MINISTRY OF EDUCATION

ART AND DESIGN FOUNDATION for Senior High Schools

TEACHER MANUAL



Year 3

NATIONAL COUNCIL FOR CURRICULUM & ASSESSMENT OF MINISTRY OF EDUCATION

MINISTRY OF EDUCATION

REPUBLIC OF GHANA

Art and Design Foundation

for Senior High Schools

Teacher Manual

Year Three

NATIONAL COUNCIL FOR CURRICULUM & ASSESSMENT OF MINISTRY OF EDUCATION

ART AND DESIGN FOUNDATION TEACHER MANUAL

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Introduction

The National Council for Curriculum and Assessment (NaCCA) has developed the third and final set of curriculum materials to support the implementation of the new Senior High School curriculum.

This Year Three Teacher Manual for Art and Design Foundation covers all aspects of the content, pedagogy, teaching and learning resources, and assessment required to effectively support learners in their final year of Senior High School. It contains information for all 24 weeks, including the nine key assessments required for the Student Assessment Portal (SAP). All the necessary information for the SAP has been included in the Year Three Teacher Manual to simplify the development of weekly learning plans, meaning that teachers have a single reference document.

The Year Three Teacher Manual has two main objectives:

- To support learners to consolidate and deepen their understanding of the content, pedagogy, and assessment across all three years of the new Senior High School curriculum in preparation for the West Africa Senior Secondary Certificate Examination (WASSCE).
- To equip teachers with the tools and resources needed to deliver revision-focused, assessment-led lessons that build on the knowledge learners have acquired from Year One to Year Three.

In this third year, teachers will be supporting learners to prepare for the WASSCE. Each section of the Teacher Manual is therefore structured around the highest Depth of Knowledge (DoK) levels, allowing learners to build progressively on knowledge acquired from Year One to Year Three. For each week, learning tasks and pedagogy are built around the assessment, ensuring that classroom activities directly prepare learners for the demands of the examination. Two sets of sample examination papers are also provided — one administered at Week 10 as a first semester practice examination, and one at Week 20 as a mock examination — to gauge learners' competencies and identify areas requiring remediation.

To further support teachers in delivering Year Three, NaCCA, working with the Ghana Education Service, has developed a subject-specific App for each subject using the Playlab AI platform. These Ghanaian-owned Apps — the first of their kind at this scale in Africa — are directly linked to the revised curriculum and will assist teachers in:

- holding their weekly Professional Learning Community (PLC) sessions

- developing weekly learning plans and applying the learner-centred pedagogies and varied modes of assessment required for the new SHS curriculum
- incorporating differentiation, Social and Emotional Learning (SEL), and Gender Equality and Social Inclusion (GESI) into lessons

Information about how to use the Apps, including QR codes, is provided in the Year Three Subject-Specific PLC Handbooks.

The Year Three PLC sessions have been revised in response to findings from the 2025 annual evaluation survey. The survey confirmed that teachers have made strong progress in lesson planning, use of varied instructional methods, ICT integration, and modes of assessment. To address the identified gap in explaining concepts clearly using examples familiar to learners, each PLC session now includes a dedicated Content Exploration segment. This ten-minute segment brings the subject group together to work through one challenging problem or concept from the week's Teacher Manual content — not to plan how to teach it, but to ensure that every teacher in the group fully understands it. Each PLC session continues to include:

- Planning and Reviewing of Learning Plan (45 minutes) — using the subject-specific App to explore content, plan lessons, and prepare the week's key assessment
- Content Exploration (10 minutes) — collaborative group work on a challenging problem or concept from the week's content
- Enactment (30 minutes) — teaching an activity from the learning plan with structured peer observation and feedback
- Reflection (5 minutes) — sharing views on the session and identifying next steps

The PLC sessions in Year Three also place particular emphasis on connecting the week's content to equivalent topics taught in Years One and Two. Teachers are encouraged to note the recap weeks signposted throughout the Teacher Manual and to use the App to explore how content across all three years links together.

As in previous years, teachers are expected to integrate National Values, Gender Equality and Social Inclusion (GESI), Social and Emotional Learning (SEL), and 21st-century skills into their learning activities, assessment tasks, and rubrics and mark schemes. The subject-specific App will support teachers in doing this throughout the year.

NaCCA acknowledges the dedication of the teachers who have implemented the new curriculum across Years One and Two and recognises that Year Three represents both the culmination of that effort and a critical moment for learners. The Year Three Teacher Manual and its accompanying resources have been developed to ensure that every learner — regardless of background, ability, or school context — is fully prepared to demonstrate what they know and can do in the WASSCE and to progress confidently to further studies, the world of work, and adult life.

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SECTION 1: CONTEMPORARY GHANAIAN ART AND AFRICAN ART

STRAND: THE CREATIVE JOURNEY (FROM CAVES TO 21ST CENTURY)

Sub-Strand: ART ACROSS TIME

Learning Outcome: *Apply knowledge of the characteristics of contemporary Ghanaian art and design works, artists/designers, and their exhibition strategies, and their effects on global cultural institutions and 21st-century Ghanaian culture.*

Content Standard: Demonstrate understanding of contemporary Ghanaian artists and works from 2001 to the present, in terms of materials, processes, and applications, as a foundation for creating artworks that reflect issues in contemporary Ghanaian society.

INTRODUCTION AND SECTION SUMMARY

This section is a seven-week exploration of contemporary Ghanaian and African art that provides students with a comprehensive framework for understanding, analysing, and evaluating the significant contributions of African artists to both local and global art. It begins with a focused analysis of Ghanaian art practices and gradually expands to the broader context of contemporary African art. The section also aims to develop learners' critical thinking abilities through careful analysis of materials, techniques, cultural influences, and artistic impacts. Eventually, learners will engage with contemporary African artistic expressions from the dual angle of cultural artefacts. This will help them shape their worldview of modern identity, educational practices, and global art discourse. Drawing from the knowledge and skills acquired in African Art from the first and second years, this section will impact the practice of learners and will help them to critically analyse artworks within their cultural contexts, appreciating the intricate connections between art, culture, and society in Ghana. This section guides students through a well-planned progression from specific Ghanaian artistic contexts to broader African art movements. The learning indicators to be covered by the section are:

- **Week 1**: *Reflect and document contemporary Ghanaian art in terms of materials, fabrication methods, applications, and educational relevance.*
- **Week 2:** *Evaluate and explain the contributions of contemporary Ghanaian art and artists to the Ghanaian art scene.*

- **Week 3:** *Analyse and explain the impacts of contemporary Ghanaian art on the Artworld.*
- **Week 4:** *Categorise and explain contemporary African Art*
- **Week 5:** *Discuss the contributions of African contemporary art and artists to art institutions in Africa.*
- **Week 6:** *Analyse and explain the impacts of contemporary African art in the Artworld.*
- **Week 7:** *Identify and discuss the major milestones of contemporary art.*
- **Week 8:** *Analyse and explain the impacts of modern art on Contemporary African art*

The Learning Indicators captured under the Introduction and summary, will be built directly on learning areas from Years 1 and 2. The mastery of design elements, visual communication, and basic analysis now supports more advanced work. Previously Learners identified and described design concepts, will now analyse their impact, evaluate their effectiveness, and make informed judgments about contemporary approaches. This progression from understanding to critical evaluation represents the natural development of the design thinking abilities.

Recap indicators for the section

Year 1	Week 1: Record and analyse the major indigenous Ghanaian Art periods and artworks in terms of materials, methods of fabrication, uses, and socio-cultural relevance. Week 2: Describe the contributions of the major indigenous Ghanaian Art periods and artworks to the Art history of Ghana. Week 3: Identify and explain the role of materials in the environment used as basic media for creative expression in indigenous Ghanaian Art. Week 4: Research and record myths and legends in major indigenous African cultures and their artworks. Week 5: Evaluate the impact of indigenous artworks on African cultures.
Year 2	Week 1a: Identify and document Modern Ghanaian artists and their artworks from the 1920s to 1985 in relation to materials, methods, and uses. Week 1b: Evaluate the contributions of Modern Ghanaian Artists and their artworks to the history of Ghana Week 2: Classify Modern African art and changes that occurred in art making from 1900 to the 21st Century in relation to materials, methods, and their socio-cultural contexts. Week 3: Analyse the impact of Modern African Art and Design works on society.

SUMMARY OF PEDAGOGICAL EXEMPLARS

In teaching contemporary African Art, there is a need to employ varied pedagogical approaches centred on dialogue and collaborative investigation. Through Talk for Learning strategies, learners can engage in discussions that evolve from introductory conversations to analytical dialogues about artistic materials, techniques, and socio-cultural contexts. By allowing the conversations to happen in collaborative groups, learners will be able to document timelines, analyse exhibition strategies, and solve increasingly complex challenges. It will also help them to investigate and deduce artists' contributions to national scenes, categorise works across multiple dimensions, and explain the conceptual foundations that place contemporary African art in global conversations. Through experiential learning, the boundaries between the classroom and the real world of art can be merged. Experiential components such as studio visits, visual documentation, and exhibition analysis can give learners direct contact with creative processes and curatorial decisions. An outstanding aspect of the pedagogical strategies is their universal design that ensures all learners, regardless of physical abilities, language backgrounds, or learning preferences fully participate. The physical and intellectual spaces have been adapted to accommodate visual and hearing needs, linguistic diversity, respect cultural sensitivities around religious and traditional elements in artwork and ensure physical accessibility for all body types. In sum, the use of varied pedagogical strategies is to help the ultimate understanding of contemporary African artistic expression by the learner.

ASSESSMENT SUMMARY

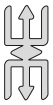
This comprehensive assessment strategy evaluates students' understanding of contemporary Ghanaian and African art across multiple learning levels through authentic tasks aligned with pedagogical approaches.

For collaborative examinations of artworks and exhibition strategies, group research portfolios assess students' ability to document and analyse contemporary Ghanaian artists' practices. Assessment criteria focus on research depth, analytical quality and collaborative contribution, progressing from factual documentation (Level 1) to critical contextualisation (Level 4).

Experiential learning activities are assessed through structured observation reports where students record and analyse studio visits. These reports evaluate observational skills, technical understanding and critical reflection, with assessment criteria examining both descriptive accuracy and analytical depth.

Problem-based learning about artists' contributions is assessed through case study presentations where groups analyse specific artists' impact on the Ghanaian art scene. Assessment employs rubrics examining research quality, analytical rigour and presentation effectiveness.

Throughout all eight weeks, assessment progresses systematically from recall-based identification of materials and techniques (Levels 1-2) to strategic analysis of artistic contributions (Level 3) and finally to extended critical evaluation of contemporary art's broader impacts (Level 4). This progressive approach ensures comprehensive evaluation while supporting students' development from basic understanding to sophisticated critical analysis.



Note

A variety of assessment modes should be implemented to evaluate learners' understanding and performance in the concepts covered in this section. It is essential for teachers to conduct these assessments regularly to track students' progress effectively. You are encouraged to administer the recommended assessments each week, carefully record the results, and submit them to the Student Assessment Portal (SAP) for documentation.

The assessments are:

Indicators	DOK Level	Assessment Strategy and/or Mode
LI 1. Reflect and document contemporary Ghanaian art in terms of materials, fabrication methods, applications, and educational relevance.	4	Critiquing and Oral Presentation
LI. 2. Evaluate and explain the contributions of contemporary Ghanaian art and artists to the Ghanaian art scene.	3	Research Assessment
LI 3. Analyse and explain the impacts of contemporary Ghanaian art on the Artworld.	3	Critiquing and Evaluating
LI 4: Categorise and explain contemporary African art.	4	Group Project
LI 5. Discuss the contributions of African contemporary art and artists to art institutions in Africa.	3	Essay
LI 6. Analyse and explain the impacts of contemporary African art in the Artworld.	3	Mid-Semester Examination
LI 7. Identify and discuss the major milestones of contemporary art.	4	Proposal Writing
LI 8. Analyse and explain the impacts of modern art on Contemporary African art	3	Essay Writing

WEEK 1

Learning Indicator: *Reflect and document contemporary Ghanaian art in terms of materials, fabrication methods, applications, and educational relevance*

FOCAL AREA: 1. ELEMENTS OF CONTEMPORARY GHANAIAN ART (2001 TO THE PRESENT)

Introduction

Contemporary Ghanaian art represents the vibrant creative expression that has emerged in Ghana from 2001 to the present. This period has witnessed a remarkable transformation in Ghanaian art, characterised by innovation, experimentation, and a global outlook while maintaining connections to Ghana's rich cultural heritage. Contemporary Ghanaian artists have gained international recognition for their unique perspectives, technical skills, and ability to address both local and global issues through their work.

Materials and Medium

Traditional Materials Reimagined

Contemporary Ghanaian artists have revitalized traditional materials, infusing them with new meaning and applications. The use of kente cloth extends beyond traditional clothing into mixed media installations. Artist Serge Attukwei Clottey pioneered the "Afrogallonism" movement, transforming yellow plastic gallons (originally used for storing cooking oil) into tapestries that comment on consumption and environmental issues in Ghana. These iconic yellow jerrycans have become symbols of water scarcity in many Ghanaian communities and speak to broader environmental concerns.



Figure 1.1: *Serge Attukwei Clottey. Wishing Well. 2021. Yellow plastic jerrycans, wire. Desert X project.*

Source: https://artincontext.org/serge-attukwei-clottey/

Figure 1.1 shows a picture of a large outdoor art installation made up of rectangular yellow, orange, and some red tiles or blocks. The blocks are arranged to form two cube-shaped structures and a pathway on the ground, all in the same colour pattern. The cubes and path are set on a grassy area with scattered trees and a blue sky with some clouds in the background.

El Anatsui, though Ghaianan-born but working in Nigeria for many years, revolutionised the use of discarded bottle caps and aluminium scraps, weaving them with copper wire into massive, shimmering tapestries that reference traditional kente while addressing global consumerism. His monumental works, which sell for millions at international auctions, have redefined what African art can be on the global stage.



Figure 1.2: *El Anatsui. The Reinvention of Sculpture.*
Source: *https://www.thisiscolossal.com/wp-content/uploads/2022/03/anatsui_10.jpg*

Figure 1.2 shows a large, textured wall sculpture made from metallic materials. The artwork is mounted on a white gallery wall and covers a large portion of it, making the person standing nearby appear small in size. The sculpture appears to be made from crumpled, folded, and layered metal pieces, with dominant colours of gold, silver, yellow, and hints of red. The surface is highly reflective and uneven, creating a dynamic, almost fabric-like appearance despite being made of metal.

Technological Media

Zohra Opoku combines photography with textile techniques to explore identity and heritage. Her series "Handshakes" investigates Ghanaian funeral culture through screen-printed textiles and haunting photographic portraits that navigate the space between tradition and modernity.

Bernard Akoi-Jackson utilises multimedia platforms including performance, video, and installation to create immersive experiences that challenge viewers' perceptions. His practice includes "Kpakpo Shitor," a satirical persona through which he critiques social norms and political issues using humour and provocation.



Figure 1.3: *Bernard Akoi-Jackson. Untitled. Performance.*

Source: *IMAGESFORSTREETPHOTOGRAPHY (2020)*
https://ibandmagazine.wordpress.com/wp-content/uploads/2020/05/ben0-1664231642.jpg

Figure 1.3 shows the picture of a man standing in the middle of a street. He is wearing traditional African attire, including a brightly coloured kente cloth draped over one shoulder and an orange cloth tied around his waist. He is barefoot except for sandals and has gold paint or powder on his feet and lower legs. He is holding the edges of his garment with both hands. In the background, there are several people, some dressed casually and others in colourful clothing, with buildings lining both sides of the street.

Found Objects and Recycled Materials

Repurposing found objects is central to contemporary Ghanaian art. Ibrahim Mahama's large installations using old cocoa jute sacks explore labour, globalisation, and post-colonialism. In Accra and Kumasi, artists turn e-waste from Agbogbloshie into sculptures, raising awareness of environmental issues while showing creative reuse of discarded technology.

Themes and Subject Matter

Cultural Identity and Heritage

Contemporary Ghanaian artists actively engage with questions of cultural identity in a rapidly globalising world. Kwame Akoto-Bamfo's "Ancestor Project" consists of concrete sculptural portraits that memorialise victims of the transatlantic slave trade, creating a connection between past and present. His installation at the National Memorial for Peace and Justice in Montgomery, Alabama, demonstrates how contemporary Ghanaian art now speaks to global audiences about shared historical traumas.

Urbanisation and City Life

The rapid transformation of Ghana's urban landscapes, particularly Accra and Kumasi, features in contemporary art. Bright Tetteh Ackwerh's satirical illustrations and street art offer sharp commentary on urban issues, political corruption, and social challenges. His "Yellow is the Colour of Water" series criticises government inaction on water pollution with biting humour and accessible visual language that resonates with ordinary Ghanaians.



Figure 1.4: *Jeremiah Quarshie. Yellow is the Colour of Water series, Acrylic on canvas, 2015, 122 x 152 cm.*

Source: *https://www.gallery1957.com/exhibitions/23-jeremiah-quarshie-yellow-is-the-colour-of-accra-gallery-i/*

Figure 1.4 shows a young black woman sits regally against a backdrop of large yellow plastic jerry cans, which are stacked to resemble a throne. She wears a blue and red dress with a quilted texture and a white sash that reads "MISS WORLD AFRICA." Her posture is relaxed, with one arm draped over the side and the other resting on her lap, and she gazes confidently at the viewer. The background is dark, making the bright yellow jerry cans and her colourful dress stand out vividly.

Environmental Concerns

Environmental issues like galamsey, deforestation, and plastic waste are key themes in contemporary art. Paa Joe's fantasy coffins, based on Ga funeral traditions, now include endangered animals to highlight ecological loss. His Teshie workshop blends tradition with modern environmental concerns.

Political Commentary and Social Justice

Contemporary Ghanaian artists often tackle politics and social justice. Godfried Donkor, for example, uses collage and painting to explore power, race, and commerce. His

"Financial Times" series blends Victorian imagery with modern media to reflect colonial and economic legacies.

Gender and Sexuality

Explorations of gender roles, women's experiences have gained prominence despite social conservatism. Elisabeth Efua Sutherland combines performance, digital media, and traditional storytelling to challenge gender norms and reimagine Ghanaian folklore from feminist perspectives while honouring cultural heritage.

Diaspora Experiences and Global Connections

Many contemporary Ghanaian artists address themes of migration, diaspora, and transnational identity. Larry Achiampong, a British-Ghanaian artist, explores memory, migration, and post-colonial identity through film, sculpture, and sound installations. His "Relic Traveller" series imagines a pan-African alliance set in a future where Africa has unified, using speculative fiction to reimagine the continent's possibilities.

Techniques and Styles

Hybridity and Fusion

Contemporary Ghanaian art is characterised by stylistic hybridity, blending traditional African aesthetics with global influences. Gideon Appah's dreamlike paintings combine personal memories, folklore, and popular culture into surreal landscapes that defy easy categorisation. His work integrates elements from Ghanaian movie posters, traditional symbolism, and international art movements.

Digital and New Media Innovation

Digital technology has enabled new forms of artistic expression and distribution. Josephine Kuuire creates digital illustrations and animations that explore Ghanaian identity and contemporary social issues, sharing her work through social media platforms to reach younger audiences who may not frequent traditional gallery spaces.



Figure 1.5: *Josephine Kuure. Haunting self-portraits.*

Source: *https://www.designindaba.com/articles/creative-work/haunting-self-portraits-josephine-kuuire*

Figure 1.5 shows a picture of two portraits of the same person, side by side, with a distorted blur effect in the centre. On the left, the person has a neutral expression, natural skin, and no visible makeup. On the right, the same person appears with smoother skin, enhanced facial features, and makeup, including pink lipstick and more defined eyebrows. The central blur creates a transition between the two images. The background is dark, and the person has dark braided hair in both images.

Exhibition Platforms and Spaces

Gallery Network

There are a lot of galleries in Ghana. Prominent among them is the Gallery 1957, founded in 2016, which has become a leading space for contemporary Ghanaian art, representing artists internationally and hosting exhibitions that have put Ghana on the global art map.

Biennials and Festivals

Events like the Chale Wote Street Art Festival in Jamestown, Accra, have transformed public spaces into vibrant showcases for contemporary art. Started in 2011, this festival has grown from a small community event to an international gathering attracting thousands of visitors from across Africa and beyond, featuring performances, installations, and mural paintings that temporarily transform the historic district.

Alternative Spaces

Artist-run initiatives like blaxTARLINES Kumasi at KNUST (Kwame Nkrumah University of Science and Technology) have created experimental platforms for emerging artists. Founded by artist and educator kąrî'kạchä seid'ou, this collective has revolutionised art education in Ghana while creating exhibition opportunities outside the commercial gallery system. Others include the Foundation for Contemporary Art (FCA), Ghana, Nebuke Foundation, Alliance Francaise, Savannah Centre for Contemporary Art (SCCA) and the Red Clay in Tamale, the James Town Cafe, and many more.

International Representation

Ghana's debut at the 2019 Venice Biennale with the pavilion "Ghana Freedom" marked a watershed moment for contemporary Ghanaian art on the global stage. Curated by Nana Oforiatta Ayim and designed by architect David Adjaye, the pavilion featured works by El Anatsui, Ibrahim Mahama, Felicia Abban, Lynette Yiadom-Boakye, John Akomfrah, and Selasi Awusi Sosu, revealing the sophistication of Ghanaian artistic production to international audiences.



Figure 1.6: *Lynette Yiadom-Boakye. Just Amongst Ourselves series of paintings. 2019. Courtesy Lynette Yiadom-Boakye/David Levene/Corvi-Mora, London/Jack Shainman Gallery, New York*

Source: *https://edition.cnn.com/style/article/ghana-venice-biennale-2019/index.html*

Figure 1.6 shows a picture of an Art gallery interior with curved, tan-coloured walls displaying four artworks. The paintings vary in size and style, with the first on the left showing a person and birds in dark tones against a yellow background. The second artwork shows a figure in front of a tree with a yellow background. The third is a small, dark piece with a circular white area in the centre. The fourth artwork, on the right, is a large image of a person standing in an arched doorway. Through an open doorway to the right, a sign on a brick wall reads "GHANA FREEDOM" in bold white letters.

Prominent Contemporary Ghanaian Artists

Ibrahim Mahama (b. 1987)

Known for his monumental installations using jute sacks, Mahama's work addresses labour, migration, and globalisation. His massive draping of repurposed coal sacks over architectural structures have been featured at documenta 14, the Venice Biennale, and major museums worldwide. In 2019, he established the Savannah Centre for Contemporary Art (SCCA) in Tamale, creating an arts hub in northern Ghana that provides exhibition space, research facilities, and residency programs.



Figure 1.7: *Ibrahim Mahama. No stopping, No Parking, No Loading, Unity Hall, KNUST, Kumasi, Ghana, 2016, installation view. Courtesy the artist.*

Source: https://theafricanlane.com/2022/07/24/ibrahim-mahama-the-artist-makes-art-out-of-cocoa-bags-bags-and-ankara/

Figure 1.7 shows a picture of a modern multi-story building with a striking, textured facade. The front of the building is covered in vertical panels of varying shades of brown material like a draping fabric. Tall, slender palm trees are planted in a row along the front, reaching up past the first few floors. The building has white structural elements on the sides and a flat roof with two white rooftop structures visible. There are walkways and a few people on the ground in front, and the surrounding area is filled with greenery and trees.

Amoako Boafo (b. 1984)

Boafo has achieved remarkable international success with his bold, expressive portraits celebrating Black identity and beauty. His finger-painting technique creates textured, vibrant representations of Black subjects with dignity and grace. In 2020, his work was even sent to space as part of a triptych on the exterior of a Blue Origin New Shepard rocket, marking the first artwork exhibited in space.

Zohra Opoku (b. 1976)

German-Ghanaian artist Opoku explores cultural identity and personal history through textile installations, screen printing, and photography. Her work investigates the politics of dress, memory, and heritage by incorporating traditional Ghanaian textile techniques with contemporary photography and installation practices.

Serge Attukwei Clottey (b. 1985)

Founder of the GoLokal performance collective, Clottey transforms plastic gallon containers into complex tapestries and sculptures. His "Afrogallonism" project addresses environmental issues, migration, and consumption while engaging directly with his community in Labadi, Accra.

Elisabeth Efua Sutherland (b. 1991)

Combining traditional performance elements with contemporary dance and digital media, Sutherland reimagines Ghanaian folklore for modern audiences. Her interdisciplinary approach bridges generational gaps while addressing contemporary social issues through the lens of traditional storytelling.

Art Education

Art education in Ghana faces challenges, including limited resources and outdated curricula. Organisations like blaxTARLINES Kumasi at KNUST have revolutionised art education by emphasising contemporary practices and critical thinking, producing a new generation of conceptually sophisticated artists.

Market Development

While international interest in Ghanaian art has increased, developing a robust local market remains a challenge. Initiatives like the Accra Art Fair aim to cultivate local collectors while educating the public about contemporary art's cultural and investment value.

Digital Frontiers

Emerging technologies offer new possibilities for creation and distribution. Virtual exhibitions, NFTs (Non-Fungible Tokens), and digital platforms are creating new opportunities for Ghanaian artists to reach global audiences without traditional gatekeepers.

Impact and Significance

Contemporary Ghanaian art has evolved from a local practice to a globally recognised movement, challenging stereotypes and celebrating the nation's rich cultural heritage. This success highlights that art can be culturally specific yet universally relevant, reshaping global conversations about creativity, identity, and social change.

Sample Class Project 1: *Matching Artists to Materials, Themes, Techniques, and Key Ideas*

Artist	Artwork / Project	Materials Used	Themes	Techniques / Styles	Key Ideas
Ibrahim Mahama	Draping of jute sacks on buildings	Used cocoa jute sacks, thread, metal,	Globalisation, labour, trade, postcolonialism	Installation art, large-scale assemblage	Explores Ghana's economic history and global trade;
Serge Attukwei Clottey	*Afrogallonism* tapestries	Yellow plastic gallons, ropes, metal wire	Environmental issues, identity consumption,	Found-object art, community performance	Raises awareness about plastic waste, water scarcity,
Zohra Opoku	*Handshakes* series	Photography, textiles, screen printing	Heritage, dress, memory, identity	Mixed-media, textile photography, layering	Investigates cultural identity and traditions in a modern context

Artist	Artwork / Project	Materials Used	Themes	Techniques / Styles	Key Ideas
Amoako Boafo	Portraits of Black subjects	Acrylic paint, fingers (no brushes)	Black identity, pride, beauty	Figurative painting, finger-painting, texture	Celebrates Black dignity and challenges stereotypes through vibrant portraiture
Elisabeth Efua Sutherland	Performance installations	Digital media, props, oral storytelling forms	Gender, folklore, feminism	Performance art, interdisciplinary art	Questions gender roles and promotes feminist perspectives within Ghanaian culture
El Anatsui	Bottle-cap tapestries	Discarded bottle caps, copper wire, aluminium	Consumerism, waste, tradition	Sculptural weaving, shimmering tapestry installations	Critiques global consumer culture while honouring African textile traditions
Bernard Akoi-Jackson	*Kpakpo Shitor* performance	Video, installation props, satire	Politics, humour, societal critique	Conceptual art, persona performance	Uses satire to provoke reflection on political and social issues

Assessment Criteria	Marks	Description
Accuracy of Matching	15	Correctly matching artists to their work, materials, themes, and techniques
Understanding of Key Ideas	10	Demonstrating understanding of the key ideas behind each artist's work
Clarity of Explanation	10	Clear and concise explanations for the matches
Presentation and Organisation	5	Neatness, organisation, and overall presentation quality

FOCAL AREA 2: CONTEMPORARY AFRICAN ART

Introduction

Contemporary African Art, created by artists from Africa or with African roots since the late 1900s, goes beyond traditional styles. These modern works address themes like identity, politics, urban life, and the environment. Since the early 2000s, African art has gained global recognition, challenging Western art's dominance and finding a place in major museums and galleries, all while reflecting Africa's economic growth and cultural pride.

Key Characteristics of Contemporary African Art

Blending Old and New

Contemporary African artists blend traditional cultural elements with modern approaches. For example, Ghanaian sculptor Kwame Akoto-Bamfo creates concrete sculptures that reference Akan funeral practices while addressing modern issues like slavery's legacy. South African artist Esther Mahlangu applies traditional Ndebele patterns to contemporary items, like BMW cars, showcasing the reimagining of cultural traditions.



Figure 1.8: *Kwame Akoto-Bamfo, Nkyinkyim Installation, 2018, National Memorial for Peace and Justice, Montgomery, Alabama (photo: Michael Delli Carpini, CC BY-NC 2.0)*

Source: *https://smarthistory.org/seeing-america-2/the-national-memorial-for-peace-and-justice-equal-justice-initiative/*

Figure 1.8 shows an outdoor composition of eight human figures in sculptural form, mounted on a flat concrete floor. Three of the figures are standing, two kneeling, and one squatting, all facing different directions. One of the standing figures is a lady with a baby resting on her left arm. All the figures are almost naked and have been chained from the neck, hands, and ankles, except the baby. The background of the picture shows green vegetation and a wall.



Figure 1.9: *Esther Mahlangu. Then I Knew I Was Good at Painting. 2024. A Retrospective.*

Source: *https://www.press.bmwgroup.com/south-africa/article/detail/T0439118EN/bmw-celebrates-artistic-journey-of-esther-mahlangu?language=en*

Figure 1.9 shows a picture of a car covered in vibrant, geometric, and colourful patterns, like traditional African wall painting. It is displayed in an indoor space that resembles a gallery or museum, with white columns and high ceilings. The patterns on the car include triangles, diamonds, and lines in colours of green, yellow, pink, blue, black, and white. Standing next to the car is a woman dressed in traditional African attire, which includes a beaded blanket, neck rings, and arm rings. She is smiling and touching the car.

Everyday Materials Used Creatively

Contemporary African art features innovative uses of readily available materials. Artists transform ordinary objects into extraordinary artworks, often out of creativity and necessity. Ghanaian artist El Anatsui, for instance, creates large tapestries from discarded bottle caps and aluminium strips, linking these materials to trade histories and traditional textile arts.

Telling Important Stories

Contemporary African art serves as a medium for addressing complex social and political issues. Many artists use their work to explore challenging topics such as post-colonial identity, political corruption, gender inequality, and environmental degradation. Nigerian photographer Akinbode Akinbiyi documents urban African life with images that reveal both challenges and resilience in rapidly changing cities.



Figure 1.10: © *Akinbode Akinbiyi. Bar Beach, Victoria Island, Lagos. 2006. 23 5/8 × 23 5/8»» (60 × 60 cm). Inkjet Print.*

Source: *https://www.moma.org/collection/works/434678*

Figure 1.10 shows a picture of a group of ladies dressed in white. Their attire consists of long white dresses and head coverings. In the foreground, is a child in a patterned outfit with dark circular shapes against a white background. The child is standing in behind the adults. The setting is an outdoor scene, with a coconut tree and wooden structures visible in the background.

Breaking Boundaries

Today's African artists blend various media and art forms, resulting in innovative works. Kenyan-British artist Michael Armitage uses Lubugo bark cloth, traditionally from Uganda, instead of canvas, merging European art history with East African imagery and storytelling. This experimentation with materials and scale has led to unique creations found globally.

Global Connections

Contemporary African artists, deeply rooted in African experiences, engage with global art movements. For example, Yinka Shonibare CBE explores cultural hybridity through sculptures featuring figures in "Dutch wax" fabrics, which reflect a complex colonial history. Similarly, Ghanaian artist Amoako Boafo has gained recognition for his portrait paintings that celebrate Black identity and contemporary portraiture traditions.

The Rise of Digital Art and New Media

Contemporary African artists are using digital technologies and new media to create innovative works that are in line with our technological age. Kenyan artist Osborne Macharia crafts "Afrofuturist" photographic narratives that blend traditional elements with science fiction, while Ghanaian artist Jonathan Dotse uses virtual reality storytelling

from African perspectives. These digital methods enable artists to connect with global audiences about African identities and communities today.

Biennales and Art Festivals as Cultural Platforms

Major art festivals and biennales are key platforms for contemporary African art and cultural exchange. Events like the Dakar Biennale in Senegal, Lagos Photo Festival in Nigeria, and Bamako Encounters in Mali provide visibility for artists. In Ghana, the Chale Wote Street Art Festival turns Accra's Jamestown into a public art gallery, with performances and murals that engage with local communities.

Reclaiming Historical Narratives

Contemporary African art reinterprets historical narratives influenced by colonial views. Artists are exploring archives and challenging official histories to offer alternative accounts of African experiences. For example, Beninese artist Thierry Oussou's installation "Impossible Is Nothing" addresses the 1897 looting of Benin's royal treasures by British forces. Through these efforts, contemporary African artists reclaim the representation of African histories, contesting simplistic or Eurocentric perspectives of the continent's past and present.

Themes in Contemporary African Art

Contemporary African artists explore many important ideas in their work. These themes help us understand what matters to people across the African continent today. Here are some key themes you'll find in contemporary African art:

- Identity and Heritage
- Colonial History and Its Aftermath
- Urban Life and Rapid Change
- Environmental Concerns
- Gender and human right
- Migration and Diaspora
- Spirituality and Belief
- Technology and the Future
- Everyday Life and Joy
- Global Connections

Understanding these themes helps us appreciate contemporary African art more deeply. As you look at artworks, think about which themes the artist might be exploring and what they might be trying to say about life in Africa today.

Notable Contemporary African Artists

Artists from Ghana

1. El Anatsui (Born 1944)

a. Brief Biography

El Anatsui is a Ghanaian-born artist who has worked mainly in Nigeria since 1975. He is internationally known for transforming everyday materials into large, beautiful sculptures and hanging works. In 2015, he received the Golden Lion for Lifetime Achievement at the Venice Biennale.

b. Artistic Philosophy / Themes

His work explores African culture, history, identity, trade, consumption and the transformation of ordinary objects into meaningful works of art.

c. Preferred Media & Techniques

He uses discarded materials such as aluminium bottle caps, metal pieces, wood and other found objects. He joins, folds, stitches and arranges these materials into large, flexible forms.

d. Major Works (with dates)

- Man's Cloth (1998)
- Earth's Skin (2007)
- Dusasa I (2007)

e. Contribution to Contemporary Ghanaian / African Art

El Anatsui has helped bring African materials, symbols and creative traditions into international contemporary art. His innovative use of discarded materials has also encouraged artists to explore recycling and found objects as artistic media.

2. Ibrahim Mahama (Born 1987)

a. Brief Biography

Ibrahim Mahama is a Ghanaian contemporary artist known for creating large-scale installations from materials connected to Ghana's economic and industrial history. His works have been exhibited internationally.

b. Artistic Philosophy / Themes

His art examines labour, trade, migration, economic systems, colonial history and the movement of goods and people. He often uses materials that carry traces of human use and work.

c. Preferred Media & Techniques

Mahama commonly uses used jute sacks, fabrics, wood, metal and other found materials. He stitches, joins and covers large architectural spaces with these materials to create installations.

d. Major Works (with dates)

- Out of Place (2015)
- Non-Orientable Nkansa (2017)
- Parliament of Ghosts (2019)

e. Contribution to Contemporary Ghanaian / African Art

Mahama has expanded the possibilities of installation art in Ghana and Africa. His use of everyday industrial materials draws attention to Ghana's economic history, labour and international trade.

3. Amoako Boafo (Born 1984)

a. Brief Biography

Amoako Boafo is a Ghanaian artist known for expressive portraits of Black people. He has gained international attention for his distinctive technique of painting figures with his fingers.

b. Artistic Philosophy / Themes

His work celebrates Black identity, individuality, dignity, beauty and everyday life. His portraits challenge limited representations of Black people by presenting them as confident and complex individuals.

c. Preferred Media & Techniques

He mainly works with oil on canvas and uses his fingers to apply and manipulate paint. His bold marks and simplified forms give his portraits a distinctive appearance.

d. Major Works (with dates)

- Yellow Dress (2018)
- Black Boy (2019)
- Grace (2019)

e. Contribution to Contemporary Ghanaian / African Art

Boafo has brought Ghanaian approaches to portraiture to a wide international audience. His work has contributed to contemporary discussions about Black identity and representation. His Suborbital Triptych was also carried on Blue

Origin's New Shepard spacecraft in 2021, featuring portraits of Boafo, his mother and a friend's mother.

4. Zohra Opoku (Born 1976)

a. Brief Biography

Zohra Opoku is a Ghanaian-German contemporary artist whose work explores identity, memory, family and Ghanaian cultural traditions. She works across photography, textiles, printmaking and installation.

b Artistic Philosophy / Themes

Her work examines how clothing, textiles, family histories and cultural traditions influence personal and collective identity. She also explores questions of heritage, belonging and memory.

c Preferred Media & Techniques

Opoku uses photography, textiles, screen printing, collage and installation. She often combines photographs and fabrics to create layered visual stories.

d Major Works (with dates)

- The Women of My Life (2017)
- Love After Love (2018)
- Asylum (2021)

e Contribution to Contemporary Ghanaian / African Art

Opoku has expanded the use of textiles and photography in contemporary Ghanaian art. Her work connects personal experiences with wider questions of Ghanaian culture, history and identity.

Artists from Other African Countries

1. Julie Mehretu (Born 1970, Ethiopia)

a. Brief Biography

Julie Mehretu is an Ethiopian-born artist based in the United States. She is internationally recognised for large, complex abstract paintings and drawings.

b. Artistic Philosophy / Themes

Her work explores cities, migration, political change, conflict, architecture and the complexity of modern life. She often combines different visual layers to suggest movement and social change.

c. Preferred Media & Techniques

She works mainly with acrylic paint, ink and pencil on canvas. She layers maps, architectural plans, lines, marks and abstract forms to create complex compositions.

d. Major Works (with dates)

- Mogamma (2012)
- Mogamma (A Painting in Four Parts) (2012)
- Epigraph, Damascus (2016)

e .Contribution to Contemporary African Art

Mehretu has demonstrated how African experiences can inform large-scale abstract art. Her work has helped broaden international understanding of contemporary African artistic practices.

2. Njideka Akunyili Crosby (Born 1983, Nigeria)

a. Brief Biography

Njideka Akunyili Crosby is a Nigerian-born artist based in the United States. Her work combines painting, drawing, photography and collage to reflect her experiences of living between Nigerian and American cultures.

b. Artistic Philosophy / Themes

Her art explores family, migration, cultural identity, memory and the experience of belonging to more than one culture.

c. Preferred Media & Techniques

She combines acrylic painting with photographic transfers, drawing, collage and printmaking. Her works often contain images from Nigerian popular culture, family photographs and everyday domestic life.

d. Major Works (with dates)

- Mama, Mummy and Mamma (2014)
- The Beautyful Ones Are Not Yet Born (2017)
- Still You Bloom in This Land of No Gardens (2019)

e. Contribution to Contemporary African Art

Akunyili Crosby has introduced personal and cross-cultural experiences into contemporary painting. Her work shows how Nigerian and American visual cultures can be combined to tell stories about identity and belonging.

3. Edson Chagas (Born 1977, Angola)

a. Brief Biography

Edson Chagas is an Angolan photographer known for photographs that explore urban life, consumption and identity. His project Luanda, Encyclopedic City represented Angola at the 2013 Venice Biennale.

b. Artistic Philosophy / Themes

His work examines cities, consumer culture, waste, memory and the relationship between people and their surroundings.

c. Preferred Media & Techniques

Chagas mainly uses photography. He carefully places objects and photographs them against urban backgrounds, creating contrasts between consumer goods and the city environment.

d. Major Works (with dates)

- Luanda, Encyclopedic City (2013)
- Found Not Taken (2013)
- Type (2014)

e. Contribution to Contemporary African Art

Chagas has used photography to present new ways of looking at Luanda and contemporary African cities. Luanda, Encyclopedic City won the Golden Lion for Best National Participation for Angola at the 2013 Venice Biennale.

4. Wangechi Mutu (Born 1972, Kenya)

a. Brief Biography

Wangechi Mutu is a Kenyan-American artist known for imaginative collages, sculptures, films and installations. Her works often combine human, animal and mechanical forms.

b. Artistic Philosophy / Themes

Mutu explores femininity, beauty, the body, colonial history, race, identity and Afrofuturism. She often transforms the human body into unusual and powerful forms.

c. Preferred Media & Techniques

She uses collage, painting, sculpture, photography, found images and mixed media. She cuts, combines and layers images and materials to create surreal figures.

d. Major Works (with dates)

- Histology of the Different Classes of Uterine Tumors (2004)
- Yo Mama (2003)
- Water Woman (2017)

e. Contribution to Contemporary African Art

Mutu has helped develop new visual approaches to African identity and femininity. Her combination of African imagery, popular culture, science-fiction ideas and traditional references has contributed to the growth of Afrofuturist art.

5. William Kentridge (Born 1955, South Africa)

a. Brief Biography

William Kentridge is a South African artist known for drawing, animation, sculpture, theatre and opera. His work often reflects on South Africa's history and wider human experiences.

b. Artistic Philosophy / Themes

His art explores memory, history, apartheid, politics, inequality, human relationships and the effects of social change.

c. Preferred Media & Techniques

Kentridge is particularly known for charcoal drawing and stop-motion animation. He creates drawings, photographs them, changes the drawings and photographs them again to produce moving images.

d. Major Works (with dates)

- Johannesburg, 2nd Greatest City After Paris (1989)
- Felix in Exile (1994)
- The Refusal of Time (2012)

e. Contribution to Contemporary African Art

Kentridge has demonstrated how drawing, animation, theatre and performance can be combined to tell complex stories. His work has brought South African history and contemporary African experiences to international audiences.

Contemporary African Art Movements and Platforms

Working Together: Art Groups and Artist Spaces

Replace with: Contemporary African art is also supported by artist groups, galleries, universities, cultural organisations and independent art spaces. These platforms provide opportunities for artists to experiment, learn from one another, exhibit their work and engage with communities.

In Ghana, organisations and spaces such as the Foundation for Contemporary Art (FCA), Ghana, and blaxTARLINES KUMASI at Kwame Nkrumah University of Science and Technology (KNUST) have supported experimental contemporary art and emerging artists. They have also contributed to discussions about art, education and contemporary African culture.

In Nigeria and other parts of Africa, projects such as the Invisible Borders Trans-African Photography Project bring artists and writers together to travel across African countries. Through photography, writing and community interaction, such projects explore connections between African societies and encourage artists to look beyond national borders.

These groups and platforms show that contemporary African art is not created only by individual artists. Artists also work together through networks, exhibitions, universities, cultural organisations and artist-led spaces to develop new ideas and strengthen the African art community.

Art Festivals and Regular Events

African art festivals have become important places to show today's art. The Dak'Art Biennale in Senegal, which started in 1992, is Africa's oldest regular contemporary art festival and has helped promote African artists.

In Ghana, the Chale Wote Street Art Festival in Jamestown, Accra, has turned public spaces into lively showcases for contemporary art since 2011. This festival brings together local and international artists for performances, installations, and wall paintings.

Online Art Platforms and Virtual Galleries

Digital platforms like African Digital Art Network provide spaces for digital artists across the continent, while online galleries like Artsy's African Contemporary Art section help more people around the world see African artists' work.

Museum Acquisitions and Exhibitions

In Africa, new museums dedicated to contemporary art are emerging. The Zeitz Museum of Contemporary Art Africa (MOCAA) in Cape Town, which opened in 2017, is the largest museum of contemporary African art in the world. Ghana's ANO Institute of

Arts and Knowledge, founded by historian and filmmaker Nana Oforiatta Ayim, works to document and preserve Ghana's cultural heritage while supporting contemporary artistic production.

Contemporary African Art Today

African art is one of the most exciting creative fields today. Artists from the continent challenge misconceptions, address social issues, and envision Africa's future. For Ghanaian students, studying this art highlights how creativity can address modern challenges while embracing cultural roots. This vibrant field provides opportunities for young Ghanaians to engage as artists, exhibition organisers, critics, or art enthusiasts in important conversations about Africa's role in the world.

Mini Project 1: Contemporary Ghanaian Art Expression (*this project is to be done for weeks one and two)*

Duration: 3 hours

Brief: Create a 2D artwork inspired by contemporary Ghanaian art practices.

Suggested Materials

- Paper/canvas, paint, markers, coloured pencils
- Recycled materials (newspapers, fabric scraps, bottle caps)
- Adhesives, scissors, cutting tools
- Reference images of contemporary Ghanaian art

Project Structure

Introduction

- Learners should discuss a brief overview of contemporary Ghanaian art (2001-present in terms of materials, techniques, and themes and then work on convenient groups of 2-4 in a group

Creation

- Groups choose one of the suggested areas to create a 2D artwork inspired by contemporary Ghanaian approaches, after which they will document the process with brief notes

Suggested 2D Artworks. (*Groups can choose only one to work on or generate new ideas in line with the suggested artworks.***)**

1. **Mixed Media Collage Portrait**
    - Create a portrait combining newspaper/magazine cutouts with paint inspired by artists like Serge Attukwei Clottey or El Anatsui's approach to recycled materials

2. **Urban Landscape Collage**
    - Depict Ghanaian urban scenes using layered paper, fabric, and paint. Focus on themes of urbanisation and development. Incorporate Ghanaian proverbs or sayings with visual elements
3. **Environmental Commentary Piece**
    - Address environmental issues using found/recycled materials by creating textural elements through material manipulation

KEY ASSESSMENT

Level 4: Critiquing and Oral Presentation

1. Material exploration and application
2. Connection to contemporary Ghanaian art practices
3. Expression of socio-cultural themes
4. Technical execution within time constraints

Reflection and Presentation (30 minutes)

1. Learners complete a brief artist statement card (name, title, materials, concept)
2. Quick mounting/display of artworks in a classroom gallery format
3. Gallery walk where learners view each other's work (15 minutes)
4. Closing discussion:
    - How do our artworks reflect contemporary Ghanaian approaches?
    - What material innovations did we discover?
    - How do these works address relevant socio-cultural themes?
    - What educational applications might these works have?

Differentiation Strategies

- Provide pre-selected material kits for learners who may need additional support
- Offer template options for learners who need structural guidance
- Allow for partner work for learners who benefit from collaborative approaches
- Provide visual step-by-step guides for various techniques
- Ensure all materials are accessible for learners with physical limitations

Quick Extensions (for early finishers)

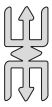
- Create a title card with an expanded artist statement
- Add additional details or elements to the artwork

- Begin sketching ideas for a companion piece
- Provide peer feedback to others still working

PLC SESSION 1

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app.
   a. The key assessment for the week is ***critiquing and oral presentation***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the presentations (NTS 3k-3q).

10 minutes	Content Exploration

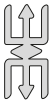
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?
- If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.
- Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 2

Learning Indicator:: *Evaluate and explain the contributions of contemporary Ghanaian art and artists to the Ghanaian art scene*

FOCAL AREA: CONTRIBUTIONS OF CONTEMPORARY GHANAIAN ARTISTS TO GHANAIAN ART

Introduction

Contemporary Ghanaian artists have transformed how art is made in Ghana and beyond through their creativity and innovations. Artists like El Anatsui, who uses bottle-cap tapestries and Amoako Boafo, who is noted for his finger-painted portraits, have put Ghana on the global art map while addressing our very important issues in society. In this lesson, we will explore how contemporary Ghanaian artists have changed the way art is done in Ghana, preserved our cultural heritage, and created new opportunities for young artists. By understanding their contributions, we will get to know how art can be a powerful tool for expressing Ghanaian identity and addressing social challenges in today's world.

Contributions of Contemporary Ghanaian Artists

Cultural Preservation

Contemporary Ghanaian artists serve as cultural guardians, breathing life into our national identity through their distinctive creations. Ablade Glover's vibrant market paintings capture the essence of Ghanaian communal spirit—his canvases alive with rhythmic movement and brilliant colour. Kofi Setordji's thought-provoking sculptures transform traditional wisdom into modern expressions that speak across generations. Through exhibitions from Accra to international galleries, these artists have elevated Ghana's cultural narrative globally, ensuring our heritage remains relevant in an increasingly interconnected world.

Economic Transformation

Contemporary artists have transformed creative expression into economic opportunities. Ibrahim Mahama's Savannah Centre exemplifies this, fostering young talents under expert guidance. These hubs generate employment through apprentices creating textiles, sculptors using reclaimed materials, and painters gaining international recognition. The impact extends beyond art, stimulating local businesses, attracting cultural tourism, and revitalising overlooked communities into vibrant cultural destinations.

Social Awakening

Art in Ghana serves as a significant social commentary rather than just decoration. Bright Ackwerh's satirical illustrations address political hypocrisy and spark important conversations about issues like environmental destruction and colonial legacies that shape Ghanaian identity. These works transform exhibition spaces into forums for discussing the nation's past, present, and future challenges and potential.

Wider Impact of Contemporary Ghanaian Artists

Global Recognition

Ghanaian artists have put their country on the world art map. El Anatsui's famous bottle-top metal cloths hang in major museums across America, Europe and Asia. Ibrahim Mahama's large sack installations have featured at the prestigious Venice Biennale. These successes bring international attention to Ghana's art scene and create opportunities for other local artists.

Innovative Techniques

Contemporary Ghanaian artists like Amoako Boafo, Larry Otoo, and Kwame Akoto-Bamfo are revolutionising art with their unique blend of traditional and modern styles. Boafo's portraits celebrate Black identity, Otoo's colourful paintings depict everyday Ghanaian life, and Akoto-Bamfo's sculptures honour ancestors and address slavery's history. Female artists like Betty Acquah and Zohra Opoku provide fresh perspectives through various media. Notable fantasy coffin maker Paa Joe preserves traditional customs. Their work, showcased in galleries from Accra to New York, creates jobs and inspires young artists through workshops at places like Gallery 1957 and Nubuke Foundation, ensuring Ghanaian art remains significant globally.

An Example of the Contribution of a Contemporary African Artist

Ibrahim Mahama: "Beyond the Jute Sacks" While Ibrahim Mahama is best known for his monumental installations using jute sacks, his artistic practice extends far beyond this signature material. Here are several important examples of his other works that demonstrate the breadth and depth of his creative vision:

"Non-Orientable Nkansa II" (2017): This installation features numerous wooden shoeshine boxes gathered from shoeshine boys in Ghana's markets. These boxes highlight the labour and economic struggles within Ghana's informal economy, elevating the often-invisible work of young Ghanaians. The title "Non-Orientable" refers to the complex interconnections between work, identity, and survival.



Figure 2.1: *Ibrahim Mahama. Non-Orientable Nkansa II. (2017)*
Source: *https://www.whitecube.com/gallery-exhibitions/non-orientable-nkansa*

Figure 2.1 shows a picture of a large room installation made up of hundreds of old, weathered wooden boxes and drawers of various sizes. The boxes are stacked and arranged tightly together, forming a dense, textured surface. The boxes and drawers are stacked from the floor to the ceiling and stretch across the central part of room. The boxes are in different shades of brown, some with peeling paint, rusted metal parts, or remnants of labels, giving the piece a rustic and aged appearance. The installation is displayed in a bright, modern gallery space with white walls, high ceilings, and large windows letting in natural light.

"Parliament of Ghosts" (2019): For an installation at the Whitworth Art Gallery, Mahama created an alternative parliament chamber using salvaged materials from Ghana's history, such as railway sleepers, school furniture, and old documents. Visitors could sit on these repurposed seats, becoming symbolic participants. The work examined the unfulfilled promises of Ghana's colonial-era railways and education systems, encouraging reflection on historical disappointments and potential futures.



Figure 2.2: *Ibrahim Mahama. Parliament of Ghosts. (2019)*
Source: *https://floraliawordsandimages.wordpress.com/2019/09/02/exhibition-review-reprocessing-abandoned-infrastructures-in-parliament-of-ghosts-ibrahim-mahama/*

Figure 2.2 shows a picture of a wooden amphitheatre-style seating inside a modern, well-lit room. The seating is arranged in two sets of bleachers facing each other, with a central aisle and metal handrails on both sides. The seats and steps are made from unfinished wood, giving a rustic appearance. At the far end of the room, there are shelves or cubbyholes made from similar wood, filled with various boxes and objects. The ceiling is arched with skylights, allowing natural light to fill the space. The floor is made of light-coloured wood, and the walls are plain white, creating a clean and open atmosphere.

"A Straight Line Through the Carcass of History" (2016-2021): This ongoing project involves the collection and display of old sewing machines once used in Ghana's textile industry. These machines represent Ghana's industrial past and the decline of local manufacturing due to global economic policies. By preserving and displaying these objects, Mahama creates a memorial to lost livelihoods while questioning the economic systems that led to their abandonment.

"Capital Corpses" (2019): This installation featured abandoned hospital equipment and furniture from healthcare facilities in Ghana. By displaying these discarded items, Mahama highlighted the challenges facing Ghana's healthcare system and the human cost of inadequate medical infrastructure. The work gained additional resonance during the global COVID-19 pandemic, which further exposed inequalities in healthcare access worldwide.

Savannah Centre for Contemporary Art (SCCA): Perhaps, Mahama's most significant contribution beyond his artwork is the establishment of the Savannah Centre for Contemporary Art (SCCA) in Tamale, northern Ghana, in 2019. This cultural centre serves as a project space, exhibition venue, research hub, and artists' residency. By creating this institution in northern Ghana, away from the more established art scene in Accra, Mahama has decentralised cultural resources and created opportunities for artists and communities often overlooked in Ghana's cultural landscape.

Red Clay Studio: Following SCCA, Mahama established Red Clay Studio, a vast converted warehouse space in Tamale that hosts exhibitions, performances, and community events. This space provides further opportunities for artistic experimentation and community engagement in northern Ghana.



Figure 2.3: *Ibrahim Mahama. Red Clay Studio. Ghana.*

Source: *https://www.africablooming.com/en/red-clay-studio-a-new-art-space-in-ghana/*

Figure 2.3 shows an aerial view of a dry, sparsely vegetated landscape in a large compound. There are at least three aircraft, including a large jet and two smaller ones, all positioned on the ground within the compound. The area is surrounded by a low wall, and there are a few buildings nearby, including a larger rectangular structure with a dark roof and some smaller outbuildings. The surrounding land is mostly open, with scattered trees and patches of grass, and a few more buildings in the distance.

Nkrumah Voli-ni Project: Named after Ghana's first president and the local name for a water hole, this ambitious project involves converting a former water supply facility into a creative space. The project aims to preserve local history while creating new possibilities for community engagement and artistic production.

"Exchange-Exchanger" (2020): This work features collections of filing cabinets and documents from Ghana's post-independence bureaucracy. These abandoned administrative materials speak to the functioning (and sometimes malfunctioning) of government systems. By preserving these discarded records, Mahama creates an alternative archive of Ghana's administrative history.

"Locomotive 1980/2021": In this ongoing project, Mahama has been working to restore an old diesel locomotive engine. This massive undertaking not only preserves an important piece of Ghana's transportation history but also transforms it into a mobile cultural space that can travel between communities, bringing art and cultural programming to different locations.



Figure 2.4: *Ibrahim Mahama. Locomotive 1980/2021.*

Source: *https://www.modernghana.com/news/1211336/sekondi-loco-under-siege-ghanaian-artist-ibrahi.html*

Figure 2.4 shows the picture of a large yellow truck with a flatbed trailer carrying an old, weathered red and yellow train locomotive. The locomotive is sitting on the trailer, and a man stands nearby. The scene shows a partially grassy and a ground with no grass. Also, there are some scattered debris, and a blue building in the background. The sky is clear with a few clouds.

"57 Forms of Liberty" (2021): For this work at Manchester International Festival, Mahama created a temporary monument using materials salvaged from Manchester's industrial past alongside materials from Ghana. The 45-foot timber structure referenced Ghana's independence in 1957 while exploring connections between Ghana and Manchester through histories of industry and trade.

Through these diverse projects, Ibrahim Mahama demonstrates his commitment to exploring Ghana's history, labour practices, and possible futures. His work consistently transforms discarded materials and forgotten spaces into powerful artistic statements that invite us to reconsider what we value and why. By looking beyond his famous jute sack installations, we can appreciate the full range of Mahama's contributions to contemporary art in Ghana and globally.

Learning Tasks

Visual Analysis (Group work) (5 min)

Show 2–3 images of contemporary artworks by Ghanaian artists (e.g., El Anatsui, Ibrahim Mahama, Zohra Opoku). Learners to identify:

- Materials used

- Dominant themes
- Artistic techniques
- Style or movement (e.g., abstraction, conceptual, installation)

Comparison Chart (10 min)
Instructions: In groups 5 to 6, complete the chart comparing Ibrahim Mahama, Amoako Boafo, and Serge Attukwei Clottey:

Materials/techniques

One key theme

Connection to Ghanaian identity

Gallery Walk (15 min)
Instructions: View five artwork reproductions around the room

Leave one comment/question on a sticky note at each station

Note two new insights gained from this activity

Environmental Art Group Discussion (10 min)
Instructions: In groups of 5-6, examine contemporary Ghanaian artists' approaches to environmental issues:

Individually brainstorm examples (2 min)

Discuss and compile your best ideas as a group (5 min)

Select a spokesperson to present your group's findings (3 min)

Concept Mapping (15 min)
Instructions: In groups of three, create a concept map connecting:

Traditional Ghanaian art

Contemporary practices

Global influences

Social issues addressed

Visual Response (20 min)

PEDAGOGICAL EXEMPLARS

1. Initiating talk for learning through Inclusive Gallery Exploration: Mixed-ability collaborative groups (5-6 students) explore contemporary Ghanaian artists' responses to globalisation through curated digital reproductions, videos, and magazines. Groups are formed with attention to gender balance and diverse learning capabilities,

generating inquiry questions that drive investigation while ensuring accommodations for learners with specific needs.

2. Structured Jigsaw Expertise Method: Students become "experts" on specific aspects (materials, fabrication methods, socio-cultural relevance, global contexts) of their chosen artist. This approach ensures all learners contribute meaningfully while developing specialised knowledge to share with peers. Students document findings in accessible digital portfolios that showcase their learning process.
3. Facilitated Problem-Based Learning: The teacher provides targeted mini-lessons and guides students to categorise their artists' work by materials, fabrication techniques, applications, and cultural significance. Adapted studio sessions allow experimentation with artists' techniques, with modifications to accommodate different ability levels.
4. Culminating Collaborative Art Symposium: Groups present findings through inclusive multimedia presentations, followed by structured discussions exploring connections between artists' approaches to globalisation. This format accommodates diverse communication styles while encouraging critical reflection on contemporary Ghanaian art's navigation of cultural identity in a global context.

KEY ASSESSMENT LEVEL 3: RESEARCH

Task Overview

You will research the work of El Anatsui and create a project that shows how his use of materials has changed over time and why his work is important today.

Part 1: Research (Understanding the Artist)

Research El Anatsui and answer the following questions:

1. What materials did he use in his early works?
2. What materials does he use in his later works?
3. What methods or techniques does he use to create his artworks?
4. Why did he begin using recycled materials?

Write short answers (1–2 paragraphs each).

Part 2: Visual Timeline (Creativity + Organisation)

Create a visual timeline that shows how his work has changed over time.

Your timeline should include:

- At least **3 different stages** of his career
- **Images or drawings** of his artworks
- Short notes explaining:
  - Materials used
  - Techniques used
  - Key changes over time

You may use:

- Chart paper (hand-drawn)
- Or digital tools (PowerPoint, Canva, etc.)

Part 3: Analysis (Thinking Deeply)

Answer the following questions:

1. How has El Anatsui influenced other Ghanaian artists?
2. How has his work changed the way artists use materials in Africa today?

Write 1–2 paragraphs for each.

Part 4: Evaluation (Real-Life Connection)

El Anatsui uses recycled materials in his art.

1. Why is this important for the environment?
2. What can students and communities learn from his work?

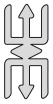
Write 1–2 paragraphs.

PLC SESSION 2

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).

3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



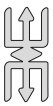
Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***research***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the research work (NTS 3k-3q).

10 minutes	Content Exploration

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)
   b. all teachers in the group work through a similar problem individually for 3–4 minutes
   c. the group then works through the problem together step by step
   d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?
- If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.

- Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 3

Learning Indicator: *Analyse and explain the impacts of contemporary Ghanaian art on the Artworld*

FOCAL AREAS: 1 BIENNALE AND TRIENNALE

2 IMPACT OF CONTEMPORARY GHANAIAN ART ON AFRICA AND THE REST OF THE WORLD

Introduction

Contemporary Ghanaian art is making a significant impact on the global art scene. Artists like El Anatsui, Ibrahim Mahama, and Lynette Yiadom-Boakye are showcasing their work at major international events like Biennales and Triennales. These opportunities allow them to share their perspectives on critical issues such as history, culture, environment, and identity. As a result, Ghanaian art has gained worldwide respect and is inspiring artists across Africa and beyond. By the end of this lesson, you'll understand how Ghanaian art has evolved from local roots to a vital voice in global art.

Biennale and Triennale

Biennales and Triennales

Biennales and triennales are big international art shows that happen every few years. A **Biennale** happens every two years (bi = two), and a **Triennale** happens every three years (tri = three). These art events are much larger than normal art exhibitions you may see in galleries. They usually take place in different parts of a city and involve many artists from different countries. The main aim of biennales and triennales is to show new and modern types of art. Artists use these events to share creative and experimental works that may not be accepted in regular museums or galleries. Most of the time, these exhibitions follow a theme. The themes usually talk about important world issues like **climate change**, **migration**, or **technology**.

Popular International Biennales

Venice Biennale (Italy)

- Started in 1895, the Venice Biennale is the first and most influential of its kind.
- Each country has its own building, called a pavilion, in the Giardini park, where they show the work of chosen artists.
- There is also a main exhibition curated by a famous international curator.

- Winning a Golden Lion award here can boost an artist's career.
- Ghana had its first pavilion in 2019, curated by Nana Oforiatta Ayim, featuring artists such as El Anatsui, Ibrahim Mahama, and Lynette Yiadom-Boakye.

Documenta (Germany)

- Held every five years in Kassel, this event is known for its serious approach to modern art.
- It was created in 1955 to help Germany reconnect with the global art world after World War II.
- Each edition is prepared over several years and shows the newest directions in contemporary art.
- In recent years, more African artists have been invited, especially after Okwui Enwezor became the first African artistic director in 2002.

Gwangju Biennale (South Korea)

- Founded in 1995 to remember a local pro-democracy uprising, this biennale shows that important art events can come from outside the usual Western centres.
- It regularly includes African artists and explores themes like resistance and political change, ideas that many students in Ghana may find familiar.

São Paulo Biennale (Brazil)

- Established in 1951, the São Paulo Biennale is the second oldest in the world and the first major international exhibition in the Southern Hemisphere.
- It has built connections between artists from countries with colonial histories, linking Africa and Latin America.

African Biennales

Dakar Biennale (Dak'Art) (Senegal)

- Launched in 1992, Dak'Art is the largest regular art event in Africa.
- Originally it included literature and visual arts, but now it mainly focuses on contemporary art from Africa and its diaspora.
- It was created by Africans for African art, allowing the continent to set its own standards.
- Dak'Art has helped many African artists gain recognition and is a meeting place for artists, curators, and collectors.

Lagos Photo (Nigeria)

- Begun in 2010, this is the first international photography festival in West Africa.
- It explores how Africans use photography to share their own stories, challenging the old way outsiders often portrayed Africa.
- The festival highlights Nigeria's strong history in photography, from classic studio portraits to modern works that discuss city life and social issues.

Bamako Encounters (Mali)

- Started in 1994, this biennale is focused on photography and video.
- It gives African photographers a vital platform to gain international recognition and shows that photography is a key part of contemporary African art.
- The event stresses how photography can help Africans control their image and counter old colonial views.

Lubumbashi Biennale (Democratic Republic of Congo)

- Established in 2008 in Lubumbashi (the DRC's second-largest city), this biennale centres on Central African art.
- It encourages dialogue between local and international artists, even in the face of political challenges and limited resources.
- The event also looks at themes such as the region's colonial past, the impact of mineral extraction, and urban life.

Importance of Biennale and Triennale

International Exposure

Biennales help artists show their work to people around the world, not just in their home country. For African artists, this can be a life-changing opportunity. It allows people from other countries to see and appreciate their work. This can lead to more chances to join other art shows, take part in artist programmes, and even travel for work.

Seeing Global Art Trends

For visitors, especially art students and young artists, biennales are a great chance to see what artists around the world are creating today. This is very helpful in places like Ghana, where people may not often see international modern art. Learners can learn new ideas and get inspired without travelling to many countries.

Recognition for African Artists

In the past, African artists were often ignored by big Western art institutions. Their work was sometimes seen as old-fashioned or only traditional. Biennales have helped change

this by showing the creativity and importance of African contemporary art. Now, more people understand that African artists are doing smart, modern, and meaningful work.

Changing Western Art Ideas

Biennales held in Africa and other parts of the world help show that art is not only made in Europe or North America. They give value to African stories, cultures, and ways of making art. This helps change the idea that only the West has important art. It shows that every region has something special to offer in the art world.

Economic Opportunities

Being part of a big biennale can help artists earn more money and grow their careers. Many people—like art buyers, gallery owners, and museum staff—attend these events to find new artists. For African artists, this means they can sell their work in bigger markets and get more support.

Building Connections

Biennales also help artists meet other artists, curators, and collectors from all over the world. These meetings can lead to teamwork, guidance, and future projects. For African artists, these friendships and partnerships can help them stay connected with the global art community.

Impact on African Art

Biennales have changed how African contemporary art is seen around the world. They show that African artists are not just making traditional crafts or "primitive" art, as was often thought in the past. Instead, African artists are now seen as important members of the global art community.

Most importantly, African biennales have allowed African curators, critics, and artists to create their own ways of talking about art, without depending on Western ideas.

Ghanaian and African Artists at Major Biennales and Triennales

Ghanaian Artists

El Anatsui

- Exhibited at the **Venice Biennale** multiple times, including Ghana's historic first pavilion in 2019
- Won the Golden Lion for Lifetime Achievement at the Venice Biennale in 2015

Ibrahim Mahama: Featured in Ghana's debut pavilion at **Venice Biennale** in 2019, **Documenta 14** in 2017 and many others

Lynette Yiadom-Boakye: Represented Ghana at the **Venice Biennale** in 2019.

Felicia Abban: Featured in Ghana's pavilion at the **Venice Biennale** in 2019.

Zohra Opoku: Exhibited at **Bamako Encounters** Photography Biennale.

Selasi Awusi Sosu. Featured in **Dak'Art Biennale** in Senegal, and the **Venice Biennale** in 2019.

Other Prominent African Artists at Biennales

William Kentridge (South Africa), Multiple appearances at **Venice Biennale** and **Documenta**

Zanele Muholi (South Africa) Featured at **Venice Biennale** and **São Paulo Biennale**

Yinka Shonibare CBE (Nigeria/UK) Exhibited at **Venice Biennale** and other international biennales

Wangechi Mutu (Kenya) Featured at **Venice Biennale**, **Whitney Biennial**,

Edson Chagas (Angola) Part of Angola's pavilion at **Venice Biennale** in 2013

Barthélémy Toguo (Cameroon) Exhibited at **Venice Biennale** and **Documenta**

Otobong Nkanga (Nigeria): Featured at **Venice Biennale**, **Sharjah Biennial**, and **São Paulo Biennale.**

African-Founded Biennales and Representation

Dak'Art Biennale (Senegal): featured Ghanaian artists including Serge Attukwei Clottey, Zohra Opoku, and Bernard Akoi-Jackson

Lagos Photo Festival (Nigeria): Features photography from across Africa, including work by Ghanaian photographers like Eric Gyamfi and Francis Kokoroko

Bamako Encounters (Mali): Has featured Ghanaian photographers including Philip Kwame Apagya and Nii Obodai.

Interactive Learning Task (Formative Assessment)

1. Warm-Up Discussion – 10 minutes Learners in pairs to discuss and share their thoughts with the class.
   - What they think makes Ghanaian art unique?

     Encourage them to think about themes, materials, or popular artists, like El Anatsui or Ibrahim Mahama etc.

Introduces the topic of Ghanaian art's global impact.

Learning Tasks

1. **Visual Analysis – 15 minutes**

   Display 3 images of contemporary Ghanaian art (e.g., El Anatsui's sculptures, Ibrahim Mahama's installations, or Lynette Yiadom-Boakye's paintings). Have students work in pairs to fill out a worksheet that includes questions such as:

   - What materials and techniques have been used in these artworks?
   - What themes or messages can you identify?
   - How do these artworks reflect Ghanaian culture or address global issues?

2. **Group Activity – 15 minutes**

   In suitable groups, learners are to discuss how contemporary Ghanaian artists have influenced the global art scene. Each group should choose one artist to focus on and answer these questions:

   - What is this artist known for?
   - How has their work been received internationally?
   - In what ways has their art challenged traditional views of African art?

3. **Creative Response – 10 minutes**

   Learners working in pairs to write a short paragraph on the following prompt:

   - "If you were an artist representing Ghana in an international art exhibition, what message would you want to share with the world through your art?" Encourage them to think about current global issues and Ghanaian culture.

Plenary – 10 minutes

Learners working individually should write down/present their answer to this question on a piece of paper/audio/video format:

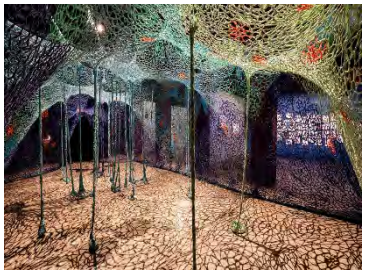
"Why do you think contemporary Ghanaian art is important in the global art world?"

PEDAGOGICAL EXEMPLARS

1. In smaller groups, research and document some of the famous Art exhibitions (Biennale and Triennale) in various parts of Africa and the rest of the world.

   Examples of Biennale and Triennale: Venice Biennale, Kassel's Documenta, Biennale de Bamako (the Bamako Encounters), Johannesburg Biennale, Stellenbosch Triennale, DAK'ART, Chale Wote Festival, etc.,






Note

Provide a video links/pictures on these famous Art exhibitions to support learners.

2. Managing Talk for Learning/Collaboration/Group Work/Project-based Learning: Create a chart to show the names of Ghanaian Contemporary artists, the Type of Biennales and Triennale they have exhibited and the Title of the works they exhibited.

3. Problem-based Learning/Group Work: Through group discussion that caters for gender and learners with mixed abilities, investigate the concepts that support the making of the artworks of selected Ghanaian contemporary artists and deduce their relevance to issues in the global society.

   Examples: Ibrahim Mahama, "Non-Orientable Nkansa II", Amoako Boafo: "Me Can Make We", Dorothy Amenuke " How far How Near", "Theresa Ankomah "The tie"

KEY ASSESSMENT

Level 3: Critiquing and Evaluating

1. Evaluate the role of blaxTARLINES Kumasi in shaping contemporary Ghanaian art through education, exhibitions, and careers.

2. Analyse its impact and limitations and suggest strategies to broaden its reach and influence.

PLC SESSION 3

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.

2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand

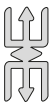
b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).

3. Use your subject specific app to plan your lesson. Ask the app to

a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.

b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)

c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app

The key assessment for the week is ***critiquing and evaluating***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the assessment (NTS 3k-3q).

10 minutes	Content Exploration

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).

Note

- This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?
- If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.
- Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 4

Learning Indicator: *Categorise and explain contemporary African art*

FOCAL AREAS:

1 CATEGORIES OF CONTEMPORARY AFRICAN ART

2 CONTEMPORARY AFRICAN ARTISTS AND THEIR ARTWORKS

Introduction

Contemporary African art, created by modern African artists, has gained worldwide popularity. Unlike traditional art, which focused on customs and rituals, contemporary art addresses issues like politics, culture, identity, and urban life. This lesson will explore categories of contemporary African art, including painting, sculpture, photography, installation, video art, and performance art, highlighting unique expressions. We'll also look at notable artists like El Anatsui, Mary Sibande, and Ibrahim Mahama, examining their works and the messages they convey. By the end, you'll be able to identify types of contemporary African art, understand their significance, and name some influential artists and their works.

Categories of Contemporary African Art

Basic Techniques in Contemporary African art

Contemporary African art includes many different types of art that artists use to express their ideas and stories about today's world. These categories are based on the materials, styles, and methods that artists choose to create their works.

Categories of Contemporary African Art

Traditional–Contemporary Fusion

Many African artists combine traditional elements with modern approaches. They use traditional symbols, patterns, and techniques but apply them to contemporary subjects. Examples include Ghanaian artist El Anatsui, who transforms traditional kente cloth concepts into massive metal sculptures using bottle caps and copper wire. This approach celebrates cultural heritage while creating something new.

Urban Art and Street Culture

This category explores city life, popular culture, and everyday experiences in modern African cities. It includes graffiti, street art, and works inspired by urban fashion, music, and digital culture. Ghanaian artist Serge Attukwei Clottey creates art from yellow

plastic containers (gallons) addressing Accra's water access issues. These artists document rapidly changing African cities and their unique energy.



Figure 4.1: *Chale Wote street art festival. 2019: Top pictures from Accra event.*
Source: *https://www.bbc.com/pidgin/tori-49460279*

Figure 4.1 shows a picture of a street mural featuring the large, side-profile face of a woman with dark purple skin, adorned with bright, patterned headwraps and large golden hoop earrings. The background is filled with colours such as yellows, blues, pinks, and oranges, with abstract and symbolic designs, including an eye motif and swirling patterns. In front of the mural, three people are posing: one person in a white hoodie is taking a photo with a phone, while two others stand and sit near the wall.

Political and Social Commentary

Many contemporary African artists create work that comments on political issues, corruption, colonialism, and social problems. Their art often challenges power structures and advocates for change. Kenyan-British artist Michael Armitage paints beautiful but disturbing scenes addressing political violence. This art raises awareness and encourages viewers to think critically about society.



Figure 4.2: *Michael Armitage. The Accomplice. 2019, oil on Lubugo bark cloth, 220 × 300 cm. Courtesy: The artist and White Cube, London/Hong Kong; photograph: Theo Christelis, White Cube, London/Hong Kong*

Source: *https://www.frieze.com/article/michael-armitage-renders-political-violence-kenya-fauvist-colour*

Figure 4.2. shows a picture of three dark-skinned figures captured in dynamic motion, seemingly leaping or protesting, and outlined with a bright pinkish-orange glow that makes them stand out. Below them, one figure jumps over a roaring fire of thick yellow and orange flames that erupts from a dark, round object on the ground. On the far left, a soldier figure, identifiable by a deep blue helmet with swirling patterns, stands with their back to the viewer. At the top right is a crowd, some sitting and others standing. Near the bottom right, the scene includes a few loosely painted animals like baboons and a polished sphere on a stand that reflects a swirling blue-and-white image.

Identity and Heritage Exploration

This category explores questions about what it means to be African in today's world. Artists examine personal and cultural identity, gender, sexuality, religion, and the effects of migration. British-Ghanaian filmmaker John Akomfrah creates powerful video installations about history, memory, and the African diaspora experience. These works help viewers understand complex identities in a globalising world.

Environmental Art

Responding to urgent environmental challenges, these artists address issues like climate change, pollution, mining, and resource extraction. Many use recycled materials or create work in natural settings. Nigerian artist Bright Ugochukwu Eke creates installations about water pollution using plastic bottles. This art connects environmental concerns with human experiences.



Figure 4.3: *Bright Ugochukwu Eke. Ripples and Storm. 2011.*

Source: *https://axis.gallery/wp-content/uploads/2018/06/3a.Bright-Ugochukwu-Eke-Ripples-and-Storm-i-2011..jpg*

Figure 4.3 shows an image that captures a massive, room-sized art installation constructed entirely from hundreds, if not thousands, of used plastic bottles. The bottles are carefully arranged to form three large, overlapping circular patterns, creating the impression of giant, swirling whirlpools across a long, undulating wall. This monumental curtain of bottles is not flat but has a wavy, organic form, suspended from the ceiling and reaching

nearly to the dark, polished floor below. A variety of bottle types are used including clear, green, and blue plastic and many still bear their colourful paper labels and caps, adding flecks of red, white, and yellow to the overall structure. The individual bottles are laid horizontally and linked together, radiating out from the centre of each circle with their bases pointing inward.

Photography and New Media

African photographers and digital artists document contemporary life and create imaginative new visions using technology. Ghanaian photographers James Barnor and Felicia Abban documented Ghana's independence era and continues to influence younger photographers. These artists control how Africa is represented visually.



Figure 4.4: *James Barnor. Osofo Dadzie. 1975–1978. Photograph by James Barnor. Two societies in transition.*

Source: *https://artuk.org/discover/stories/from-ghana-to-london-how-photographer-james-barnor-captured-two-societies-in-transition*

Figure 4.4 shows a colour photograph of an AGIP gas station. At the centre of the photograph, a man dressed in a tan shirt and shorts interacts with a stylish woman whose prominent afro is complemented by her cream-coloured blouse and sea-green trousers. To their left is a cream-coloured pickup truck showing the inscription "NIFA NIFA" on its roof. On their right is a white sedan car. The scene is set under the flat, modern canopy of the gas station, topped by a large sign with the stylised letters "AGIP" against a pale, hazy sky with lush trees in the distance.

Conceptual and Installation Art

This approach emphasises ideas over traditional art objects. Installation artists create immersive environments that viewers can enter and experience. Ibrahim Mahama from Ghana covers buildings with jute sacks that carried Ghana's cocoa exports, commenting on global trade. These works often require audience participation to complete their meaning.



Figure 4.5: *Ibrahim Mahama. Installation view: Purple Hibiscus. Image: © Dion Barrett / Barbican Centre*

Source: *https://www.thisiscolossal.com/2024/04/ibrahim-mahama-purple-hibiscus/*

Figure 4.5 shows a large, modern concrete building draped with a bright magenta or purple fabric covering its entire facade. The fabric is decorated with playful, oversized illustrations of cartoon animals, books, and fanciful objects. In front of the building, there is a spacious plaza with circular water features, small fountains, and scattered seating areas. Several people are walking or sitting in the plaza, and tall buildings can be seen in the background under a blue sky with some clouds.

Performance Art

Performance artists use their bodies, actions, and live events as their medium. These performances might involve dance, ritual, storytelling, or unexpected actions in public spaces. Nigerian-born performance artist Jelili Atiku creates dramatic public performances addressing human rights. These works exist in the moment but may be documented through photography and video.



Figure 4.6: *Jelili Atiku. Yoruba heritage – Black history month.*

Source: *https://www.artshelp.com/jelili-atiku-yoruba-heritage-black-history-month/*

Figure 4.6 shows a picture of a busy city scene, a person completely enveloped in an elaborate, sculptural costume strides across a crosswalk, interrupting the flow of everyday

life. The figure is clad from head to toe in patterned textiles of earthy reds and browns, featuring a full-face mask and a long, heavy cape that drags along the pavement. The costume is adorned with multiple chains made of small, interconnected, human-like figures, crafted from a light-coloured, soft-looking material. The performer carries a long staff similarly decorated with these linked figures, holding it horizontally as he crosses the street.

Women's Perspectives

Female African artists challenge traditional gender roles and explore women's experiences. Their work addresses issues like family expectations, beauty standards, and gender inequality. Ghanaian artist Zohra Opoku explores female identity through textile works and photography. These artists provide important perspectives often missing from male-dominated art histories.

Afrofuturism

This exciting category imagines alternative futures for Africa and people of African descent. It combines science fiction, technology, and African spirituality to envision new possibilities. Kenyan filmmaker Wanuri Kahiu creates films showing optimistic future visions of Africa. These works help African youth imagine positive futures beyond current limitations.

Common techniques

1. **Installation Art,** which involves creating large-scale works that are set up in galleries or outdoor spaces. These artworks often involve the viewer and can include objects, sounds, and even video.
2. **Photography,** the use of cameras by African artists to capture images of everyday life, culture, or political issues, usually focusing on showing how African people live, their struggles, and their hopes for the future.
3. **Sculpture:** creating 3D works of art from materials like wood, metal, clay, and stone. Many contemporary African sculptors use unusual materials, such as scrap metal or recycled items, to make strong statements about society and the environment.
4. **Painting:** includes various styles, from traditional techniques to modern abstract art. Artists use colours, shapes, and patterns to tell stories about African culture, society, and politics.

Popular Materials

Recycled and Found Objects

- Bottle caps, Plastic containers, Electronic waste, Fabric scraps, Textile waste become powerful collages and sculptures

Traditional Materials Used in New Ways

- Wood, Clay, Beads, Textiles and other fabrics

Digital and New Media

- Photography, Video, Digital manipulation, Sound

Industrial Materials

- Jute sacks, Concrete and metal, Corrugated iron, Wire

Popular Themes

Identity and Heritage

- Personal and national identity in a globalising world
- Balancing traditional cultural values with contemporary life
- Exploration of language and cultural symbols
- Diaspora experiences and connections to the homeland

Social and Political Commentary

- Corruption and governance issues
- Human rights and social justice
- Colonial history and its ongoing effects
- Economic inequality and class structures

Urbanisation and Modern Life

- Rapid city growth and urban challenges
- Transportation and infrastructure
- Market life and economic activities
- Technology's impact on everyday experiences

Gender and Sexuality

- Women's changing roles in society
- Challenging traditional gender expectations

Environmental Concerns

- Climate change impacts specific to Africa
- Resource extraction (mining, logging, oil)
- Water access and pollution
- Conservation of natural environments

Migration and Borders

- Internal migration from rural to urban areas
- International migration and refugee experiences
- Political borders created during colonialism
- Cultural exchange across boundaries

Spirituality and Religion

- Traditional spiritual practices in contemporary life
- Influence of Christianity and Islam
- Syncretism between different belief systems
- Ritual and ceremony in modern contexts

Future Visions

- Afrofuturism and imagined possibilities
- Technology and innovation
- Youth culture and emerging identities
- Pan-African connections and solidarity

Mini Project for weeks 3 and 4: Contemporary African Art and Institutional Impact

Duration: 3 hours

Brief: Create a 2D artwork (manually or digitally) that reflects an understanding of how contemporary African artists have influenced art institutions across Africa.

Materials

For Manual Creation

- Drawing/painting supplies (paper, canvas, pencils, paint)
- Collage materials (magazines, fabric scraps, photographs)
- Mixed media supplies (glue, scissors, wire, thread)

For Digital Creation

- Computers/tablets with digital art software (Photoshop, GIMP, Procreate, etc.)
- Digital drawing tools (stylus, graphics tablet if available)
- Digital image resources and reference materials

For Research

- Digital devices for online research (if available)

- Pre-printed information on African art institutions and artists
- Visual examples of contemporary African artworks

Project Structure

Introduction (20 minutes)

- Visual examples of how contemporary African artists have transformed exhibition practices, looking at an overview of artists like El Anatsui, Ibrahim Mahama, Yinka Shonibare, and their institutional impact

Research and Analysis (40 minutes)

1. Form inclusive groups, ensuring mixed abilities and backgrounds
2. Each groups create a visual mind map (either on paper or using digital tools) showing:
    - Key artists and their institutional connections
    - Exhibition innovations
    - How socio-cultural identity is expressed through exhibition contexts

Concept Development (30 minutes)

1. Groups, develop a concept for a 2D artwork that:
    - Responds to an exhibition strategy used by contemporary African artists
    - Addresses how art institutions can better represent cultural identity
    - Incorporates visual elements inspired by one of the featured artists
2. Create a quick sketch (manual or digital) and brief concept note (written or verbal)
3. Decide whether to execute the artwork manually or digitally based on concept requirements

Artwork Creation (90 minutes)

Create a 2D artwork based on your concept using either:

- Manual materials and techniques
- Digital creation tools and software
- A combination of both (e.g., creating elements manually, then scanning and digitally composing)

Reflection (20 minutes)

- Gallery walk to view completed works (digital works can be displayed on screens or projected)
- Brief sharing of concepts (accommodating different communication preferences)
- Group discussion on how artworks reflect institutional impact

Suggested 2D Artworks

1. **Exhibition Space Reimagined**
    - Manual option: Mixed media collage depicting a reimagined exhibition space
    - Digital option: Digital collage combining photography and illustration of innovative exhibition spaces
2. **Artist's Identity Map**
    - Manual option: Mixed media map using symbols, photos, and drawings
    - Digital option: Digital illustration or interactive map showing artist connections

    To explore how personal/cultural identity interfaces with institutional frameworks
3. **Material Dialogue**
    - Manual option: Textural piece using unconventional materials inspired by El Anatsui. Digital option: Digital composition exploring texture through photographic elements and digital manipulation

    To address how material choices challenge institutional categorisations
4. **Institutional Critique**
    - Manual option: Text-based artwork or symbolic painting addressing institutional power. Digital option: Digital poster or graphic design piece incorporating institutional critique

    To explore themes of access, inclusion, or cultural repatriation
5. **Cultural Memory Archive**
    - Manual option: Mixed media piece incorporating traditional patterns or symbols. Digital option: Digital collage blending archival images with contemporary elements
    - To explore how institutions preserve and present cultural memory

Differentiation Strategies

- Provide both digital and manual options to accommodate different strengths and preferences
- Allow students to work in groups if beneficial for skill-sharing (digital/manual expertise)
- Ensure digital tools have accessibility features enabled
- Provide visual reference sheets for students with hearing impairments
- Offer translation support for multilingual learners

Assessment

- Understanding of contemporary African artists' institutional impact
- Thoughtful incorporation of exhibition strategies or institutional themes
- Effective use of chosen medium (manual or digital)
- Conceptual clarity and personal expression
- Participation in inclusive group discussions

Learning Tasks

Visual Analysis (5 min)

Let learners in smaller groups examine one contemporary African artwork and List:

- Three materials used
- Two techniques employed
- One possible theme or message*(Use sketchbooks or response sheets)*

Comparison Chart (10 min)

In the same group they should complete a chart comparing the works of 3 artists e.g., (Ibrahim Mahama, Amoako Boafo, and Serge Attukwei Clottey, Dorothy Amenuke etc)

- Materials/Techniques
- One key theme in each artist's work
- How each artist connects to Ghanaian identity

Gallery Walk (15 min)

Learners to

- View five artwork reproductions placed around the room, each labelled with a category (e.g., Installation, Performance, Recycled Art, Mixed Media, Digital).
- Leave one comment or question on a sticky note at each station.
- Write down two new insights about the diversity of contemporary African art.

Think-Pair-Share (8 min)

Question: *How do categories like Recycled Art or Installation Art help address social or political issues in Africa today?*

- **Think (2 min):** Reflect and jot down ideas individually.
- **Pair (3 min):** Share with a partner and compare thoughts.
- **Share (3 min):** Volunteers share key points with the class.

Concept Mapping (15 min)

Learners in smaller groups to create a concept map linking:

- Traditional Ghanaian art forms
- Modern categories of art (e.g., Digital, Conceptual, Performance)
- Global influences (e.g., diaspora, Western art schools)
- Social issues addressed (e.g., identity, environment, migration)

(Use chart paper and coloured markers. Present briefly if time allows.)

Visual and hands-on Response (20 min)

Learners to:

- View a selected piece from a contemporary Ghanaian artist.
- On an A4 sheet, create a visual response using collage, drawing, or mixed media that matches the category and theme of the original work.
- Add a 2–3 sentence artist statement explaining your choices.

PEDAGOGICAL EXEMPLARS

- Initiating Talk for Learning/Collaborative Learning: Working in smaller groups, research and document contemporary African Art by watching videos and photos and reading magazines.
- Managing Talk for Learning: In convenient groups, which consider the capabilities of learners for equity of access, examine contemporary African Art in terms of materials, methods of fabrication, timelines, and socio-cultural relevance.
- Problem Base Learning/Experiential Learning: Using images and text, categorise contemporary African Art in terms of materials, methods of fabrication, context and socio-cultural relevance.

KEY ASSESSMENT

Level 4: Group Project

Multiple-Choice Questions

1. A curator planning an exhibition on contemporary African art should prioritise:

A. pure traditional techniques from historical archives.

B. innovative fusion of tradition with contemporary vision.

C. Western-aligned aesthetics for international markets.

D. apolitical subjects avoiding controversial discourse.

2. When selecting African art for educational purposes, which criterion offers the greatest pedagogical value?

A. Works by internationally celebrated museum artists

B. Pieces referencing established European masterworks

C. High-value acquisitions as institutional investments

D. Works connecting heritage with contemporary issues

3. The most effective curatorial approach for an exhibition on West African photography includes:

A. highlighting photographers with exceptional technique.

B. examining portraits documenting societal transformations.

C. organising photographs without contextual information.

D. featuring photographers validated by global galleries.

4. Afrofuturist artworks make these contributions to contemporary African visual culture:

A. creating appealing narratives with minimal complexity.

B. reimagining identities beyond colonial constraints.

C. appealing to youth through science fiction elements.

D. demonstrating technique while avoiding social issues.

5. A comparative exhibition of regional African art traditions should emphasise:

A. presenting artworks as unified cultural expressions.

B. isolating traditions into separate cultural displays.

C. demonstrating links between local and global contexts.

D. prioritising artists validated by Western institutions.

6. A community-based art project addressing historical narratives would benefit from:

A. curated representations minimising historical conflicts.

B. diverse community voices articulating shared histories.

C. chronological timelines with minimal interpretation.

D. reproducing canonical works from museum collections.

7. An artist working with recycled materials could best engage students through:
   - **A.** structured demonstrations of professional techniques.
   - **B.** collaborative creation with environmental discussions.
   - **C.** creating aesthetic objects without conceptual depth.
   - **D.** teaching techniques using conventional art materials.

8. Effective artistic responses to environmental issues in a community include:
   - **A.** community-driven creative documentation projects.
   - **B.** professional environmental sculptures by artists.
   - **C.** Standardised educational materials for audiences.
   - **D.** traditional landscape paintings of idealised scenes.

9. Analysis of performances combining traditional elements with modern technology requires:
   - **A.** evaluation using Western critical frameworks.
   - **B.** examination of heritage and contemporary dialogues.
   - **C.** assessment focused on audience entertainment.
   - **D.** authentication of traditional elements in isolation.

10. A digital artist creating work for a rural community should emphasise:
    - **A.** instructional content about technological processes.
    - **B.** sophisticated technical aspects of digital creation.
    - **C.** projects requiring advanced viewing devices.
    - **D.** technology's impact on community relationships.

Hint

Assign Group Project to learners and give them reasonable time to complete it. Use the SS App to generate the project as well as the rubric. Learners' projects should be marked immediately and scores entered into the STP.

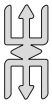
PLC SESSION 4

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous session, focusing on how learning was applied.

2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand.
   b. identify three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners (NTS 3a, 3g and 3m).

3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q).
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



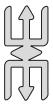
Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Use your app to plan and administer the mode of assessment for the Student Assessment Portal (SAP)
   a. The key assessment for the week is ***group project***. Chat with your app to plan this assessment by reviewing or developing the assessment items/tasks and marking schemes/rubrics for the project (NTS 3k-3q).

10 minutes	Content Exploration

5. As a subject group, select one problem or topic/idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)
   b. all teachers in the group work through the problem individually for 3–4 minutes
   c. the group then works through it together the problem, step by step
   d. highlight the most common errors made at each step (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- This part is not 'How do I teach this?' but how do I teach it for learners to understand?
- If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.
- Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 5

Learning Indicator: *Discuss the contributions of African contemporary art and artists to art institutions in Africa*

FOCAL AREA: CONTRIBUTIONS OF CONTEMPORARY AFRICAN ART TO ART INSTITUTIONS IN AFRICA

Introduction

African artists produce compelling work that reflects identities, challenges, and aspirations. To show their creations, and engage with audiences, artists rely on art institutions. This has led to the emergence of museums, galleries, biennales, art schools, and cultural centres across the continent, which support artists' development and allow the public to engage with art. This lesson examines how contemporary African artists have influenced and transformed these institutions, often creating their own spaces when traditional ones were lacking. We will also explore how these new venues are reshaping perceptions of African art both locally and globally. By understanding the relationship between artists and institutions, we can see how art contributes to education, cultural pride, and Ghana's position in the international art scene.

1. ART INSTITUTIONS IN AFRICA

Art Institutions in Ghana

blaxTARLINES KUMASI

blaxTARLINES KUMASI, based at KNUST in Kumasi and founded by Painting and Sculpture faculty and students, supports emerging artists and research-driven art that explores Ghanaian and African issues through contemporary visual forms. Its landmark 2017 show, *Orderly Disorderly*, turned spaces across Ghana into venues for over 100 artists using video, sculpture, performance, and spatial interventions. Follow-up exhibitions like *The Gown Must Go to Town* and *Cornfields in Accra* cemented its role as a leading African platform for critical, experimental art and socially engaged practice.

National Museum of Ghana

The National Museum of Ghana, located in central Accra and opened in 1957, showcases the country's rich culture. As the country's most important museum, it features treasures such as beautifully crafted drums, historical gold weights, ceremonial items, intricate wooden carvings, and contemporary artworks by Ghanaian artists. The museum educates school children and tourists about Ghana's history, preserves cultural artefacts for future generations, and highlights the evolution of Ghanaian art from traditional crafts to modern creations.

Nubuke Foundation

Location: Established in East Legon, Accra, this initiative began in 2006 to fill gaps in Ghana's cultural framework. It hosts rotating art exhibitions, literary events, structured art education for children, and craft training for women in Wa to promote economic empowerment. The space showcases renowned artists like Ibrahim Mahama and Kwame Akoto-Bamfo while supporting emerging talents.

Other Significant African Art Institutions

Zeitz MOCAA (South Africa)

Housed in a repurposed grain silo at Cape Town's Victoria & Alfred Waterfront, this architectural marvel is Africa's largest contemporary art museum, featuring 6,000 square meters of exhibition space over nine floors. Its extensive collection showcases 21st-century works from pan-African artists, including El Anatsui's innovative bottle-cap tapestries. The museum enhances the visibility of African artists and elevates African narratives in the global contemporary art scene.

Centre for Contemporary Art (Nigeria)

Founded by curator Bisi Silva, the organisation connects Lagos to global art networks through curated exhibitions, the Asiko International Art School across African countries, research residencies, and critical art discourse. It promotes experimental photography, conceptual performance art, multimedia installations, and critical writing on African art.

National Gallery of Zimbabwe

Founded in Harare in 1957, with branches in Bulawayo and Mutare, this institution creates a national network of art spaces. It features a diverse collection that highlights Zimbabwe's artistic evolution, including Shona stone sculpture and contemporary works. The annual Zimbabwe Heritage Exhibition showcases emerging talent and is supported by workshops and talks. The institution is vital for preserving artistic traditions, fostering innovation, and helping artists gain regional and international recognition amidst political and economic challenges.

African Artists' Foundation (Nigeria)

This non-profit promotes contemporary African art through key programmes. Its flagship initiatives include the LagosPhoto Festival, which positions Lagos as a photography hub; the National Art Competition for emerging talent; and the Female Artists' Platform promoting gender equity. It builds networks linking West African artists to global curators and institutions, offering exhibition and publication opportunities, training workshops, and support for regional visual arts infrastructure.

National Museum of Mali

A key cultural institution in Francophone West Africa, this centre preserves Mali's rich artistic heritage. Its collection features Bogolan textiles, traditional instruments, wooden masks and sculptures, and archaeological artefacts from ancient empires like Djenne and Timbuktu. It documents and presents the cultural history of groups such as the Dogon, Tuareg, and Bambara, promoting traditional knowledge and techniques. Despite political instability, it safeguards heritage at risk from conflict or trafficking, while showcasing Mali's global cultural contributions.

Impact of Contemporary African Art on African Institutions

In recent years, art spaces across Africa have changed a lot. They used to just show old cultural objects, but now they've become lively places full of new ideas. Today's African artists use both traditional materials and surprising things like recycled waste to create their work. This has forced museums and galleries to change how they operate. some of the significant impact of Contemporary African Art on African Institutions include:

a. *Institutional Evolution*: Museums in Africa used to focus mainly on old masks and crafts. Now they show all kinds of art. At the National Museum of Ghana, you can see traditional gold weights in one room and Ibrahim Mahama's huge jute sack installations in another. The Artists Alliance Gallery in Accra started by showing paintings but now includes video art, sound installations, and digital works.

b. *Educational Approaches:* Art schools have changed how they teach. At blaxTARLINES in Kumasi, students don't just learn to paint or sculpt. They go into communities, collect local materials like calabashes or recycled metal, and create art that tells stories about Ghana today. The Savannah Centre for Contemporary Art in Tamale runs workshops where young artists learn to use everything from palm fibers to electronic waste.

c. *Economic Sustainability:* African art spaces have found clever ways to support themselves. The Nubuke Foundation in Accra doesn't just rely on donations. It sells artwork, rents its beautiful garden for events, and runs a café. When Kenyan artist Michael Soi shows his colourful paintings at Circle Art Gallery in Nairobi, the gallery splits the sales with him and uses its share to fund programs for younger artists who haven't sold anything yet.

d. *Community Engagement:* Art institutions are becoming neighbourhood gathering places. The GoDown Arts Centre in Nairobi hosts "Nai Ni Who" (Who is Nairobi) festivals where contemporary artists and everyday people create art together using materials found in the city. In Cape Coast, Ghana, the Nubuke Foundation trains women to combine traditional weaving techniques with new designs, creating items people want to buy while preserving cultural knowledge.

e. *Digital Documentation:* African institutions are using technology to preserve and share today's art for the future. Platforms like Contemporary And (C&) archive artists such as El Anatsui, while the National Museum of Mali offers digital demos of traditional textile-making. These tools safeguard techniques and make African art globally accessible. many institutions are now vibrant hubs for innovation, community, and African-led dialogue. They blend tradition with new ideas and develop sustainable models less reliant on foreign funding. As global interest in African art grows, these institutions ensure its stories stay authentically African, using art to protect heritage and drive positive change.

Learning Tasks

1. **Visual Analysis (5 minutes)**

   Learners are shown two selected artworks from different African contemporary artists (e.g. Amoako Boafo, Zanele Muholi, or Dorothy Amenuke, Peju Alatise etc). for them to answer simple questions like:

   - What do you see in this artwork?
   - What message do you think it carries?
   - How does it connect to African life or culture?

2. **Comparison Chart (10 minutes)**

   In pairs, learners fill out a comparison chart that lists:

   - Names of art institutions (e.g., Gallery 1957, Nubuke Foundation, Omenka Gallery)
   - Names of contemporary African artists associated with each
   - Type of artwork or exhibition
   - The message or cultural idea in the art

   They compare at least two institutions and their contributions to African identity.

3. **Gallery Walk (15 minutes)**

   Post printed or drawn posters of African art institutions and artists around the classroom.

   Learners walk around, view the displays, and:

   - Write one comment or question per poster
   - Vote for the institution that most powerfully promotes African culture

4. **Think–Pair–Share (8 minutes)**

   Learners reflect individually on how African contemporary artists share African values through art. Pair: Discuss their ideas with a partner.

   Share: Pairs share their best idea with the class.

5. **Concept Mapping (15 minutes)**

   In groups, learners create a concept map on a large sheet showing:

   - Contemporary African Artists
   - African Art Institutions
   - Types of Artworks
   - Cultural Messages
   - Social or Identity Themes

They draw arrows to show how everything is linked, then hang the map on the board or wall.

6. **Visual & Hands-on Response (20 minutes)**

   Each group creates a mini-exhibition setup using:

   - Drawings or magazine cut-outs
   - Artist quotes
   - Written labels (about the artist, artwork, and cultural meaning)
   - A title that reflects an African theme (e.g., "Our Roots, Our Voice")

   They present this exhibition to the class, explaining:

   - Why they chose the artist(s)
   - What cultural message the exhibition brings out.

PEDAGOGICAL EXEMPLARS

- Collaboration/Group work: In gender sensitive groups, research and document notable art institutions in Africa etc. Examples of art institutions in Africa:

  Nubuke Foundation, Gallery 1957, BlaxTARLINES, Omenka Gallery, Museum of African Contemporary Art, Addis Fine Art, Stevenson Gallery, Galerie Cecile Fakhoury Managing Talk for Learning/Collaboration/Group work

- In a class discussion, examine the main activities of selected art institutions in terms of context and the promotion of socio-cultural identity. Problem-base/Collaborative Learning
- In mixed groups, initiate a discussion to investigate the contributions of contemporary African Art and artists to selected art institutions in Africa.

KEY ASSESSMENT

Level 3: Essay

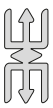
Essay Questions

1. Examine how one artist-founded institution in Africa has created new models for exhibiting, preserving, and engaging communities with contemporary art. (30 marks)
2. Compare a national museum and an artist-run space in Africa, evaluating their roles in contemporary art. (30 marks)

PLC SESSION 5

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



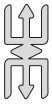
Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***essay***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the essay (NTS 3k-3q).

10 minutes **Content Exploration**

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)
   b. all teachers in the group work through a similar problem individually for 3–4 minutes
   c. the group then works through the problem together step by step
   d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?
- If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.
- Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.

30 minutes **Enactment**

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).
   a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.
   b. After the enactment, ask for structured feedback from the group
      i. was the concept explained in a way that a learner with no prior knowledge could follow?
      ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 6

Learning Indicator: *Analyse and explain the impacts of contemporary African art in the Artworld*

FOCAL AREA: IMPACT OF CONTEMPORARY AFRICAN ART ON THE ARTWORLD

Introduction

Contemporary African Art refers to recent works by African artists who use diverse materials and styles to explore culture, identity, history, and social issues. Many combine traditional elements—like symbols, textiles, and stories—with modern techniques, creating a distinctive blend that has gained global recognition. Artists such as El Anatsui, Yinka Shonibare, and Wangechi Mutu have earned international acclaim, reshaping perceptions of African art as dynamic and relevant today. Contemporary African art continues to influence the world in various ways, including:

Global Exhibitions

Contemporary African art is now displayed in famous galleries and exhibitions around the world. This gives African artists the chance to show their ideas and culture to people from many countries.

Art Education

Art schools and universities across the world now study the works of contemporary African artists. These artists are included in textbooks and lessons as important figures in modern art. This means that African ideas and creativity are now respected in the global classroom, and students around the world learn from African voices.

Cultural Exchange

African artists are using their work to share their beliefs, culture, and stories with the world. Through this, people from other countries learn to appreciate African life and traditions. This kind of cultural sharing makes African art a powerful tool for communication and understanding.

Inspiration

Artists from different parts of the world are now inspired by African art. They admire the colours, textures, stories, and techniques. This makes African art a source of inspiration in global fashion, music, and design.

Use of Technology and Social Media

Contemporary African artists are also using technology and social media to share their work with a global audience. Platforms like Instagram, YouTube, and online galleries allow artists to promote their work without needing a physical gallery.

Public Art and Architecture

Contemporary African art is also influencing the design of buildings, public spaces, and monuments. Artists work with architects to create structures that reflect African identity.

Promoting Social Change

Many African artists use their work to talk about important social issues like gender equality, politics, the environment, and human rights. Their artworks speak to both local and international audiences.

Mini Project for Weeks 5–7: Modern Art's Influence on Contemporary African Art

Duration: 3 hours *(Should be spread across the 3 weeks)*

Outcome: Learners will be able to Create a 2D artwork that demonstrates understanding of how modern art influences contemporary African art while addressing a relevant community issue.

Diverse Material Options

Unconventional Drawing Materials

- Charcoal made from local wood
- Coffee, tea, or plant-based stains
- Handmade brushes from local plant materials
- Soil, clay, or sand mixed with binders
- Recycled paper and cardboard

Textile-Based Options

- Fabric scraps and textile remnants
- Raffia, jute, or local plant fibres
- Thread, yarn, and string
- Beads, buttons, and found objects
- Techniques like simple stitching or weaving

Repurposed Materials

- Food packaging and containers
- Bottle caps and plastic waste
- Newspaper and magazine clippings
- Cardboard from consumer products
- Discarded electronic components

Digital Alternatives

- Smartphone photography with editing apps
- Stop-motion using physical materials
- Digital drawing on available devices
- Photo-collage techniques
- Social media formats and layouts

Diverse Format Options

Alternative 2D Formats

- **Banner Format** - Long horizontal or vertical composition
- **Circular Composition** - Non-rectangular approach to composition
- **Grid or Pattern-Based** - Systematic arrangement of elements
- **Folding/Accordion Book** - Multi-panel sequential format
- **Wearable Art** - Designed to be worn or carried
- **Window Installation** - Designed to be viewed with light passing through
- **Floor Installation** - Designed to be viewed from above
- **Mapping Format** - Using cartographic approaches to organize information

Project Theme: "Community Dialogues: African Art in Conversation"

Create a 2D artwork in an innovative format that:

Shows influence between modern art movements and African artistic traditions and addresses an important issue in your community by using materials that connect to your concept and community context

Project Structure

Discussion & Planning (30 minutes)

1. In small groups with visual support materials:
    - Identify connections between modern art movements and African artistic traditions and discuss community issues that could be addressed through art

Creation

Create your artwork using your chosen materials and format.

Suggested Approaches:

1. **Environmental Commentary**
    - **Materials:** Collected plastic waste, natural materials, recycled paper
    - **Format:** Circular mandala-like composition
    - **Concept:** Contrast between natural and human-made materials
    - **Influences:** Combine Dadaist found object approach with African circular design principles
2. **Community Identity Textile**
    - **Materials:** Fabric scraps, thread, paper, paint
    - **Format:** Banner or flag format
    - **Concept:** Represent diverse community voices and identities
    - **Influences:** Combine Expressionist colour theory with African textile traditions
3. **Social Justice Grid**
    - **Materials:** Photographs, text, paint, found objects
    - **Format:** Grid or pattern-based arrangement
    - **Concept:** Systematic examination of inequalities or challenges
    - **Influences:** Combine Constructivist grid systems with African pattern traditions
4. **Cultural Preservation Accordion Book**
    - **Materials:** Paper, cardboard, natural dyes, photographs
    - **Format:** Folding accordion book
    - **Concept:** Document cultural practices at risk of being lost
    - **Influences:** Combine Surrealist narrative approaches with African storytelling traditions
5. **Economic Commentary Map**
    - **Materials:** Local materials representing resources or products

- **Format:** Map-based composition
- **Concept:** Visualize economic relationships or challenges
- **Influences:** Combine Cubist fragmentation with African symbolic mapping

Reflection

- Display artworks in a manner appropriate to their format
- Brief sharing of material and format choices and how they connect to your concept
- Group discussion on how artistic traditions can address contemporary issues

Differentiation Strategies

- Provide diverse material options to accommodate different abilities
- Offer format templates for those needing structural guidance
- Allow for collaborative work, where beneficial
- Ensure materials can be manipulated by students with different physical abilities
- Provide visual examples with minimal text

Assessment Criteria

1. **Material Innovation** - Thoughtful selection and use of materials that connect to concept
2. **Format Effectiveness** - Creative use of format that enhances the message
3. **Artistic Dialogue** - Clear incorporation of elements from both modern and African art traditions
4. **Community Relevance** - Meaningful connection to a local community issue
5. **Visual Communication** - Effective expression of ideas through visual means

Learning Tasks

Materials Needed (these are just suggested. Teachers can add more materials as needed and available)

- Printed/projected images of contemporary African artworks
- Large paper for comparison charts and concept mapping
- Sticky notes
- Basic art materials (coloured pencils, markers)
- Digital devices (if available) for quick reference

1. **Visual Analysis (5 minutes)**
   - Display 3-4 images of contemporary African artworks alongside international works

- learners individually record initial observations on visual elements and cultural references

Inclusive approach: Provide simplified analysis prompts for all learners

2. **Comparison Chart (10 minutes)**
   - In pairs, learners to create a simple comparison chart identifying:
     - Similarities between contemporary African art and Western art
     - Unique contributions of African artists to global art

Inclusive approach: Offer pre-formatted templates for learners needing structure

3. **Gallery Walk (10 minutes)**
   - Display comparison charts around the room
   - Learners rotate to view 2-3 charts, leaving brief comments on sticky notes
   - Inclusive approach: Allow verbal feedback options

4. **Think-Pair-Share (8 minutes)**
   - Individual reflection: "What is one significant impact of contemporary African art on the global art world?"
   - Pair discussion to refine ideas
   - Selected pairs share with the class

Inclusive approach: Provide question prompts for guided thinking

5. **Concept Mapping (12 minutes)**
   - In small groups, create a focused concept map showing:
     - 2-3 key contemporary African artists (e.g., El Anatsui, Ibrahim Mahama)
     - Their significant exhibitions/venues
     - Their specific impact on the art world

Inclusive approach: Assign roles based on strengths (recorder, artist, researcher etc.)

6. **Visual Response (13 minutes)**
   - Students create a quick visual response that:
     - Demonstrates understanding of one contemporary African artist's approach
     - Includes a brief written explanation of the artist's global impact

Inclusive approach: Offer multiple response formats (sketch, annotation, verbal recording)

PEDAGOGICAL EXEMPLARS

1. Managing Talk for Learning/Collaboration/Group work:
   a. In smaller groups, use images/video to examine the context and exhibition strategies of selected Biennale and Triennale in various parts of Africa and the rest of the world.
   b. Make provision for learners with visual and hearing needs, as well as body types for equity of access
2. Managing Talk for Learning/Collaboration/Group work: In a class discussion, examine how the context and exhibition strategies of selected Biennale and Triennale in various parts of Africa and the rest of the world are used to promote the socio-cultural identity of artists.

   Consider GATE and learners with speech disabilities and difficulties in English as first language as well as different religious beliefs and cultural background
3. Problem-based Learning/Group Work:
   a. Through group discussion, investigate the concepts that support the making of the artworks of selected African contemporary artists and deduce the impact of contemporary African art in the Artworld.
   b. Examples of artists: Aina Onabolu, Ibrahim Mahama, El Anastui, Nnenna Okore, Yinka Shonibare, Paju Alatise, Dorothy Amenuke, Theresa Ankomah, William Kentridge, Penny Siopis etc.

   Consider GATE and learners with language barriers especially, English as a first language. Cater for learners with speech and hearing needs, as well as gender sensitive language for equity of access

KEY ASSESSMENT: MID-SEMESTER EXAMINATION

Overview

Create a simple display that shows how ONE African artist has influenced global art. Show connections between their work and international art trends.

Instructions

Part 1: Research

- Choose ONE contemporary African artist who has international recognition. Find out:

- What makes their work special (materials, style, ideas)
- How their work connects to their African background
- How they have influenced artists or galleries outside Africa

Part 2: Display Creation

- Create a small display board (one poster) showing:
- An image of work by your chosen African artist
- An image showing how their influence appears in another artist's work
- A short explanation (100-150 words) of the connection between them

Part 3: Written Response

- Write a short paragraph (5-7 sentences) answering:
- How has this African artist changed how people think about art?
- Why does this cultural exchange matter?

Hint



*Conduct **Mid-Semester Examination**. It should cover contents taught from Week 1 to 5. Refer to the **Table of Specification and Structure of the Paper**. Learners' papers should be marked immediately and scores entered into the STP.*

Suggested Structure of Mid-Semester Examination

Section A: 25 Multiple-choice questions

Section B: 2 Essay Questions

Table of specification for item construction for section A and B

Week	Learning Indicator	Types of questions	DoK Levels				Total
			1	2	3	4	
1	Reflect and document contemporary Ghanaian art in terms of materials, fabrication methods, applications, and educational relevance	MCQs	2	2	–		4
		ESSAY	–	–	–		–
2	Evaluate and explain the contributions of contemporary Ghanaian art and artists to the Ghanaian art scene	MCQs	2	2	2		6
		ESSAY	–	–	1		1
3	Analyse and explain the impacts of contemporary Ghanaian art on the Artworld	MCQs	–	2	1		3
		ESSAY	–	–	–		

Week	Learning Indicator	Types of questions	DoK Levels				Total
			1	2	3	4	
4	Categorise and explain contemporary African art	MCQs	3	2	1		6
		ESSAY					
5	Discuss the contributions of African contemporary art and artists to art institutions in Africa	MCQs	1	3	2		6
		ESSAY			1		1
		Total	**8**	**11**	**8**		**27**

PLC SESSION 6

45 minutes | **Planning & Reviewing the Learning Plan**

1. Begin the session by recapping lessons from the previous session, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to

a. explain the week's concepts in a practical way that will make it easier for learners to understand.

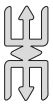
b. identify three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners (NTS 3a, 3g and 3m).

3. Use your subject specific app to plan your lesson. Ask the app to

a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.

b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q).

c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



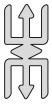
Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Use your app to plan and administer the mode of assessment for the Student Assessment Portal (SAP)
   a. The key assessment for the week is ***mid-semester examination***. Chat with your app to plan this assessment by reviewing or developing the assessment items/tasks and marking schemes/rubrics for the mid-semester examination (NTS 3k-3q).

10 minutes	Content Exploration

5. As a subject group, select one problem or topic/idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)
   b. all teachers in the group work through the problem individually for 3–4 minutes
   c. the group then works through it together the problem, step by step
   d. highlight the most common errors made at each step (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).
   a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.
   b. After the enactment, ask for structured feedback from the group
      i. was the concept explained in a way that a learner with no prior knowledge could follow?
      ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 7

Learning Indicator: *Identify and discuss the major milestones of contemporary art*

FOCAL AREA: IMPACT OF CONTEMPORARY AFRICAN ART ON THE ARTWORLD

Introduction

Contemporary African art takes many forms and styles. This lesson explores key events, movements, and artists that have shaped it, focusing on Africa's place in global art. African artists are gaining recognition for expressing culture, identity, and social issues and contributing to global art conversations. We will look at controversies in art exhibitions, how some works spark strong reactions and what these debates reveal about society, free expression, and the role of art. By studying major events like Biennales and Triennales, we will learn how they are organised, what themes they explore, and how they present art to global audiences. This will deepen our understanding of how contemporary art reflects today's world and how artists, curators, and exhibitions shape our views.

Contemporary Art Debates at exhibitions

Art exhibitions today often spark debate among artists, critics, and the public. Questions arise such as "What counts as art?", "Should art be political?", and "Are there limits to artistic expression?" Some feel modern works lack the skill or meaning of traditional art, while others see them as powerful reflections of society. Many contemporary artists focus on issues relevant to young Ghanaians, identity, climate change, gender equality, and cultural heritage. Their work invites us to consider the artist's message and how to interpret it. Exhibitions become spaces for sharing ideas and questioning views, helping us reflect on the role of art in everyday life. Common topics that spark debate include:

Definition of Art and its Boundaries

Many contemporary exhibitions question what counts as "art" today. Since the 1960s, artists have challenged tradition by using everyday items, digital media, and performance to break the rules. El Anatsui, for example, turns bottle caps and metal scraps into large tapestries, blurring the line between waste and art. His work, shown globally, makes us rethink artistic materials. Similarly, Marcel Duchamp's *Fountain* (a urinal) in 1917 raised the idea that an object becomes art through the artist's choice. Such works often spark debate, are they creative innovations or just meant to shock? These questions matter because they show how art evolves with society.

Role of Politics and Social Issues in Art

Contemporary art often tackles difficult issues like racism, gender, migration, and inequality, reflecting society's key concerns. Ghanaian artist Ibrahim Mahama, for example, uses old jute sacks from cocoa exports to highlight labour conditions, global trade, and colonial legacies. Such works can spark controversy, especially when they challenge powerful institutions or address sensitive topics.

Skill versus Concept

Modern art often raises questions about skill. Some works, like Malevich's *Black Square* or El Anatsui's bottle-cap pieces, seem simple, prompting viewers to ask, "Could I do that?" Traditional art required years of training, but today, many value the idea behind a piece as much as the technique. The debate asks: Do we value technical skill or powerful ideas more? This helps learners see that appreciating art means looking at both execution and meaning.

Cultural Representation and Appropriation

Exhibitions using cultural symbols often spark debate over representation and ownership. When non-African artists use African elements, like masks or patterns, without understanding or credit, it raises concerns about appropriation. While some see cultural exchange as natural, others highlight power imbalances. These debates teach students the value of context, intent, and respect in using cultural traditions.

Context and exhibition strategies of selected Biennale and Triennale

Biennales and Triennales are major art exhibitions held every two or three years, where artists from around the world address issues like identity, migration, technology, and the environment. Curators use themes, varied spaces, and interactive elements to engage wider audiences. These events spark dialogue between artists, viewers, and communities, shaping global contemporary art discussions.

Context of Biennale and Triennale

Biennales and Triennales are major global art events held every two or three years, showcasing new and experimental works. They explore key issues like climate change, identity, migration, and politics, often guided by a central theme. The Venice Biennale focuses on cultural identity and globalisation, the Yokohama Triennale on technology and the future, and the Sharjah Biennial highlights African and Middle Eastern perspectives, enriching global art conversations.

Exhibition Strategies

i. *Thematic Curation:* A strong theme is often chosen to shape the direction of the exhibition. Curators select artworks that respond to this central idea, helping to create a clear and focused experience for visitors. This approach makes the exhibition more meaningful, as each piece contributes to a larger conversation.

ii. *Site-Specific Installations:* Many Biennales and Triennales move beyond traditional gallery spaces. They use public spaces, old buildings, or outdoor environments to display artworks. This strategy makes art more accessible and helps connect it with the history, culture, or architecture of the location.

iii. *Interactive and Multimedia Displays:* To engage modern audiences, many exhibitions include sound, video, digital art, or interactive features. These methods allow visitors to experience art in new and exciting ways. Some artworks respond to movement, sound, or touch, making visitors part of the work itself.

iv. *Global Representation*: Biennales and Triennales aim to include artists from many countries and cultures. This diversity offers a wide range of views and experiences, helping to promote global understanding through art. Events like the Venice Biennale even have country pavilions, where nations present their own selected artists and themes.

Role of Curators in Shaping the Exhibition

Curators play a key role in the success of Biennales and Triennales. They are responsible for selecting artists, artworks, and designing the overall structure of the exhibition. In many cases, the curators are invited based on their unique vision or experience with global issues. Their choices influence how visitors understand the theme and how artworks are displayed. A well-curated show helps to guide the audience through complex ideas while offering a balanced mix of media, styles, and cultural perspectives.

Support for Emerging Artists

These large-scale exhibitions often give a platform to emerging or lesser-known artists. This exposure can help launch their careers by introducing them to international curators, collectors, and audiences. Some Biennales and Triennales include special sections or awards for young or first-time exhibitors. This focus on new voices adds fresh energy and keeps the event forward-thinking.

Economic and Cultural Impact on Host Cities

Hosting a Biennale or Triennale brings cultural prestige and economic benefits to the city or region. The event attracts tourists, art collectors, critics, and professionals from around the world. Local businesses, hotels, and cultural organisations often benefit as a

result. Additionally, the event encourages investment in local art infrastructure and creates jobs for artists, technicians, and organisers.

Sustainability and Environmental Awareness

In recent years, many art events have become more aware of their environmental impact. Some Biennales and Triennales now focus on sustainability by reducing waste, using recycled materials, and promoting eco-friendly artworks. Artists are also creating works that highlight climate change and the need to protect the environment. This not only reflects current concerns but also encourages both organisers and visitors to think about sustainability in everyday life.

Example of how the context and exhibition strategies of Contemporary Art has been applied in a specific Biennale (The Venice Biennale)

1. Context of the Venice Biennale

   The Venice Biennale, founded in 1895, is one of the oldest and most prestigious international art events. Held every two years, it showcases global contemporary art responding to current issues. Each edition follows a central theme. In 2022, "The Milk of Dreams" explored transformation, the body, and human–technology relations, encouraging artists to reflect on identity, change, and the future.

2. Exhibition Strategies of the Venice Biennale

   a. Thematic Curation: The main exhibition is always curated by an appointed artistic director, who sets a clear thematic direction. In 2022, curator Cecilia Alemani selected artworks that explored imagination, the human condition, and the digital age. This guided visitors through a strong narrative that connected many different works and ideas.

   b. Site-Specific Installations: The Biennale uses a wide range of venues, including historic buildings like the Arsenale and the Giardini. Some works are also installed in public spaces throughout Venice. This approach creates a dialogue between the artworks and the architectural or cultural setting of the city.

   c. Global Representation: One of the most unique features of the Venice Biennale is its national pavilions, where countries present their own exhibitions. Over 80 countries participate, giving space to a wide variety of artistic voices and cultural perspectives.

   d. Public Programmes and Education: The Biennale offers guided tours, lectures, workshops, and catalogues to help visitors engage more deeply with the artworks. Schools, universities, and general audiences can all benefit from these programmes, making the exhibition both educational and accessible.

Learning Task

Materials Needed (these are just suggestions. Teachers can add more materials as needed and available

- Printed/projected images of contemporary African artworks
- Large paper for comparison charts and concept mapping
- Sticky notes
- Basic art materials (coloured pencils, markers)
- Digital devices (if available) for quick reference

Activity Sequence

1. **Art Detective Challenge (15 minutes)**
   - Set up contemporary artwork stations and let learners examine them with prompts like:
     - "What tells you this is contemporary rather than traditional?"
     - "What social/cultural issues might this artwork address?"

2. **Living Timeline Construction (15 minutes)**
   - Learners physically arrange themselves as a "human timeline" based on artwork dates
   - Each Learner holds/represents one milestone artwork (1980s-present)
   - Learners must justify why each represents a "milestone"

3. **Impact Web Creation (15 minutes)**
   - Display a couple of African contemporary artists' works
   - Using coloured strings, Learners create connections between artists and;
     - global exhibitions that they influenced
     - art world debates that sparked
     - cultural institutions they transformed.
   - **Insight focus:** Visualising the real-world impact of contemporary African art

4. **Exhibition Curation Challenge (15 minutes)**
   - Group learners and give each group exhibition theme cards (e.g., "Identity in Digital Age")
   - Each group select 3-4 artworks from previous activities to "curate" a mini-exhibition
   - Each group create a quick exhibition statement explaining their selections

Inclusive approach: Assign roles based on strengths (recorder, artist, researcher, etc.) Offer multiple response formats (sketch, annotation, verbal recording)

PEDAGOGICAL EXEMPLARS

1. Managing Talk for Learning

   In smaller groups, research and develop a digital/manual timeline of major milestones and artists in contemporary art from the 1980s to the present.

2. Organise the classroom to cater for the needs of learners, especially those with visual and hearing needs, as well as body types and learning abilities, for equity of access.

3. Problem-based Learning/Group Work: In smaller groups, discuss the socio-cultural background of selected contemporary artists as well as the context of the works done within the documented timelines.

4. Problem-based Learning/Group Work: Through group discussion, investigate the new ideas and changes in the artworks associated with each of the milestones within the documented *timelines*.

KEY ASSESSMENT LEVEL 4: PROPOSAL WRITING

Many international art exhibitions like Biennales and Triennales present debates about whose art gets shown, how different cultures are represented, and who gets to make decisions about art.

Task: Design a proposal for a small exhibition that could be held in your school or community centre featuring contemporary Ghanaian art. Your exhibition must address one important debate in contemporary art (such as traditional vs. modern approaches, local vs. global influences, or accessibility of art).

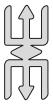
In your proposal:

- Create a title and theme for your exhibition that reflects your chosen debate
- Select 3-5 types of artworks that would be included (describe them if you can't name specific works)
- Explain how you would arrange these works in your space to highlight the debate
- Describe how you would engage visitors in the debate through one interactive element
- Explain how your exhibition strategy gives voice to perspectives that might be overlooked in major international exhibitions

PLC SESSION 7

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***proposal writing***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the presentation of the proposal (NTS 3k-3q).

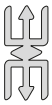
10 minutes	Content Exploration

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
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b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 8

Learning Indicator: *Analyse and explain the impacts of modern art on Contemporary African art*

FOCAL AREA: IMPACT OF MODERN ART ON AFRICAN ART

HOW MODERN ART IMPACTS AFRICAN ART

Introduction

Modern art has greatly influenced African art, especially in expressing identity and culture. African artists now use abstract forms, mixed media, and digital tools to share stories of history, tradition, and daily life, blending modern methods with African roots. Many combine traditional elements like masks, textiles, and symbols with modern ideas to address issues such as inequality, climate change, and human rights. A proposal for such work can mix both styles to create messages linking past and present. Comparing modern European and contemporary African art shows how culture shapes the themes artists explore.

Impact of Modern Art on African Art

Modern art has allowed African artists to blend traditional practices with global ideas, making their work more dynamic and widely recognised. Esther Mahlangu, for example, applies Ndebele mural painting to cars and canvases, keeping tradition alive in new forms.

Modern art also gives artists more freedom to express personal and political views. Unlike earlier art made mainly for religious or social use, artists like Ben Enwonwu have explored identity, post-colonialism, and African pride through their work. Today, African artists gain global attention. Zanele Muholi uses photography to highlight Black lives and human rights, sharing African stories with the world through modern techniques and international exhibitions.

Use of Modern Art techniques that transform the expression of identity and culture in Contemporary African artworks

Contemporary African artists blend traditional themes with modern techniques like mixed media, collage, and digital art to explore identity, culture, and social issues.

Cyrus Kabiru from Kenya uses recycled materials to create eyewear sculptures that reflect innovation, pride, and environmental concerns. Nigerian photographer J.D. 'Okhai Ojeikere captured women's hairstyles to document cultural identity, with digital platforms now helping such work reach global audiences. Gonçalo Mabunda from Mozambique

turn weapons into thrones and masks, using modern art to retell history and promote healing.

Developing a visual or written proposal to combine traditional African art and modern art to address a social issue in Ghana

To create a strong visual or written proposal, begin by selecting a key social issue in Ghana—such as galamsey, poor sanitation, road safety, youth unemployment, or corruption—to ensure community relevance. Next, draw on traditional Ghanaian art forms. Use Adinkra symbols like *Eban* (protection) or *Nkyinkyim* (life's journey) to express the theme. Incorporate textiles with bold colours and meaningful patterns to represent unity or strength.

Show how modern techniques, like graffiti, digital design, or installation, will enhance the work. A mural blending Adinkra with graffiti could raise awareness of road safety. Artists like Bright Ackwerh use cartoon and digital styles to tackle serious topics with humour and clarity. Finally, outline the purpose, materials, method, and display plan so the message is clear and the proposal gains support.

Use of themes in a modern European artwork and a contemporary African artwork to reveal cultural contexts

Modern European and African artists often reflect their cultures through art. European artists like Picasso, for example, responded to war and industrialisation—his *Guernica* shows the pain of the Spanish Civil War using distorted forms and emotion. African artists, however, often focus on identity, memory, and community shaped by colonisation and tradition. Yinka Shonibare, a Nigerian artist, uses Dutch wax fabrics in sculptures to question race, class, and colonial history, blending African materials with global themes.

Inspiration for Social Change

Modern African artists increasingly use their work to challenge injustice and inspire change. Art now raises awareness of issues like human rights, gender inequality, and the environment. Cameroonian artist Barthélémy Toguo, for example, uses painting, installation, and performance to explore themes such as migration, climate change, and disease, linking African struggles to global concerns. By blending traditional storytelling with modern imagery, artists move audiences and inspire action.

Revival and Preservation of Cultural Heritage

Modern art techniques help preserve and revive African cultural heritage by reimagining traditional forms for today's world. Malian photographer Malick Sidibé, for example, used black-and-white photography to capture youth, fashion, and daily life in post-independence Mali, preserving cultural history in a modern way. Young artists now

return to crafts like beadwork, pottery, and textiles, blending them with new ideas and materials. This keeps traditions alive and relevant, showing that African culture continues to grow and evolve.

Learning Task (formative assessment)

Task 1: Refer to Mini Project for Weeks 5-7

Materials

- Physical/Digital images of Modern art (1850-1950) and Contemporary African art
- Art analysis worksheets (to be generated by the learners)
- Impact web diagrams (to be generated in groups by learners)
- Visual thinking guides. (to be generated in groups by learners)

Activity Structure

1. **Visual Discovery Pairs (15 minutes)**
    - Learners work in pairs to examine paired images (one Modern art, one African art)
    - Using visual thinking guides, they:
        - Identify 3 visual similarities in technique, style, or composition
        - Note 2 differences in cultural context or meaning
        - Record observations on dual-column worksheets

Inclusive adaptation: Image sets include clear visual labels and simplified text descriptions

2. **Influence Mapping Circle (20 minutes)**
    - Form groups of learners with mixed abilities
    - Give each group a diagram with:
        - Centre circle: "Influence Exchanges"
        - Inner ring: Modern art movements (Cubism, Expressionism, etc.)
        - Outer ring: Contemporary African artistic responses
    - Groups place connection cards showing specific influences between rings

Collaborative roles: Timekeeper, Materials Manager, Scribe, Presenter, Inclusion Monitor

3. **Impact Gallery Exchange (15 minutes)**
   - Groups display their influence maps
   - Learners circulate using the "Three Voices" technique:
     - "I noticed..." (observation about a connection)
     - "I wonder..." (question about an influence)
     - "This reminds me of..." (personal connection)
   - Each student leaves written feedback using sticky notes/A4 sheets

Accessibility option: Verbal recording station available for students with writing difficulties

4. **Synthesis Reflection (10 minutes)**
   - Individual learners' reflection using prompts:
     - One way by which Modern art techniques were transformed by African artists
     - How African cultural contexts changed imported artistic ideas
     - Why certain Modern movements had a stronger influence on African art
   - **Multiple response formats:** Written, visual diagram, or audio recording options (where resources are available)

PEDAGOGICAL EXEMPLARS

- Managing Talk for Learning/Collaboration/Group work:

  In small groups, examine the main differences and similarities between African Art and Modern art.

  Consider GATE and learners with language barriers like especially English as a first language. Cater for learners with speech and hearing needs, as well as gender sensitive language for equity of access

- Managing Talk for Learning/Collaboration/Group work: In small groups, that cater for learners with speech disabilities and as well as different religious beliefs and cultural backgrounds, examine African Art and Modern art in terms of context, materials and methods as well as uses.

- *Problem-based Learning/Group Work:* Through group discussion, investigate the concepts that support the making of the artworks in both African Art and Modern art and deduce the impact of Modern art on African art.

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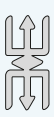
KEY ASSESSMENT LEVEL 3: ESSAY WRITING

Modern African artists often mix foreign styles with local ideas. Write an essay explaining how this mix helps challenge old views about African art and gives it new meaning.

PLC SESSION 8

45 minutes	Planning & Reviewing the Learning Plan

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2. Use your subject specific app to explore the content before planning. Ask the app to
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3. Use your subject specific app to plan your lesson. Ask the app to
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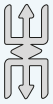
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4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***essay writing***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the essay writing (NTS 3k-3q).

10 minutes **Content Exploration**

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)
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Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
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- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes **Enactment**

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).
   a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.
   b. After the enactment, ask for structured feedback from the group
      i. was the concept explained in a way that a learner with no prior knowledge could follow?
      ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).
8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).
9. Remember to
   a. transfer your chats into your learning planner template.
   b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).
   c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

Section 1 Review

Throughout this eight-week exploration, we've examined the dynamic landscape of contemporary African art, with particular focus on Ghana's contributions. We began by documenting contemporary Ghanaian artistic practices, analysing their distinctive materials, fabrication methods, and applications within educational contexts. Our investigation deepened as we evaluated Ghanaian artists' significant contributions to the national art scene and analysed their growing influence on global art discourse. Broadening our perspective, we then categorized diverse expressions in contemporary African art across the continent, examining how African artists have transformed their regional art institutions and increasingly shaped international art conversations. Our study culminated in identifying pivotal milestones in contemporary art's evolution and analysing the complex relationship between Western modern art movements and contemporary African artistic expression. Through this progression, we've developed a critical understanding of how contemporary African artists navigate between traditional influences and global art currents, asserting unique aesthetic perspectives while addressing universal human concerns. This comprehensive exploration has provided you with analytical frameworks to appreciate African art's distinctive voice and growing significance within the global art ecosystem.

APPENDIX: MARKING SCHEMES FOR THE KEY ASSESSMENTS

WEEK 2

Criteria	Excellent (4)	Very Good (3)	Satisfactory (2)	Needs Improvement (1)
Research Depth	Research using diverse sources; evidence of both primary and secondary research	Research using reliable sources; good balance of sources	Research using limited sources; over-reliance on one type of source	Research with few sources
Analysis of Material Evolution	Analysis of El Anatsui's material evolution with specific examples and insightful connections	Analysis of material evolution with appropriate examples and valid connections	Analysis of materials, with a few examples and simple connections	Analysis with vague references and weak connections
Impact Assessment	Evaluation of the influence on other artists with specific examples and evidence	Evaluation of the influence on other artists with good examples	Description of influence with limited examples	Mention of influence without supporting examples
Educational Significance	Evaluation of educational significance with compelling connections to environmental issues	Evaluation of educational significance with logical connections to environmental issues	Explanation of educational significance with simple connections	Mention of educational significance with unclear connections
Visual Presentation	Exceptionally organised timeline with creative and effective visual elements	Well-organised timeline with appropriate visual elements	Basic timeline with simple visual elements	Disorganised timeline with ineffective visual elements

WEEK 3

Criteria	Excellent (4)	Very Good (3)	Satisfactory (2)	Needs Improvement (1)
Research	Discuss multiple and reliable sources, including more than 2 interviews, exhibits, and firsthand accounts	Multiple and reliable sources, including 2 of interviews and, or exhibits, and or firsthand accounts	Limited credible sources, , including one of interviews, or exhibits, or firsthand accounts	Few sources, without interviews and, or exhibits, and or firsthand accounts
Educational Impact	Analysis of impact with more than three examples and outcomes	Analysis of impact with three examples and outcomes	Analysis of impact, less than three examples and outcomes	Mention of impact without outcomes
Exhibition Practices	Critical assessment with specific innovations	Clear evaluation with examples	Basic description, limited evaluation	Minimal mention without evaluation
Professional Impact	Assessment with more than 4 examples	Assessment with 4 examples	Description with 3 examples	Description without examples

WEEK 4

Answer Key

1. B

2. D

3. B

4. B

5. C

6. B

7. B

8. A

9. B

10. D

Marking Scheme: 1 mark for a correct answer (1mark x10 = 10 marks)

WEEK 5

Question 1: Examine how one artist-founded institution in Africa has created new models for exhibiting, preserving, and engaging communities with contemporary art. (30 marks)

Criteria	Excellent (4)	Very Good (3)	Satisfactory (2)	Needs Improvement (1)
Institution	Clearly named and well explained	Named with some explanation	Mentioned with little detail	Not clear or missing
Exhibition	Creative ways of showing art	Good examples of showing art	Some ideas given	Not explained
Preservation	Clear ways of protecting artworks	Some good examples	Few efforts mentioned	Not explained
Community Work	Strong examples of engagement	Good community links	Some mention of community	Little or no mention
Ideas & Writing	Clear, thoughtful, well written	Some good ideas and clear writing	Few ideas, some errors	Poor ideas and unclear writing

Question 2: Compare a national museum and an artist-run space in Africa, evaluating their roles in contemporary art. (30 marks)

Criteria	Excellent (4)	Very Good (3)	Satisfactory (2)	Needs Improvement (1)
Identification	Names both spaces with a good background	Names both with some background	Name one or present a little background	Names none or presents unclear explanation
Comparison	Strong comparison with clear differences and similarities	Good comparison with some detail	Basic comparison, lacks depth	Little or no comparison
Roles Explained	Explains important roles each plays in art	Explains roles mostly clear with examples	Some roles explained	Roles are mentioned
Evaluation	Thoughtful judgement of their impact	Some evaluation and opinions	Weak judgement, little insight	No clear opinion or impact

Criteria	Excellent (4)	Very Good (3)	Satisfactory (2)	Needs Improvement (1)
Organisation & Clarity	Very clear and well-structured writing	Clear writing with minor errors	Some confusion and grammar errors	Unclear and disorganised

WEEK 6

Criteria	Needs improvement (1-2)	Satisfactory (3-4)	Very good (5-6)	Excellent (7-8)
Research & Understanding	Limited information about the artist; little information about their work.	Basic information about the artist; some understanding of their work.	Detailed information about the artist; clear understanding of their work.	Comprehensive research on the artist; insightful understanding of their importance, work, and background.
Connection Analysis	Connection between African artist and global influence is unclear or superficial	Basic connection identified between African artist and global influence	Clear, meaningful connection explained between African artist and global influence.	Sophisticated analysis of how the African artist has influenced global art with specific examples.
Visual Presentation	Display is disorganised or incomplete; poor visual communication	Display is complete with basic organisation; satisfactory visual communication.	Display is well-organised with clear labels and good visual examples but does not clearly demonstrate influence.	Display is exceptionally organised with compelling visual examples that clearly demonstrate influence.
Critical Reflection	Simple statements without analysis; minimal engagement with broader significance	Basic reflection that begins to address significance beyond description	Thoughtful reflection that clearly explains importance of the cultural exchange.	Insightful reflection that addresses power dynamics and significance in the global art world.

WEEK 7

Debate

Criteria	Excellent (7–8)	Very good (5–6)	Satisfactory (3–4)	Needs improvement (1–2)
Understanding of Art Debates	Shows a sophisticated understanding of a complex art debate, supported by specific examples.	Shows a clear understanding of a specific art debate with some detail.	Shows basic understanding of one art debate.	Shows limited awareness of contemporary art debates.
Exhibition Concept	A compelling theme that thoughtfully addresses the debate from multiple angles.	A focused theme that effectively addresses the chosen debate from one angle.	The theme connects to the debate but may lack focus.	Basic theme with little connection to the chosen debate.
Selection of Artworks	Artwork selections strategically support the theme and offer multiple perspectives on the debate.	Artwork selections support the theme and debate with explanations of specific connections.	Artwork selections generally support the theme, but connections may be unclear.	Artwork selections show little relation to the theme or debate.
Exhibition Strategy	Innovative arrangement strategy that meaningfully emphasises the debate and engages viewers.	Clear strategy for arrangement that enhances understanding of the debate.	Basic explanation of the arrangement with a purpose.	Limited explanation of the arrangement with no clear purpose.

WEEK 8

Modern African artists often mix foreign styles with local ideas. Write an essay explaining how this mix helps challenge old views about African art and gives it new meaning.

Criteria	Excellent (8–7)	Very Good (6–5)	Satisfactory (4–2)	Needs Improvement (1)
Understanding of topic	Shows strong understanding of both modern and local African styles	Shows good understanding with a few small errors	Shows basic understanding with weak details	Shows no clear understanding
Explanation of impact	Clearly explains how styles mix to challenge old views and add meaning	Explains impact but with limited detail	Identifies with weak explanation; message not fully clear	identifies with no explanation given
Examples/Ideas used	Strong, clear examples that match the topic well	Some useful examples with basic links to topic	Few examples or weak support	Examples or unrelated ones
Organisation and clarity	Very clear writing and well-organised ideas	Mostly clear writing, few errors	Hard to follow or not well arranged	Confusing and poorly written

SECTION 2: MAJOR DESIGN CONCEPTS

STRAND: THE CREATIVE JOURNEY (FROM CAVES TO 21ST CENTURY)

Sub-Strand: Design History

Learning Indicator: *Examine and participate in debates on 21st- century design concepts and applications*

Content Standard: Demonstrate knowledge and understanding of design concepts in the 21st- century.

INTRODUCTION AND SECTION SUMMARY

This two-week module explores 21st-century design thinking and practice. We begin with key concepts since 2000, sustainable design, human-centred approaches, and digital fabrication, examining how these tackle global issues and how Ghanaian designers adapt them locally. Next, we discuss design's role in addressing social, environmental, and cultural challenges in Ghana. Through case studies and debate, you'll gain skills to analyse and evaluate design as more than aesthetics, as a tool for change, sustainability, and cultural expression. By the end, you'll have the vocabulary and frameworks to think critically about design and its impact, whether as a future designer or an informed citizen.

Learning indicators covered include:

- **Week 9:** Analyse major design concepts in the 21st-century.
- **Week 10:** Appreciate and make judgements in debates on 21st-Century Design

The Learning Indicators captured under the Introduction and summary, will be built directly on learning areas from Years 1 and 2. The mastery of design elements, visual communication, and basic analysis now supports more advanced work. Previously Learners identified and described design concepts, will now analyse their impact, evaluate their effectiveness, and make informed judgments about contemporary approaches. This progression from understanding to critical evaluation represents the natural development of the design thinking abilities.

Recap of Indicators

Year 1	Week 8: Explain design concepts in ancient cultures. Week 9: Categorise social and material conditions that produced designs in ancient cultures.
Year 2	Week 7: Categorise and discuss major modern design concepts, theories, and schools. Week 8: Analyse social and material conditions that produced designs and products.

SUMMARY OF PEDAGOGICAL EXEMPLARS

This project employs diverse, inclusive pedagogical strategies that engage all learners through multiple pathways for participation. Experiential learning activities include analysing visual examples of modern and African artistic traditions with multilingual supports and tactile examples, while problem-based approaches challenge students to address community issues through artistic dialogue between traditions, supported by differentiated groupings and visual references. Collaborative elements incorporate mixed-ability discussions and visual mapping activities that value diverse perspectives using gender-sensitive language and culturally responsive examples, culminating in project-based creation of original artworks with flexible material and format options that connect artistic concepts to students' lived experiences. Throughout all activities, accessibility accommodations include visual supports for hearing-impaired learners, verbal options for those with writing difficulties, culturally responsive examples, and assessment criteria that recognize diverse expressions of understanding—ensuring meaningful engagement across different learning styles, abilities, cultural backgrounds, and language proficiencies.

ASSESSMENT SUMMARY

This section uses a two-tiered assessment approach for evaluating 21st-century design understanding. Level 3 (strategic thinking) requires students to analyse local design challenges, compare traditional and global approaches, and create SDG-linked prototypes with peer critique. Level 4 (extended critical thinking) involves developing innovative cross-disciplinary solutions through essays, presentations, and developmental portfolios. Assessment strategies include varied presentation formats, collaborative options, and clear rubrics evaluating process, concept, technique, and social impact. Regular implementation of diverse assessment methods ensures inclusive evaluation across different learning styles, abilities, and language proficiencies while providing consistent feedback for learning progression.

Note:

A variety of assessment modes should be implemented to evaluate learners' understanding and performance in the concepts covered in this section. It is essential for teachers to conduct these assessments regularly to track students' progress effectively. You are encouraged to administer the recommended assessments each week, carefully record the results, and submit them to the Student Assessment Portal (SAP) for documentation. The assessments are;

Indicators	DOK Level	Assessment Strategy and/or Mode
Analyse major design concepts in the 21st-century.	3	Homework
Appreciate and make judgements in debates on 21st-Century Design	4	Group Research Project

WEEK 9

Learning Indicator: *Analyse major design concepts in the 21st-century*

FOCAL AREA: UNDERSTANDING DESIGN CONCEPTS

MAJOR DESIGN CONCEPTS IN THE 21ST CENTURY

Introduction: Design in the 21st Century

Emerging Concepts: Tradition Meets Innovation

21st-century design builds on a long history, from stone tools and kente to engines, computers, and virtual reality. Today's designers use advanced tools: 3D printing for complex forms, AI for fast ideas, and AR for user testing. Despite tech advances, good design still meets real human needs within limits of time, cost, materials, and culture. A school chair must still support the body, whether handmade or 3D-printed. Some design experts warn that schools focus too much on form and function, ignoring wider social, economic, and environmental contexts. A beautiful object that overlooks user needs or material sources may cause more harm than good. Every design choice, materials, methods, and purpose, has wider impact.

Building on this awareness, Designers for the 21st Century champion four essential cornerstones:

i. **Human-Centred Design** – Starting with a deep understanding of people's lives rather than just treating surface problems. Designers now spend weeks living in communities before proposing solutions.

ii. **Sustainable Design** – Considering environmental impact throughout the design lifecycle. The award-winning Trashy Bags initiative in Accra transforms water sachets into durable products, addressing waste while creating livelihoods.

iii. **Systems Thinking** – Seeing each project within larger networks. A school uniform design must consider how it looks, local textile production, washing methods, and eventual recycling options.

iv. **Iterative Prototyping** – Testing ideas quickly and improving based on feedback. 21st-century designers create simple models, gather user reactions, and refine continuously rather than perfecting designs in isolation.

From these approaches, three guiding principles emerge for designers everywhere:

Responsibility – Accounting for every social, cultural, and environmental impact of your work.

Empathy – Seeing the world through others' eyes, honouring local contexts and traditions.

Adaptability – Embracing change through experimentation and continuous learning.

Human-centred Design

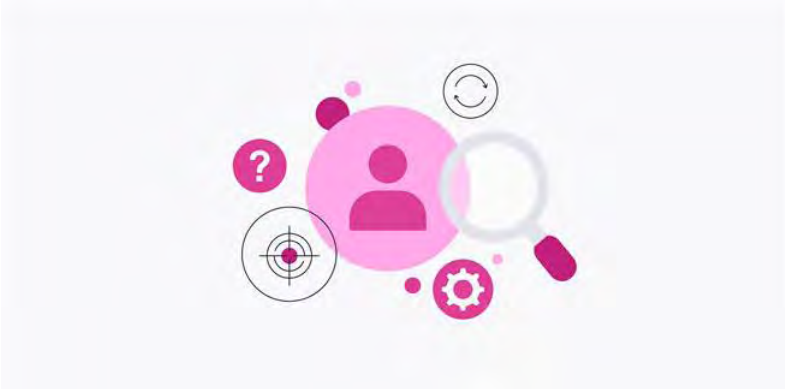


Figure 9.1: *Cynthia Yinney. Human-centred design. 2023.*

Source: *UX Design Institute. https://www.uxdesigninstitute.com/blog/what-is-human-centered-design/*

Figure 9.1. shows a digital illustration that focuses on human-centred design. At the centre is a pink circle with a simple human icon, representing the user. Around it are symbols like a question mark (curiosity), a target (focus), a gear (process), and a circular arrow (iteration). A magnifying glass overlaps the human icon. The background is white with scattered pink dots for visual interest.

Human-Centred Design (HCD, also ISO 9241-210) focuses on putting people's needs at the heart of creating new products and services. Instead of designers working alone, as in modern design concepts, this approach involves real users at every stage, from understanding problems to testing solutions.

HCD designers focus on four key aspects by

i. focusing on people and their context,

ii. seeking to understand and solve the right problems, from the root problems.

iii. understanding that everything is a complex system with interconnected parts.

iv. intervening with continual prototyping, testing, and refining to meet the needs of the people.

Key Human-Centred Design Principles

1. **Empathy**: Understanding users as whole people, not just customers.
2. **Target the Right Users**: Identify who will use your design before starting. Research your users' demographics, needs, and common challenges without making assumptions.

3. **Define Problems Clearly**: Working with users to understand exactly what needs solving. A well-defined problem statement serves as your guiding star throughout the design process.
4. **Follow a Structured Process**: Moving through inspiration, ideas, and testing in an organised way. Begin with research to understand users, then generate possible solutions, create prototypes, and test them with real people. (See Year 2-Design Process)
5. **Keep Solutions Simple**: Creating straightforward answers that do not add complexity. The best designs solve problems without creating new ones.

Sustainable Design

Sustainable design means creating things that don't harm our planet. When designers work sustainably, they think about how their products affect the environment, people's health, and our future. The main goals of sustainable design is seem in the use of fewer natural resources.

Sustainable Design Principles

Sustainable Design Principles in the Ghanaian Context

SD Principle	Simple Definition	Ghanaian Context	Student Application
Low-impact Materials	Using materials that don't harm people or the environment	Bamboo and raffia palm used in traditional crafts are renewable and biodegradable	Design a school bag using recycled water sachets instead of new plastic
Energy Efficiency	Creating designs that need less power to make and use	Traditional courtyard houses in northern Ghana stay cool naturally without electricity	Design a food container that keeps food warm without needing reheating
Emotional Durability	Making things people will care about and keep longer	Kente cloth becomes a family treasure passed through generations because of its meaning	Add traditional symbols or personal elements to products so people value them more
Design for Reuse	Creating products that can have a second life	Calabash containers are repurposed as bowls, scoops, and decorations when they crack	Design school furniture that can be easily taken apart and reassembled for new uses
Appropriate Durability	Building things strong enough for their purpose but not wasting resources	Traditional clay water pots last for years but eventually return to the earth	Design school uniforms to last exactly as long as students need them

SD Principle	Simple Definition	Ghanaian Context	Student Application
Material Simplicity	Using fewer different materials in one product	Traditional cooking utensils made from single materials (wood spoons, clay pots)	Redesign a complex product to use fewer types of materials
Impact Measurement	Knowing how your design affects the environment	Calculating how far imported school materials travel versus local alternatives	Compare the environmental impact of a plastic chair versus a locally made wooden one
Biomimicry	Learning design solutions from nature	Studying termite mounds to design naturally cooled buildings	Design a water collection system based on how certain plants gather morning dew
Service Models	Sharing resources instead of everyone owning their own	Community shared spaces like markets rather than individual shops	Create a tool-sharing system for art supplies instead of each student buying their own
Local Resources	Using materials that grow or are made nearby	Building with locally harvested bamboo instead of imported timber	Design a school project using only materials found within 10 kilometres

Systems Thinking

Seeing the Whole: Systems Thinking in Design

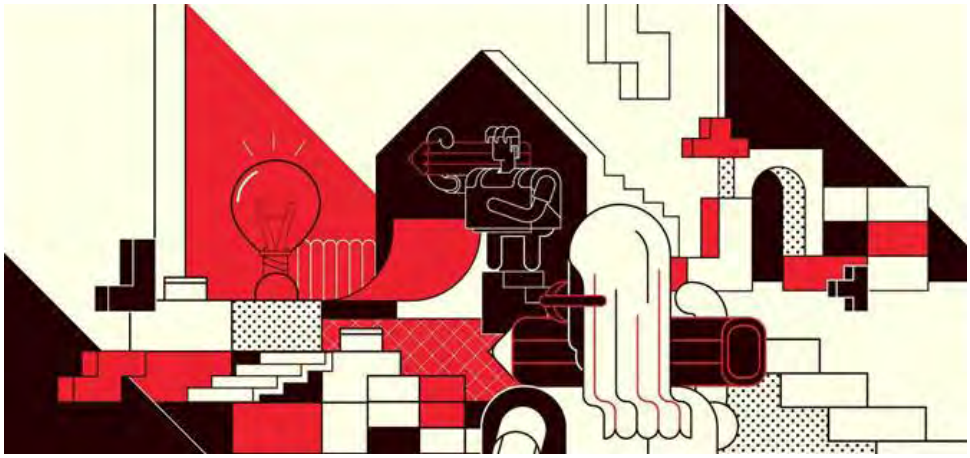


Figure 9.2: *Connolly Emmert. Six principles of system design. 2020.*
Source: *https://www.intercom.com/blog/six-principles-of-system-design/*

Figure 9.2 shows an abstract image in red, black, and cream tones in geometric shapes, mostly rectangular and triangular. A light bulb is in a triangular shape in red colour at the left, while a human figure holds a large pencil inside a house-like shape in the middle of the picture/design. The background is filled with stairs, blocks, and patterns.

Systems thinking focuses on how objects connect to people, technology, nature, and society. Traditional design solves single problems; systems thinking sees the bigger picture. A plastic bottle links to oil, factories, transport, waste, and health.

We often want quick fixes, like adding speed bumps after accidents. Systems thinkers ask deeper questions. This approach tackles root causes, not just symptoms, and looks at both short- and long-term effects. Traditional Ghanaian practices often reflect systems thinking. Mixed farming boosts soil and controls pests. Compound houses save resources and support family life.

Key Principles of Systems Thinking

1. Keep It Simple by focusing on solving today's real problems, not tomorrow's possible ones. Don't make things more complicated than they need to be. .
2. Make It Easy to Understand. Anyone can look at your system and understand how it works.
3. Hide Complexity by put difficult parts in places where people don't go often. Keep everyday actions simple.
4. Build on What People Already Know by making your new system similar to what people already understand. cultural elements.

ITERATIVE DESIGN

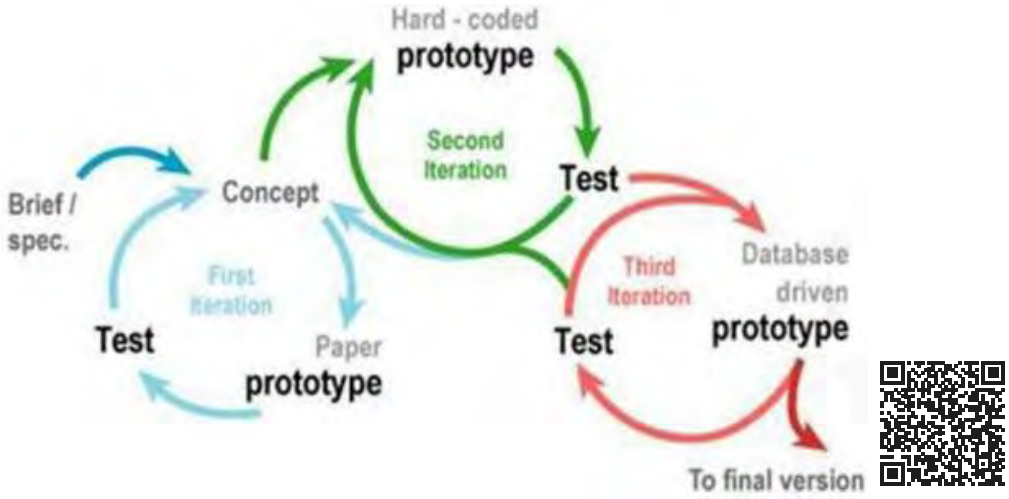


Figure 9.3: *Stephen Christopher Brown. The role of paper prototypes in iterative design and test cycles. 2009. Digital Illustration.*

Source: *https://www.researchgate.net/publication/285588742_Paper_prototypes_and_beyond*

Figure 9.3 shows a digital illustration of a flowchart diagram showing an iterative prototyping process. The diagram is divided into three main cycles, each represented by a different colour and labelled as iterations.

- The first (blue) cycle starts with "Brief/spec.", connected with an arrow to "Concept" on the right, then to "Paper prototype", and then to "Test". This is labelled "First iteration".
- The second (green) cycle starts from "Test" and moves to "Hard-coded prototype", then back to "Test". This is labelled "Second iteration".
- The third (red) cycle starts from "Test" and moves to "Database driven prototype", then back to "Test". This is labelled "Third iteration".
- The final arrow from the third cycle points to "To final version".

Iterative Design

Introduction

Iterative design improves products through repeated cycles of making, testing, and refining. Rather than aiming for perfection at once, designers create quick versions, learn from feedback, and improve gradually. This method, long used in crafts like pottery and weaving, became more structured in 20th century industrial design. Today, digital tools and fast-changing markets make it essential.

The modern iterative design cycle with Core Steps in design thinking and process:

- **Understand** - Research the problem and user needs
- **Define** - Clearly state what you are trying to solve
- **Ideate** - Generate many possible solutions
- **Prototype** - Build quick versions of the best ideas
- **Test** - Get feedback from real users
- **Refine** - Improve based on what you learned
- **Repeat** - Continue cycles until satisfactory

Key differences in the 21st Century approach lie in:

- **Faster cycles** - Days or weeks instead of months or years
- **Earlier user involvement** - Testing begins with rough concepts
- **Digital tools** - Computer modelling, virtual testing, online feedback
- **More data-driven** - Decisions based on measurement and analytics
- **Global perspective** - Designs must work across cultures and contexts

Types of Prototypes

Low-fidelity Prototypes

- Paper sketches, cardboard models, simple storyboards

- Very quick and cheap to create
- Test basic concepts and general ideas
- Example: Paper drawing of a mobile app interface

Medium-fidelity Prototypes

- Working models with limited functions, wireframes, and physical mock-ups
- More detailed but still not final quality
- Test specific features and interactions
- Example: Working app with basic functions but simplified graphics

High-fidelity Prototypes

- Nearly complete versions, detailed models, full simulations
- Look and function like the final product
- Test complete experience before final production
- Example: Fully functional app with proper graphics and interactions

Why iterative design matters today in the 21st-century design concepts in the

1. **Changing Conditions**
   - **Technology evolves rapidly** - designs must adapt quickly
   - **Markets change faster than ever** - customer needs shift constantly
   - **Problems are more complex** - simple solutions often fail
   - **Resources are limited** - we cannot afford big mistakes
2. **Benefits for Modern Designers**
   - **Reduces risk** - Identifies problems when they're cheap to fix
   - **Saves resources** - Avoids wasting time on unsuccessful paths
   - **Improves quality** - Each version gets better through feedback
   - **Builds understanding** - Designers learn deeply about user needs
   - **Creates relevance** - Solutions stay connected to changing needs
   - **Encourages innovation** - Allows exploration without fear of failure

Examples of Modern Iterative Design

Global Examples

- **Smartphones** - Each model improves based on user feedback from previous versions

- **Software** - Regular updates refine features based on how people actually use them
- **Automobiles** - Manufacturers test prototypes extensively, making improvements with each generation
- **Medical devices** - Designs improve through clinical testing and practitioner feedback

Ghanaian Contexts

- **Mobile payment systems** like MTN Mobile Money evolved through multiple iterations based on local usage patterns
- **Improved cookstoves** designed through cycles of testing with local cooks
- **Educational materials** refined through classroom testing with Ghanaian students
- **Healthcare delivery systems** improved through feedback from rural communities

Essential Skills for Iterative Designers

1. **Mindset**
    - **Comfort with uncertainty** - Accepting that first attempts won't be perfect
    - **Openness to feedback** - Willingly seeking and accepting criticism
    - **Adaptability** - Changing direction based on new information
    - **Persistence** - Continuing to improve despite setbacks
2. **Technical Skills**
    - **Rapid prototyping** - Creating quick versions to test ideas
    - **User testing methods** - Gathering meaningful feedback
    - **Analysis** - Understanding what feedback means for design
    - **Documentation** - Tracking changes and learnings between versions
3. **Social Skills**
    - **Active listening** - Truly hearing what users say about designs
    - **Collaboration** - Working effectively with others in the design process
    - **Communication** - Clearly explaining ideas and concepts
    - **Empathy** - Understanding the user's perspective and experiences

Iterative design has grown from traditional craft into a key 21st-century method. By creating, testing, and refining, designers develop solutions that meet real needs and adapt to change. Used in tech, services, or community projects, it suits both global and Ghanaian settings. It shows that progress comes through steady improvement, not instant perfection.

Digital Transformation



Figure 9.4: *Dale Kehler. Digital transformation is achievable for all manufacturers. 2019. Digital Illustration.*

Source: *SYSPRO. https://za.syspro.com/blog/digital-business-and-erp/why-digital-transformation-is-for-all-manufacturers/*

Figure 9.4 shows a picture that depicts a futuristic, high-tech scene from a modern automated factory. A person in a business suit stands in the foreground, representing human control and oversight. They are actively using a glowing tablet to interact with the systems around them. In the background, large and powerful robotic arms perform industrial tasks. The entire scene is bathed in a cool, blue light, giving it a sophisticated and digital feel. Floating over the image is a translucent, holographic-like interface filled with glowing icons. These icons symbolize key industrial concepts like connectivity, energy, and maintenance. There are also graphs and data readouts, highlighting the importance of information.

Digital transformation uses computer technology to rethink how we design, produce, sell, and use goods and services. It goes beyond adding tech to old methods—enabling new ways of working. In design, it speeds up creation, improves testing, boosts feedback, and makes once-impossible ideas achievable. Before digital tools, designers worked mainly with paper, physical models, and face-to-face communication. Changes were slow and expensive. Consider these shifts:

1970s-1980s: Basic computer tools began to help with technical drawings

1990s: Design software allowed for more detailed digital modelling

2000s: Internet connectivity enabled collaboration across distances

2010s: Mobile technology, cloud computing, and data analytics transformed the process

2020s: Artificial intelligence and automation are creating new possibilities

Key Components of Digital Transformation in Design

Digital Tools and Platforms

Computer programs now help with everything from initial sketches to final production.

Data-Driven Decision Making

Instead of relying only on designer intuition, modern design uses data about how people actually use products.

Connected Products and Services

Many products now connect to the internet, allowing them to update, collect user data, and offer new features over time.

New Business Models

Digital transformation enables new ways of providing products and services.

HOW DIGITAL TRANSFORMATION CHANGES DESIGN PROCESS

Design Phase	Traditional Methods	Digitally Transformed Methods	Benefits of Transformation	Ghanaian Examples
Research	• Face-to-face interviews Paper surveys • Observing small local groups • Library research	• Online surveys reaching thousands • Social media listening • Digital behaviour tracking • Remote user testing • Big data analysis	• Larger sample sizes • Faster collection • More diverse participants • Unbiased behaviour data	Market researchers using mobile surveys to understand rural consumer preferences instead of travelling to each village
Ideation	• Paper sketches • Physical brainstorming • Handmade mood boards • Individual creativity	• Digital sketching tools • Virtual collaboration platforms • Online inspiration sources • AI-assisted idea generation	• Team collaboration across distances • Easy sharing and feedback • Access to global inspiration • More variations explored	Ghanaian fashion designers collaborating virtually with fabric producers to create new pattern ideas
Prototyping	• Physical models made by hand • Expensive materials • Time-consuming construction • Limited variations	• 3-D modelling software • Virtual/augmented reality • Digital simulations • 3D printing • Rapid digital iterations	• Faster creation • Lower cost per prototype • More versions tested • Easier modifications	Architectural models of new buildings in Accra are created digitally before construction begins
Testing	• Small in-person focus groups • Limited geographic reach • Subjective feedback • Single versions tested	• Remote testing with diverse users • A/B testing multiple versions • Analytics tracking • Continuous feedback	• More diverse testers • Objective usage data • Testing multiple versions • Ongoing improvement	Ghanaian app developers test mobile interfaces with users across different regions simultaneously

Design Phase	Traditional Methods	Digitally Transformed Methods	Benefits of Transformation	Ghanaian Examples
Production	• Mass manufacturing • High setup costs • Long lead times • One-size-fits-all products	• Digital fabrication • On-demand production • Mass customisation • Smaller batch capabilities	• Less waste • Customisation options • Faster market entry • Lower startup costs	Small clothing businesses using digital printing to create custom designs with lower investment
Distribution	• Physical shops • Limited geographic reach • Print catalogues • Word-of-mouth	• E-commerce platforms • Global market access • Digital marketing • Direct-to-consumer models	• Wider market reach • Lower distribution costs • Direct customer relationships • Better market data	Ghanaian artisans selling traditional crafts worldwide through online marketplaces
Feedback	• Customer complaint forms • Sales figures • Occasional surveys • Slow response to issues	• Real-time usage analytics • Social media monitoring • Online reviews • Continuous updates	• Faster problem identification • Ongoing improvements • Customer involvement • Data-driven decisions	Mobile money services improve features based on user feedback and usage patterns
Evolution	• New model every few years • Complete redesigns • Physical updates required • Product remains static	• Regular digital updates • Continuous improvement • Remote feature additions • Products evolve after purchase	• Longer product lifespan • Improved user satisfaction • Lower replacement costs • Adaptable to new needs	Radio stations create apps that add new features and content regularly through updates

Skills Needed for Digital Transformation

1. Technical Skills
    - Basic programming and digital tool literacy
    - Understanding of how digital systems work
    - Data analysis and interpretation
    - User experience (UX) design principles
2. Human Skills
    - Digital empathy - understanding different users' tech experiences
    - Cross-cultural awareness - designing for diverse digital users
    - Communication - explaining technical concepts clearly
    - Collaboration - working in digitally connected teams

The Future of Digital Transformation

Design is moving toward even more integration between physical and digital experiences:

- **Internet of Things:** More everyday objects, like cars and homes will connect to networks
- **Artificial Intelligence:** AI will help analyse data and generate design options
- **Extended Reality:** Virtual and augmented reality will transform how we experience designs
- **Biotechnology:** Digital tools will help design biological materials and systems
- **Voice and Gesture Interfaces:** Moving beyond screens to more natural interactions

Digital transformation is reshaping design work and possibilities. For Ghanaian learners, it opens new ways to solve local issues through global innovation. Success lies not in copying old methods digitally, but in reimagining with new tools. By blending technology with tradition, young designers can create solutions rooted in culture yet open to the world. Areas that are likely to benefit are:

1. **Inclusive Design:** This concept prioritises equity, enabling people with disabilities from marginalised communities to access and use products and services. It considers universal design principles, ensuring functionality for a broad range of people with disabilities.
2. **Circular Design:** Circular design involves creating products with a life cycle that promotes reuse, repair, and recycling.
3. **Generative and AI-Driven Design:** AI-powered generative design optimises processes, often producing innovative solutions that human designers might overlook.

4. **Digital Fabrication and 3-D Printing:** Digital fabrication alters traditional manufacturing by enabling on-demand production. This is particularly valuable for prototyping and producing custom parts at lower costs.
5. **Immersive Design (AR, VR, XR):** Immersive technologies transform how users interact with digital and physical environments. They can recreate historical settings, visualise future projects, or enable remote training.
6. **Internet of Things (IoT) and Smart Design:** Internet of Things (IoT) connects devices for data-driven solutions in sectors like healthcare, transportation, and energy. It integrates sensors and analytics for smarter, more responsive systems.
7. **Emotional and Experiential Design:** This focuses on creating memorable, emotionally engaging user experiences. It combines aesthetics, storytelling, and user interaction to leave a lasting impression.
8. **Multisensory Design:** Multisensory design integrates multiple sensory inputs to create richer, more immersive experiences. It's particularly effective in hospitality, retail, and education.

Mini Project for Weeks 8 and 9: Sustainable Design Solutions for Community Issues

Duration: 3 hours

Learning Outcome: learners create an annotated 2D design (either manual or digital) that applies emerging 21st-century design concepts to address a specific community issue related to the Sustainable Development Goals (SDGs).

Project Theme: "Annotated Designs for Sustainable Communities"

Create a manually or digitally annotated 2D design that:

Addresses a specific issue in your community connected to an SDG by applying at least one emerging design concept (traditional or cutting-edge) and adding clear annotations explaining key features and benefits

Materials Options

For Manual Annotated Designs

- Drawing paper or cardboard (A3 size recommended), Drawing tools (pencils, pens, markers), Rulers, compasses, templates, Colouring materials (coloured pencils, markers, watercolours), Sticky notes for annotations
- *Optional*: collage elements, textured materials, photographs

For Digital Annotated Designs:

- Computer-Aided Design (CAD) software
- Digital drawing applications

- Graphic design software
- Annotation tools
- Digital tablets if available
- Smartphones with design apps as alternative

Project Structure

Phase 1: Issue Identification & Research (30 minutes)

1. Identify a community issue connected to an SDG
2. Select an emerging design concept that could address this issue: i.e.
    - Human-centred Design
    - Systems Thinking
    - Biomimicry
    - Parametric Design
    - Artificial Intelligence & Machine Learning
    - Regenerative Design
    - Internet of Things (IoT)

Phase 2: Design Planning (30 minutes)

1. Create a simple design brief outlining:
    - The community issue and related SDG
    - Key features of your proposed solution
    - Who will benefit from your design
2. Sketch initial ideas and select the best approach
3. Plan your annotations - what aspects need explanation?

Phase 3: Creating the Annotated Design

Develop your annotated design using either manual or digital methods.

Your design must include

- Clear visual representation of your solution
- Title and brief description
- At least 5 annotations explaining:
    - How it addresses the community issue
    - How it applies the selected design concept

- Sustainable aspects of the design
- How community members would use or benefit from it
- Materials or technology required

Manual Design Tips

- Use pencil first, then add colour and final details
- Create a clean, organized layout
- Use lines connecting annotations to specific design elements
- Consider using a key or legend for symbols

Digital Design Tips

- Use layers to organize design elements and annotations
- Create a consistent style for annotation boxes
- Use zoom features to add detailed elements
- Save work frequently

Phase 4: Finalization and Sharing (30 minutes)

1. Review and refine annotations for clarity
2. Add final details and improvements
3. Display designs in a gallery format
4. Brief presentation explaining your design approach

Example Projects

1. **Rainwater Harvesting System**
   - **Issue:** Water scarcity (SDG 6)
   - **Design Concept:** Biomimicry
   - **Annotations:** Explain how the design mimics natural water collection, materials used, installation process, maintenance requirements, and community benefits
2. **Community Food Security Network**
   - **Issue:** Food access (SDG 2)
   - **Design Concept:** Systems Thinking
   - **Annotations:** Explain connections between garden locations, distribution system, seasonal planning, community participation, and economic benefits
3. **Smart Waste Sorting Station**
   - **Issue:** Waste management (SDG 11, 12)

- **Design Concept:** Internet of Things
- **Annotations:** Explain sensor technology, sorting mechanisms, data collection, community incentives, and environmental impact

Assessment Criteria

Criteria	Meeting Expectations	Exceeding Expectations
Design Solution	Creates a workable solution addressing a community issue	Creates an innovative solution with clear potential impact
Design Concept Application	Shows understanding of the selected design concept	Demonstrates sophisticated application of design concept adapted to local context
Annotation Quality	Includes clear annotations explaining basic features	Provides comprehensive annotations with thoughtful explanations of design decisions
Visual Communication	Creates a readable design with basic visual clarity	Creates a professional-looking design with effective use of visual elements

Differentiation Strategies

- Provide templates for those who need structural guidance
- Allow for verbal explanations to supplement written annotations
- Offer examples of annotated designs for reference
- Ensure digital tools have accessibility features enabled
- Provide translation support for key terminology

Learning Areas: (Formative Assessment)

1. Learners in groups plot major 21st-century design movements on an interactive timeline, in the colour-coding system for different design approaches (including accessible formats, like audio recordings of definitions) and key designers, innovations, and technological breakthroughs to

   i. design analysis worksheets to examine case studies of successful designs, identify concepts, and compare and contrast different applications of the same concept.

   ii. conduct community surveys in groups to identify design problems and categorise design problems using 21st-century design frameworks

   iii. develop solutions for community challenges and document the process to create infographic presentations for prototyping.

PEDAGOGICAL EXEMPLARS

- *Experiential Learning: Experiential Learning:* Learners to watch documentaries, videos and photos, or read magazines on emerging design concepts and objects in smart and sustainable cities and environments.

Make provision for learners with visual and hearing needs, as well as body types, for equity of access.

- *Problem-based Learning*: In groups, brainstorm to categorise 21st-century design gaps and needs in the community.
- *Project-based Learning; Group work/Collaborative Learning:* Working individually/ groups, generate a mind map for a poster presentation on 21st-century design solutions for selected design gaps and needs in the community.

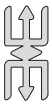
KEY ASSESSMENT LEVEL 3: HOMEWORK

1. Explain how human-centred design differs from user-centred design. Provide an example of each approach.
2. Analyse how sustainable design and smart city concepts could be integrated to create an effective solution.

PLC SESSION 9

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app

a. The key assessment for the week is ***homework***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the homework (NTS 3k-3q).

10 minutes	Content Exploration

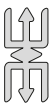
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	**Reflection**

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 10

Learning Indicator: *Appreciate and make judgements in debates on 21st-Century Design*

FOCAL AREA: EMERGING DESIGN CONCEPTS IN THE 21ST CENTURY

Introduction
Emerging Cutting-Edge 21st Century Design Concepts

Week 8 showed that 21st-century design introduces fresh ideas that challenge tradition and offer solutions to global problems. These focus on sustainability, innovation, and inclusion. In Ghana, where urban growth meets rich culture, such concepts can tackle local issues while aligning with global trends. Though some ideas are still emerging, they hold great promise for improving life and the planet. We can explore their principles and potential in Ghana.

1. Biomimicry and Bio-Inspired Design

Biomimicry uses nature to solve human problems. Designers learn from plants, animals, and ecosystems to create efficient, sustainable solutions—like termite mounds inspiring naturally cooled buildings. In Ghana, it could guide the design of cooler homes without air conditioning and water systems modelled on desert beetles to ease shortages in hot northern regions.

Key Concept Summary: Biomimicry means learning from nature to solve human problems. Designers observe how plants, animals and natural systems work and use similar ideas to create useful, efficient and sustainable designs.

Ghanaian/African Example: The Eastgate Centre in Harare, Zimbabwe, uses a ventilation system inspired by termite mounds. In Ghana, learners can explore how termite mounds might inspire naturally ventilated classrooms or houses that remain cool without depending heavily on air conditioning.

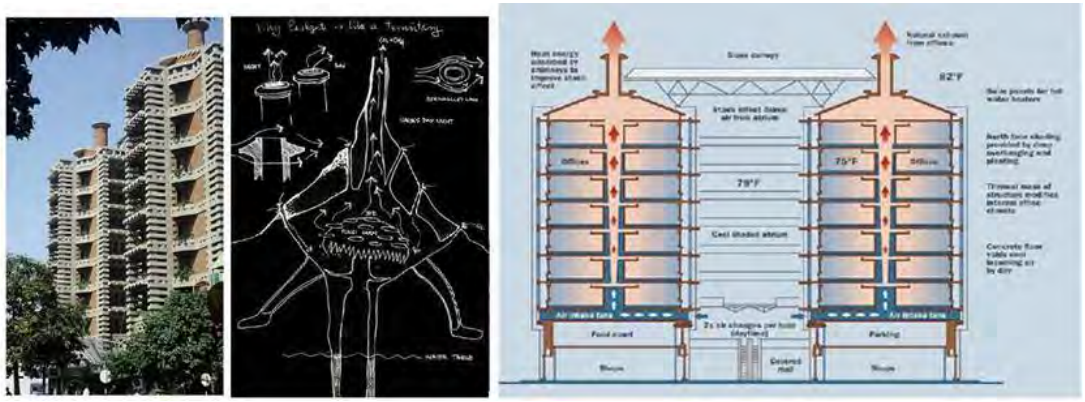


Figure 10.1: *Biomimicry Architecture, The Eastgate Centre, Harare, Zimbabwe,*
Source: *https://www.mickpearce.com/biomimicry.html*

Figure 10.1 shows a picture that explains the clever, nature-inspired design of the Eastgate Centre building. The top-left photo shows its unique exterior, which features textured concrete and large chimneys on the roof. Next to it, a hand-drawn sketch compares the building's ventilation system to that of a termite mound. The bottom half of the image is a detailed cross-section diagram illustrating how the building naturally cools itself. This diagram shows cool air being drawn in at the bottom of the building during the night. The building's concrete structure absorbs this coolness, acting like a natural air conditioner. During the hot day, warm air from the offices rises. This hot air is then vented out through the chimneys on the roof, a process known as the "stack effect." As the hot air escapes, it pulls in the cooler air stored in the building's structure, creating a continuous, natural cooling cycle.



Figure 10.2 (left): *Elytra Filament Pavilion, Victoria and Albert Museum, London, UK.*
Source: *https://www.itke.uni-stuttgart.de/research/built-projects/elytra-filament-pavilionvictoria-and-albert-museum-london-2016/*

Figure 10.2 shows a picture that illustrates a modern pavilion gracefully situated in the grand courtyard of a red-brick building at dusk. The main focus is a low, sprawling canopy shaped like a futuristic honeycomb, made of many interconnected hexagonal cells. Its frame appears as a dark, woven structure, and each cell is topped with a translucent panel that shimmers with soft, pearly colours. This lightweight canopy seems to float on thin stilts, extending over both a green lawn and a paved area with a shallow pool. Two people are seated inside one of the open cells, showing that it serves as a unique sheltered space for visitors. The warm glow from the building's windows and the soft twilight combine to create a tranquil and magical atmosphere.

2. Speculative and Critical Design

Speculative design explores future possibilities through "what if" questions, aiming to spark debate rather than solve current problems. In Ghana, it could imagine floating markets for a flooded Accra or future forms of communal farming. Though often seen as impractical, it helps rethink sustainable futures by focusing on ideas, not quick fixes.

Concept Summary: Speculative design uses "What if?" questions to imagine possible futures. Instead of immediately solving an existing problem, designers create ideas that encourage people to think about what the future could look like and the choices that may shape it.

Ghanaian/African Example: A Ghanaian designer might imagine floating markets in Accra that could continue operating during flooding. The design may not be built immediately, but it can encourage discussion about flooding, climate change and the future of cities.



Figure 10.3: *Georgia Lombardo. What Mumbai might look like in 2050. From Earth 2050*
Source: *https://medium.com/demagsign/8-spectacular-speculative-designs-44fb129eb4e2*

Figure 10.3 shows a digital illustration of a street in Mumbai at night, as imagined for the year 2050. The scene is brilliantly illuminated by a dazzling array of multi-coloured neon signs, holographic advertisements, and glowing digital billboards featuring epic Bollywood imagery. Pedestrians move along the street using futuristic personal transport, such as single-wheeled monocycles and glowing ring-shaped vehicles, while interacting with floating holographic interfaces. The architecture itself is a blend of the modern and the futuristic, with some buildings covered in lush "green walls" of vegetation, creating a fusion of nature and high-tech urbanism. Overlaid on the artwork are user interface elements from the "Earth 2050" website, including the artist's name, a "like" button, and a pop-up box with a speculative prediction about the future.

3. Parametric Design



Figure 10.4: *University of the Built Environment, UK. Parametric design. 2024. Museum of the Future, Dubai, UAE.*

Source: *UCEM https://www.ucem.ac.uk/whats-happening/articles/parametric-design/*

Figure 10.4 shows a picture that captures Dubai's striking Museum of the Future, an immense, hollow, asymmetrical ring-like structure that stands like a monumental piece of sculpture. Its smooth, gleaming silver-gold metallic surface is entirely covered with intricate Arabic calligraphy, which is not merely decorative but also serves as the building's windows. The image is bathed in the warm, golden light of a sunrise or sunset, with the sky's radiant glow beautifully framed by the large, elliptical void in the building's centre. In the background, the sharp, vertical lines of modern glass-and-steel skyscrapers rise into the sky, creating a powerful contrast with the museum's soft, flowing curves. The futuristic structure is set upon a gentle, green, landscaped hill planted with palm trees, which grounds the building and adds a touch of nature to the urban environment.



Figure 10.5: *Mario Cucinella Architects. One Airport Square / Accra, Ghana. 2015. Mineral concrete. Stain Concretal*

Source: *https://www.archdaily.com/777642/one-airport-square-mario-cucinella-architects.*

Figure 10.5 shows a photograph of a large, modern building with a remarkable and unique design. Its exterior is defined by a thick, concrete exoskeleton that forms a repeating pattern of large, open triangles. The building is constructed in multiple stacked layers, with each floor cantilevered outwards and supported by this geometric frame. The entire structure is made of a light, sandy-coloured concrete, which creates a strong contrast with the dark glass windows set deep behind the beams. At its base, the building is lifted high off the ground on massive, V-shaped columns, creating a sheltered open plaza on the reddish-brown pavement below.

Parametric design uses advanced software to create complex and adaptable designs by adjusting variables like size and material. This approach could transform architecture in Ghana by producing buildings with façades inspired by traditional kente patterns and designing homes that adapt to diverse climate zones.

Concept Summary: Parametric design uses digital tools and adjustable variables to create and modify complex designs. Designers can change measurements, shapes or materials and allow the design to respond to different requirements.

Ghanaian/African Example: One Airport Square in Accra demonstrates how geometric patterns can be used in modern architecture. Learners can explore how a traditional Ghanaian pattern, such as kente-inspired geometric forms, could be adapted to create a modern building façade.

4. Systemic Design

Systemic design focuses on big-picture, interconnected solutions by merging design and systems thinking. (Refer to Week 8). In Ghana, it could turn farm waste into compost or

link solar and hydro power for rural energy. Though powerful, it needs cross-sector collaboration, which can be hard to manage.

5. Open and Collaborative Design

Open design encourages shared ideas and global collaboration. In Ghana, it can support low-cost prosthetics and urban farming through shared 3D files. But success depends on improving digital skills and addressing ownership concerns.

Concept Summary: Open and collaborative design involves sharing ideas, knowledge, designs and resources so that different people can work together to develop solutions. It encourages participation and allows designs to be adapted to different communities and needs.

Ghanaian/African Example: Designers in Ghana could share digital 3D design files for low-cost prosthetic devices, allowing others to modify and produce them for people who need them. Learners can discuss how sharing design knowledge can help communities solve local problems.

6. Planet-Centred and Regenerative Design



Figure 10.6: *How to design a planet-centric way.*

Source: *Hybrid Heroes. https://hybridheroes.de/blog/2022-10-27-how-to-design-in-a-planet-centric-way/*

Figure 10.6 shows a cartoon-style illustration showing a large, smiling Earth (a globe) with arms touching Mexico and map of Africa. Two children are lying on top of the globe, facing each other with a pink-shaped heart above them. Below the globe, there are four diverse people: one person in a wheelchair, a person with a beard and a hat holding a plant, another person with a walking stick, and a person with long hair wearing a green sweater. To the left, inside a light blue circle, is a person with dark curly hair looking down at a phone or device. The overall colour scheme is light green and soft pastel tones.



Figure 10.7: *Melting Gondola.*

Source: *Smaply the blog. https://www.smaply.com/blog/planet-centered-design*

Figure 10.7 is a picture that showcases a striking and surreal sculpture set against a majestic, snow-covered mountain landscape. The central focus is a realistic, silver ski gondola, complete with skis and a snowboard in its racks, which appears to be melting into the ground. Instead of turning into a clear liquid, the gondola dissolves into a thick, glossy, blood-red substance that pools around its base, starkly contrasting with the pure white snow.



Figure 10.8: *Mural for "Urban Natural Assets: Rivers for Life project" Dar es Salaam, Tanzania*

Source: *Skumbuzo Salman, https://talkofthecities.iclei.org/the-power-of-art-communication-on-nature-and-climate-turns-uplifting/.*

Figure 10.8 shows an outdoor photograph of a man painting a mural on an outdoor wall. The mural features large green trees, a blue sky, and a prominent portrait of a smiling woman wearing a headscarf and a red patterned garment. The artist is standing on the left side, reaching up to paint the leaves of a tree. The scene is bright and sunny, with greenery

Regenerative design goes beyond sustainability to restore ecosystems. In Ghana, it could mean planting native trees or adding green spaces in cities. Challenges include securing funding and getting industries to prioritise the environment over quick profits.

Concept Summary: Planet-centred design considers the well-being of people, other living things and the environment. Regenerative design goes further than simply reducing environmental damage; it seeks to restore and improve natural systems.

Ghanaian/African Example: A Ghanaian community could use regenerative design by planting native trees, restoring degraded land and creating green spaces. Such actions can improve biodiversity, reduce heat and help restore the local environment.

7. Neuro aesthetic Design

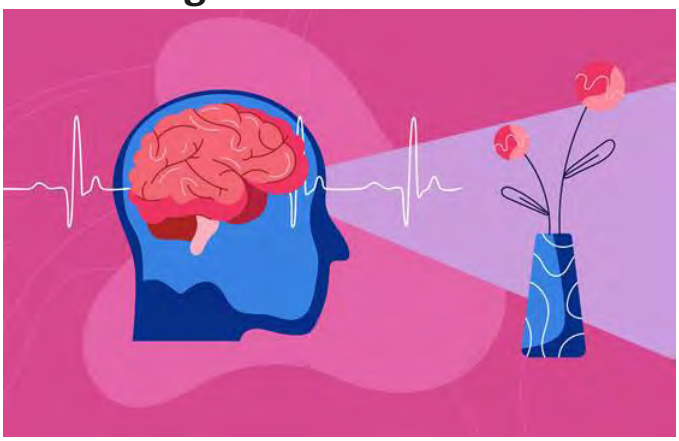


Figure 10.9: *Matcha Design. Designing for Neuroaesthetics: How Brain Science Influences Visual Perception. 2025*

Source: *Matcha Design https://matchadesign.com/blog/designing-for-neuroaesthetics-how-brain-science-influences-visual-perception/*

Figure 10.9 shows an abstract illustration of a human head in profile with a brain inside, facing a vase with flowers. The background is pink with wavy lines, and a white heartbeat line runs horizontally through the image, passing through both the head and the flowers. A beam of light or focus extends from the head toward the flowers, suggesting perception or attention



Figure 10.10: *Neuroaesthetic Interior Design for Mental Health, Cleveland Clinic*

Source: *proto.life https://proto.life/2021/10/neuroaesthetics-mental-health-facilities-of-the-future/*

Figure 10.10 shows a picture of a young child in blue clothing standing in front of a large, bright projection of a leafy green tree on a plain white wall. The child is reaching up with one hand, touching or almost touching the projected tree. The floor is shiny and reflective, and the setting looks neat and modern.

Neuroaesthetic design examines how the brain responds to visual and sensory elements, helping designers create spaces that evoke specific emotions. In Ghana, these types of design are applied in healthcare to reduce patient stress. However, this field needs more research and investment in local neuroscience.

Concept Summary: Neuroaesthetic design considers how the brain responds to visual and sensory experiences. Designers use elements such as colour, light, patterns, natural forms and spatial arrangement to create environments that may influence people's emotions, attention and sense of well-being.

Ghanaian/African Example: A healthcare facility in Ghana could use natural light, calming colours, plants and pleasant visual patterns in waiting areas to create a more comfortable environment for patients and visitors.

8. Humanity-Centred Design

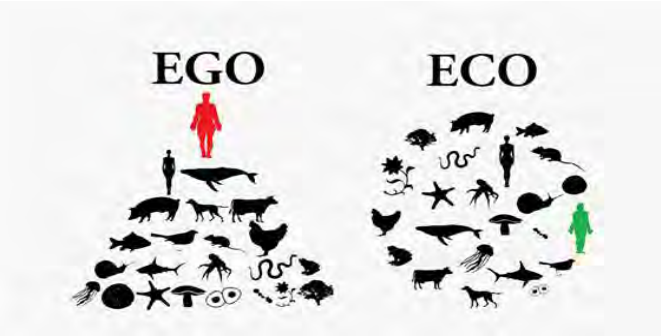


Figure 10.11: *Climate Change Campaign against Human-Centredness*

Figure 10.11 shows a diagram comparing "EGO" and "ECO" worldviews using animal and human silhouettes. On the left, under the word "EGO," there is a pyramid with a red human figure at the top, above various animals arranged in hierarchical layers below. On the right, under the word "ECO," the same animals and a green human figure are arranged in a circle, all at the same level, suggesting equality among species. The left red image [a human-centred perspective (ego)] contrasts with a green image [an ecological, balanced perspective (eco)].

Humanity-centred design focuses on people and the planet, not just user needs. In Ghana, it could support inclusive planning and tools that reflect local knowledge. The challenge is balancing varied interests with long-term goals.

Concept Summary: Humanity-centred design considers people's needs while also recognising the wider environment and society. It looks beyond designing only for an

individual user and considers communities, other living things and the long-term effects of design decisions.

Ghanaian/African Example: When planning a new community in Ghana, designers could provide accessible walkways, public spaces, shade trees, drainage systems and facilities for people with different abilities. This approach considers the needs of different people as well as the surrounding environment.

9. Future-Proof Design



Figure 10.12: *Is future-proofing both old and new buildings possible?*

Source: *Building Futures https://www.buildingfutures.org.uk/how-can-we-future-proof-both-new-and-existing-buildings/*

Figure 10.12 shows a picture of a man in business attire with a yellow construction helmet stands on the right side of the image, holding a walkie-talkie to his mouth. He is looking at a large, semi-transparent digital blueprint or hologram of a building complex that fills the left and centre of the image. The blueprint is made up of glowing white and blue lines, grids, and numbers, giving a futuristic and technological feel. The background is dark and cloudy, adding contrast to the bright digital elements.

Future-proof design creates flexible solutions for changing needs. In Ghana, this could mean modular homes for climate displacement or planning infrastructure for growth. Challenges include predicting needs and managing costs. Ideas like biomimicry and open-source tools show promise, but success depends on education, collaboration, and innovation.

Concept Summary: Future-proof design creates solutions that can adapt to changing needs, technologies, populations and environmental conditions. The aim is to make designs flexible enough to remain useful when circumstances change.

Ghanaian/African Example: A Ghanaian architect could design a modular school building that can be expanded as the number of learners increases. The building could also include spaces that can be changed for different uses and features that respond to changing climate conditions.

How 21st-Century Design Approaches Help Achieve the Sustainable Development Goals (SDGs)

1. Traditional Design Approaches

a. Human-Centred Design

SDG Connections: Poverty (1), Gender Equality (5), Reduced Inequalities (10) to create designs solutions by deeply understanding people's needs.

b. Systems Thinking

SDG Connections: Zero Hunger (2), Good Health (3), Clean Water (6). Maps out relationships between different factors to find effective intervention points for example: Agricultural programmes that connect water access, seed quality, and market access.

c. Biomimicry

SDG Connections: Clean Water (6), Sustainable Cities (11), Climate Action (13). Looking to nature for sustainable design solutions in Areas like water collection systems inspired by beetle shells that harvest moisture from the air.

d. Parametric Design

SDG Connections: Innovation (9), Sustainable Production (12), Life on Land (15). Using computer algorithms to optimise designs for efficiency such as building designs that maximise natural cooling while minimising material use.

2. Cutting-Edge Design Approaches

a. Artificial Intelligence & Machine Learning

SDG Connections: Zero Hunger (2), Good Health (3), Climate Action (13). Using computer systems that learn from data to make predictions such as Farmer line app that provides personalised farming advice based on local conditions.

b. Regenerative Design

SDG Connections: Zero Hunger (2), Climate Action (13), Life on Land (15). Creating solutions that restore damaged environments such as Agroforestry projects that produce food while rebuilding soil health.

c. Internet of Things (IoT)

SDG Connections: Clean Water (6), Good Health (3), Sustainable Cities (11). Using connected sensors to collect and share information such as Soil Moisture sensors to help cocoa farmers use water efficiently.

21st Century Design Concepts & the SDGs

Today's design must help meet the UN's 17 Sustainable Development Goals.

Here are key approaches with Ghanaian examples:

Concept	Link to SDGs	Ghanaian Example
Sustainability	SDG 12 (Responsible Production), SDG 13 (Climate Action)	Furniture made from recycled wood and bamboo.
Inclusive Design	SDG 10 (Reduced Inequalities)	School website with captions and simple menus.
Participatory (Co-Design)	SDG 11 (Sustainable Cities)	Community centre designed with local weavers.
Biomimicry	SDG 15 (Life on Land)	Building roofs inspired by termite mounds for cooling.
Generative Design	SDG 9 (Industry, Innovation)	Software that creates adinkra-based patterns.
Data-Driven Design	SDG 6 (Clean Water), SDG 3 (Good Health)	Water-use map refined by sensor data.
Service & Systems Design	SDG 8 (Decent Work), SDG 17 (Partnerships)	Hospital patient journey mapped end-to-end.
Ethical & Responsible Design	SDG 16 (Peace, Justice)	Fair-trade digital marketplace for artisans.
Resilient & Adaptive Design	SDG 11 (Resilient Infrastructure)	Flood-safe community hall with raised floor.
AI-Assisted Design	SDG 4 (Quality Education)	AI tool suggesting colour palettes from Ghanaian landscapes.
Augmented Collaboration	SDG 17 (Partnerships)	Ghanaian and international students co-design via video.

Learning Tasks

Learners work in groups to identify a problem in their school environment, then apply 21st-century design concepts to develop and test a potential solution through a condensed design competition.

Groups are to:

- Apply human-centred design principles to a real-world problem
- Practice iterative prototyping and testing
- Consider systems thinking when analysing problems
- Incorporate sustainable design considerations
- Explore how digital tools might enhance solutions

Materials Needed

- Paper, pencils, markers
- Cardboard, scissors, tape, glue
- Mobile phones (for research and documentation)
- Recycled materials for prototyping

Time Required

2 class periods (approximately 120 minutes each)

Assessment Criteria

Learners will be evaluated on:

1. **Human-centred approach:** Did they address real user needs?
2. **Systems thinking:** Did they consider broader connections?
3. **Iterative improvement:** Did they improve based on feedback?
4. **Sustainability:** Did they consider environmental aspects?
5. **Digital integration:** Did they identify relevant digital enhancements?
6. **Collaboration:** Did all team members contribute?

PEDAGOGICAL EXEMPLARS

- *Experiential Learning: Structuring Talk for Learning:* Experiential Learning: Structuring Talk for Learning: Watch documentaries, videos and photos, and or read magazines to initiate debates on emerging design concepts in smart and sustainable objects, cities and environment.
- *Problem-based Learning; Group Work/Collaborative Learning:* In convenient groups, investigate cutting-edge 21st-century design solutions for Sustainable Design Goals (SDGS) for selected design gaps and needs in the community.
- *Project-Based Learning/ Group Work/Collaborative Learning:* Use Computer Aided Design (CAD) to create solutions for selected design requirements and design gaps in the community for submission in Sustainable Development Goals (SDGS).

KEY ASSESSMENT

Level 4: Group Research Project

Identify a problem in their school environment, then apply 21st-century design concepts to develop and test a potential solution through a condensed design competition.

Groups are to:

- Apply human-centred design principles to a real-world problem
- Practice iterative prototyping and testing
- Consider systems thinking when analysing problems
- Incorporate sustainable design considerations
- Explore how digital tools might enhance solutions

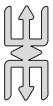
Teacher Notes

- Prepare by collecting some basic prototyping materials in advance
- Consider showing examples of simple prototypes to inspire students
- Time management is critical—use timers and give clear warnings
- Encourage students to keep solutions simple and focused
- If some teams finish early, have them create a poster explaining their design process

PLC SESSION 10

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app

a. The key assessment for the week is ***group research project***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the project (NTS 3k-3q).

10 minutes	Content Exploration

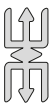
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	**Reflection**

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

Section 2 Review

The section introduced learners to 21st-century design concepts, including sustainable design, inclusive design, biomimicry, universal design and smart design. The content effectively demonstrated how design thinking evolved from purely aesthetic considerations to comprehensive problem-solving methodologies with real-world applications. The section presented a balanced theoretical understanding with practical application, guiding learners to analyse the interconnected nature of contemporary design approaches. Particularly commendable was the contextualisation within Ghana's specific challenges while maintaining global relevance, especially concerning Sustainable Development Goals. The pedagogical strategies employed included experiential site visits, problem-based challenges, and project-based activities culminating in tangible design solutions. These approaches accommodated various learning styles and abilities through thoughtful adaptations and assistive technologies. Assessment strategies were equally robust, progressing from Level 3 strategic reasoning

(analysing local design challenges) to Level 4 extended thinking (creating innovative cross-disciplinary solutions). The inclusion of peer critiques, stakeholder presentations and comprehensive portfolios provided multiple pathways for demonstrating mastery. The section particularly excelled in nurturing critical debate around crucial questions of technological appropriateness, cultural authenticity and equitable access—precisely the complex judgements tomorrow's designers must navigate when addressing Ghana's unique design challenges within a global context.

APPENDIX: MARKING SCHEMES FOR THE KEY ASSESSMENTS

WEEK 9

Criteria	Excellent (3–4 marks)	Very good (2–3 marks)	Satisfactory (1–2 mark)	Needs improvement (1 mark)
Definition and 4 characteristics of Human-centred Design	Define and describe 4 Characteristics	Define and describe 2 Characteristics	Define and describe 1 characteristic, or describe 2–3 Characteristics	Neither defines nor describes any Characteristics
Definition and 4 characteristics of User-centred Design	Define and describe 4 Characteristics	Define and describe 2 Characteristics	Define and describe 1 characteristic, or describe 2–3 Characteristics	Neither defines nor describes any Characteristics
3 key differences between Human-centred and User-centred Designs	Identify 3 key differences between Human-centred and User-centred Designs	Identify 2 key differences between Human-centred and User-centred Designs	Identify 1 key difference between Human-centred and User-centred Designs	Identify no key difference between Human-centred and User-centred Designs
3 examples of Human-centred Design	Identify 3 examples of Human-centred Design	Identify 2 examples of Human-centred Design	Identify 1 example of Human-centred Design	Identify no example of Human-centred Design
3 examples of User-centred Design	Identify 3 examples of Human-centred Design	Identify 2 examples of Human-centred Design	Identify 1 example of Human-centred Design	Identify no example of Human-centred Design

Total: $3 \times 5 = 15$ marks

Question 2

Criteria	Excellent (3–4 marks)	Very Good (2–3 marks)	Satisfactory (1–2 marks)	Needs Improvement (0–1 mark)
Understanding of Concepts	Clearly explains and smart cities (data, systems, infrastructure) with key principles.	Explains both concepts with accurate principles and some elements.	Basic understanding with some errors; may focus on one concept.	Poor or incorrect understanding may confuse key ideas.
Integration Analysis	Identifies 3 synergies and challenges, with clear integration points.	Shows 2 synergies with some integration detail.	Basic links between concepts; may treat them separately.	Little or no real integration; concepts listed with no link.
Solution Development	Proposes 3 strong, integrated solutions addressing real challenges with added value.	Gives 2 clear integrated solutions with good benefits.	Offers 1 partial solution; may favour one approach.	Weak or vague solution; little integration or relevance.
Strategic Reasoning	Considers implementation, stakeholders, resources, challenges, and long-term impact.	Covers some practical and stakeholder factors.	Focuses on benefits; limited view of systems or long-term thinking.	Lacks depth; ignores practical or systemic factors.
Examples & Evidence	Uses strong, relevant real or imagined examples showing integration.	Some relevant examples supporting integration.	Few or general examples with limited relevance.	Little or no useful examples; poor connection to analysis.

Total: 3– 4 × 5 = 15 – 20 mark

WEEK 10

21st century design competition assessment rubric

Criteria	Excellent (4)	Very Good (3)	Satisfactory (2)	Needs Improvement (1)
Human-Centred (3 marks)	Research clearly influenced solution. Directly addresses user needs with evidence.	Some research conducted. Solution generally addresses user needs.	Minimal research. Solution partially addresses needs.	No research. Solution disconnects from user needs.
Systems Thinking (3 marks)	Shows complex connections. Addresses root causes. Considers broader impacts.	Shows some connections. Addresses causes beyond symptoms.	Basic connections. Focuses on symptoms only.	Problem viewed in isolation. No connections shown.
Iteration (3 marks)	Significant improvements from feedback. Can explain changes. Solution clearly better.	Meaningful improvements made. Reasonable adjustments to functionality.	Minor improvements only. Limited response to feedback.	No improvements made. Feedback ignored.
Sustainability (3 marks)	Considers environmental, social, economic impacts. Sustainable materials. Long-term thinking.	Some sustainability elements. Some environmental consideration.	Used recycled materials only. Limited deeper thinking.	No sustainability considerations.
Digital Integration (2 marks)	Specific digital tools enhance solution meaningfully.	Reasonable digital elements would improve solution.	Vague mention of digital tools without clear purpose.	No digital considerations.
Teamwork (1 mark)	All members contributed equally. Built on each other's ideas.	Most members contributed. Generally balanced work.	Uneven participation. Some dominance or disengagement.	Poor collaboration. Unbalanced work.

Total: $3 \times 4 + 2 + 1 = 15$ marks

SECTION 3: ETHICAL ISSUES IN ART AND DESIGN

STRAND: AESTHETICS AND CRITICISM

Sub-Strand: The World Around Us

Learning Indicator: Appreciate and contribute to debates on material responsibility, and emerging advocacy issues in art.

Content Standard: Reflect, analyse, and contribute to social inclusion and environmental issues in art.

INTRODUCTION AND SECTION SUMMARY

This four-week course explores the relationship between ethics, responsibility, and technology in modern art and design. We start by examining the ethical challenges artists face today, focusing on human-centred issues and their responsibilities in a complicated world. Next, we discuss environmental aspects, such as material choices, sustainability, and the role of artists in tackling ecological problems. In the final weeks, we look at how technology influences artistic expression, moving beyond traditional 3D works to include time-based 4D and multisensory 5D art. Throughout the course, you'll learn how these themes challenge traditional ideas and redefine creative responsibilities. By the end, there will be the understanding of the need for artists and designers to balance creative expression with ethical considerations, environmental care, and technological awareness, all while recognising the societal impacts of their work. The learning indicators to be covered by the section are:

- **Week 11**

  Categorise ethical issues associated with art and design.

  Discuss human-centred ethical issues in art as well as artistic responsibilities.

- **Week 12:** Reflect on material responsibility, environment and emerging advocacy issues.
- **Week 13:** Identify and explain various technology-based art and design works
- **Week 14**

  Differentiate between 3D, 4D, and 5D art forms.

Analyse and articulate Crypto and Non-Fungible Tokens (NTFs) forms of art.

The Learning Indicators captured under the Introduction and summary, will be built directly on learning areas from Years 1 and 2. The mastery of design elements, visual communication, and basic analysis now supports more advanced work. Previously Learners identified and described design concepts, will now analyse their impact, evaluate their effectiveness, and make informed judgments about contemporary approaches. This progression from understanding to critical evaluation represents the natural development of the design thinking abilities.

Recap of Indicators

Year 1	Week 10: Explain various sensory perceptions. Week 11: Differentiate between sensory perception and cultural awareness. Week 12: Analyse and explain visuality, meaning-making, and art and design production in relation to art and design. Week 13: Explain how design concepts influence the design characteristics of objects and the design. Week 14: Differentiate between tradition, culture and worldviews in terms of design. Analyse and explain visuality, meaning-making, as well as design production in relation to art and design.
Year 2	Week 10: Identify and describe the origins of cultural objects in Ghana. Week 11: Research materials and modes of production of specific cultural objects Week 12: Analyse and explain social conditions as inspirations behind works of art and design. Week 13: Explain materials as the repository of cultural memory. Week 14: Discuss regional material as alternatives to privileged materials and for art. Analyse art medium and scale in art production.

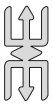
SUMMARY OF PEDAGOGICAL EXEMPLARS

The section covers project-based investigations, allowing small groups to research specific issues in Ghanaian art, focusing on local examples and their relevance to the community. Problem-based learning activities encourage learners to identify challenges related to environmental and material responsibility in their local areas, with an emphasis on Ghanaian contexts and solutions. Experiential learning is incorporated through virtual tours and practical technology exploration to help students understand digital art ethics. Visual organisation techniques such as mind mapping assist students in linking concepts across different art forms and technologies. These activities include inclusive content and strategies to ensure that all learners, regardless of their needs and backgrounds,

can participate. Teachers are encouraged to take note of the varying access to technology and prior knowledge of art concepts among students in Year 1 and Year 2, so they can provide adequate support while maintaining high expectations for all learners.

ASSESSMENT SUMMARY

This section focuses on assessing higher-order thinking skills suitable for final-year high school students, particularly emphasising Level 3 (Strategic Reasoning) and Level 4 (Extended Critical Thinking). At Level 3, learners will analyse ethical dilemmas in Ghanaian art through case studies, evaluate artists' approaches to human-centred ethics, investigate material responsibility in local art practices, and compare technological methods in contemporary Ghanaian art. Level 4 assessment involves learners creating ethical frameworks to address challenges in Ghanaian art, developing proposals for environmentally responsible art practices using local resources, critically evaluating competing ethical issues in controversial art, and integrating traditional Ghanaian knowledge with modern ethical approaches. Assessment methods include group presentations, case studies, research projects, and problem-solving tasks that apply ethical principles to real-life scenarios. Teachers should use clear marking criteria that focus on the depth of ethical reasoning rather than just artistic skills. When evaluating responses, it is important to consider varied cultural perspectives within Ghana. The assessment should balance written and verbal demonstrations of understanding and provide options for visual presentations to cater to different learning styles and levels of English proficiency among students.



Note

A variety of assessment modes should be implemented to evaluate learners' understanding and performance in the concepts covered in this section. It is essential for teachers to conduct these assessments regularly to track students' progress effectively. You are encouraged to administer the recommended assessments each week, carefully record the results, and submit them to the Student Assessment Portal (SAP) for documentation. The assessments are;

Indicators	DOK Level	Assessment Strategy and/or Mode
Categorise ethical issues associated with art and design.	4	Concept Mapping and Classification Exercise
Discuss human-centred ethical issues in art as well as artistic responsibilities.	4	Panel Discussions
Reflect on material responsibility, environment and emerging advocacy issues.	4	Reflective Journals with Visual Documentation

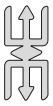
Indicators	DOK Level	Assessment Strategy and/or Mode
Identify and explain various technology-based art and design works	4	Digital Gallery Curation
Differentiate between 3D, 4D, and 5D art forms.	4	Project-Based Assessment
Analyse and articulate Crypto and Non-Fungible Tokens (NFTs) forms of art	4	Case Study

WEEK 11

Learning Indicators

1. *Categorise ethical issues associated with art and design*
2. *Discuss human-centred ethical issues in art as well as artistic responsibilities*

FOCAL AREA: ISSUES OF GENDER AND RACE; ENVIRONMENT; ANIMAL RIGHTS; EXPLOITATIONS; SOCIAL JUSTICE; AFFIRMATIVE ACTION; REPATRIATION AND REPARATION, ETC.



Note

- Set clear ground rules for respectful listening.
- Allow learners to share personal or community experiences safely.
- Focus discussion on the artwork, historical facts and different viewpoints.
- Redirect any personal attacks back to the content.

Ethical Issues in Art and Design

Art and design raise key ethical issues that shape creative work. Artists and designers must consider fairness, representation, and impact. This includes gender and racial equality, animal rights, environmental effects, cultural appropriation, and accessibility. Other concerns include fair pay, honesty in advertising, and responsible persuasion. By understanding these issues, learners can create meaningful work that avoids harm and benefits society.

1. Gender and Race Issues in Art and Design

Art and design have long reflected social inequalities in gender and race, shaping who creates, what is valued, and whose stories are told. For young Ghanaian artists, understanding these issues is key to navigating the creative world and developing critical voices for advocacy and change today.

Historical Exclusion and Representation

For centuries, museums and art books focused mostly on Western male artists, excluding women and non-Western creators. African artists like Kofi Antubam, Aina Onabolu, and Ibrahim El-Salahi gained little recognition during their lifetimes. Until the 1980s, traditional African art was often labelled "primitive craft," and modern African works were dismissed for lacking ethnic traits, delaying their acceptance.

Educational and Professional Barriers

Women and people of colour have long faced barriers in art education and careers. Western art schools mainly favoured men, with few women like Artemisia Gentileschi gaining notice, often through male relatives. In Ghana, social expectations still push women towards domestic roles over art. Female enrolment in art schools was limited, and design fields often excluded women through informal networks, holding back many talented artists.

Stereotyping and Cultural Exploitation

Mainstream art often misrepresents non-Western cultures through stereotypes or exoticism, distorting their true meaning. Western designers also frequently use African styles, like kente or adinkra, without credit or collaboration, overlooking their Ghanaian roots.

Traditional Gender Roles in Ghanaian Art

Traditionally in Ghana, arts like kente weaving, carving, and metalwork were male-dominated, while pottery, bead-making, and textiles were seen as women's work—often dismissed as domestic craft. Today, female artists such as Dorothy Amenuke, Theresah Ankomah, Betty Acquah, and others are gaining recognition, building on the legacy of pioneers like Felicia Abban, Theodosia Okoh, and Grace Kwami.

Way Forward

Addressing gender and racial inequality in art and design requires awareness, education and institutional change. By understanding these issues, artists can work toward creating a more inclusive creative environment one that values diverse perspectives, preserves cultural heritage and evaluates work based on quality rather than the creator's identity.

2. Animal Rights in Art and Design

Using animals in art raises important ethical questions. From ancient cave paintings to modern works by Picasso and Hirst, animals have appeared as subjects and materials. Young artists must ask: when does expression become exploitation? This challenges us to consider our duty to other living beings.

Forms of Animal Use in Creative Fields

Living or Dead Animals in Art

Some contemporary artists use live or dead animals in their work, claiming it creates impact. However, animals in galleries often face stress from noise, lights, and handling, raising concerns about their welfare.

Animal-Derived Materials

Traditional art used animal products like horsehair brushes, bone glue, insect pigments, and leather bindings. Though synthetic options exist today, some artists still prefer animal-based materials for their authenticity or quality.

Ghanaian Context

In Ghanaian tradition, animal imagery and materials hold cultural value, Adinkra symbols convey wisdom, and ceremonial items use leather, feathers, or bones. Today, ethical awareness and wildlife conservation raise concerns. With species like pangolins endangered, artists must weigh cultural respect against environmental responsibility.

Certain artistic practices deserve particular scrutiny:

1. **Unnecessary Stress or Harm**: Placing animals in stressful situations or environments solely for aesthetic purposes
2. **Misrepresentation**: Portraying animals in ways that diminish their intrinsic value or reinforce harmful stereotypes
3. **Exploitation for Shock Value**: Using animal suffering to create controversy or attention rather than meaningful discourse
4. **Cultural Appropriation**: Using animals or animal parts from other cultures without understanding their significance or proper protocols

3. Environmental Challenges and Issues

Art and design face environmental challenges due to the materials and processes used, requiring artists and designers to consider their impact on emissions and resource use. Sustainable practices, such as using recycled materials and reducing waste, can mitigate these issues. By prioritising eco-friendly materials and waste management, they can lower their carbon footprint and protect natural resources for future generations, promoting sustainability and setting an example for others.

Key Environmental Challenges

Toxic Materials

Waste Generation

Energy Consumption

Environmental Impact of Artworks

Responsible Artmaking

Climate Change Awareness

Sustainable Design in Art

Addressing Environmental Challenges in Art and Design

Adopting Sustainable Materials

Reducing Waste

Promoting Green Practices

Creating Awareness through Art

Encouraging Sustainable Design Principles

4. Social Justice in Art and Design

Social justice in art and design uses creativity to promote fairness, equality, and inclusion. It highlights injustice, gives voice to the marginalised, and encourages positive change. By challenging stereotypes and celebrating diversity, it inspires action and sparks dialogue. Artists can address inequality, build empathy, and help shape a more inclusive and compassionate society.

Key Social Justice Issues in Art and Design

a. Representation and Inclusion

Art and design often exclude or misrepresent marginalised groups like women, people of colour, and individuals with disabilities, limiting diversity and perpetuating stereotypes.

- *Examples*: Women artists like Artemisia Gentileschi and Ama Ata Aidoo were overlooked for centuries, while their male peers received recognition.

b. Cultural Appropriation

Using elements from another culture without understanding or respecting its context is a significant issue.

- *Example*: Western fashion brands have used kente patterns without crediting Ghanaian creators, disrespecting the cultural significance of this iconic fabric.

c. Access to Opportunities

Social justice also involves providing equal opportunities for all, regardless of background Economic inequality and systemic discrimination often hinder talented individuals from marginalized communities from accessing education, funding, or exhibition spaces.

- *Examples*: Artists from rural areas in Ghana often lack access to the resources and networks available in urban centres, limiting their ability to share their work.

d. Art as Advocac

Art serves as a potent tool for activism, raising awareness about social issues like human rights, gender equality, and poverty, thereby motivating societal change and addressing injustices.

- *Example*: In Ghana, art exhibitions by Kofi Adjei focused on child labour in cocoa farming helped to draw attention to this critical issue. Art can raise awareness and inspire action on social justice issues.

1. Ethical Practices

Designers should respectfully collaborate with communities when using cultural elements, including sharing profits and credit, to ensure fair representation and justice.

- **Example**: Designer Stella McCartney integrates sustainable and ethical practices into her fashion lines, often collaborating with local artisans.

2. Art for Change

Artists can focus on themes in social justice issues, using their work to educate audiences and inspire change.

- Example: Ai Weiwei, a Chinese artist, uses drawings, installations and films to discuss human rights and freedom of expression.

3. Exploitation

Labour Exploitation

Art and design industries often rely on underpaid workers, especially in production-intensive sectors like fashion, crafts, and construct

Exploitation in the Digital Age

The rise of digital platforms has introduced new forms of exploitation, including the unauthorised use of artists' work online and unfair terms in freelancing platforms.

Environmental Exploitation

The extraction of natural resources for art materials, such as rare pigments, stones, metals, or timber, often harms ecosystems.

4. Affirmative Action in Art and Design

Affirmative action in art and design refers to efforts to increase opportunities for groups that have been historically excluded, such as women, people of colour, and individuals with disabilities.

Examples of Affirmative Action in Art and Design

Education

- Scholarships and mentorships are offered to help underrepresented groups gain skills and access opportunities.

Exhibitions and Projects

- Special events and exhibitions feature the work of artists from marginalised communities.

Workplace Support

- Creative companies focus on hiring diverse teams and creating equal opportunities.

Funding

- Grants and awards are given to help artists from disadvantaged backgrounds succeed.

5. Repatriation and Reparation in Art and Design

Important Distinction

Legal – What the law and international conventions (UNESCO 1970, UNIDROIT 1995) require.

Ethical– What is fair and just, even if not yet required by law.

Cultural– Respect for traditional ownership, spiritual meaning and community protocols.

Always consider all three when discussing ownership, appropriation or repatriation.

Repatriation means returning art objects and cultural treasures to the countries or communities they originally came from, especially when they were taken unfairly during colonial times.

Reparation means making up for past wrongs by saying sorry, paying compensation, or taking other actions to fix historical injustices related to cultural objects.

How Artwork Was Taken

During colonial times (roughly 1500-1960), European countries took many treasures from Africa, Asia and other places they controlled. They took these items through:

- Military attacks and raids
- Expeditions claiming to be scientific
- Unfair trades where local people had little choice
- Purchases made when communities were under pressure

Many famous museums in Europe and America got their collections this way. At the time, they claimed they were "saving" these objects or making them available to "civilised" people.

Important African Examples

Benin Bronzes (Nigeria)

In 1897, British soldiers attacked the Kingdom of Benin (now part of Nigeria) and stole thousands of beautiful bronze artworks from the royal palace. These detailed metal plaques and sculptures were masterpieces of African art. Recently, museums in Germany, America and Britain have started returning these treasures. In 2022, Germany agreed to give back over 1,100 Benin Bronzes.

Asante Treasures (Ghana)

British forces took many golden items belonging to the Asantehene during wars in 1874 and 1896. These included:

- A gold trophy head now in London's Wallace Collection
- Royal gold ornaments in the British Museum
- The sacred Gold Crown they took after defeating Asantehene Agyeman Prempeh I

In 2023, some British museums including the Victoria and Albert Mumsum, agreed to loan some Asante gold items to the original owners, the Asantehene and Manhyia Palace for an exhibition (but not permanently return). The exhibition took place in 2024, marking the return of Agyeman Prempeh I from Seychelles after 26 years in exile, and 150 years commemoration of the looting in the "Sagrenti War". Many people think loans are not enough and want the treasures back permanently.

Other countries whose artefacts were also looted include: Ethiopia (Abyssinian Treasures from Magdala), Parthenon/Elgin Marbles (Greece) and the Maori and Hawaiian Human remains to mention just a few.

The Process of Getting Items Back

Proving Ownership

To reclaim cultural objects, countries need to show:

- Where the items came from
- How they were taken
- Why they are important to the local culture

International Agreements

Several worldwide agreements now try to protect cultural property, but most do not cover items taken during colonial times, which creates problems.

They include:

- 1970 UNESCO Convention on Cultural Property
- 1995 UNIDROIT Convention
- 2007 UN Declaration on the Rights of Indigenous Peoples

Beyond Just Returning Objects

True reparation includes more than just giving back physical items:

Digital Copies

Some museums create digital copies of objects they will not return.

Training and Support

Some countries that took cultural treasures now help train museum workers in countries seeking returns and support building proper facilities to house returned items.

Working Together

Museums and communities sometimes create exhibitions together, ensuring cultural objects are presented respectfully.

Ethical Considerations:

Today's artists and designers should:

- Check where materials and ideas come from
- Consider power imbalances when using designs from other cultures
- Give proper credit and payment when using traditional designs

Why countries want their treasures back:

- Items have cultural and spiritual importance
- The way they were taken was unfair
- Every culture has the right to its own heritage
- Return of items acknowledges past wrongs
    - Returned items afford present generation to learn about their past

Mini Project for week 10–12: Material Ethics in Artistic Advocacy

Duration: 3 hours

Ability to Create a 2D artwork that addresses environmental or material responsibility issues in the community, demonstrating ethical material choices in both concept and execution.

Project Brief, Theme: "Material Matters: Art for Environmental Advocacy"

Create a 2D artwork that:

- Addresses a specific environmental or material responsibility issue in your community
- Uses materials that align with your ethical message (sustainable, repurposed, locally sourced)
- Demonstrates clear connection between your chosen materials and your concept

Materials Focus

This project emphasizes the relationship between your materials and your message. Low-resource practical option (recommended for all schools):

Create the artwork using only materials collected from the school compound or local market waste (plastic sachets, cardboard, bottle tops, leaves, fabric scraps, etc.). The materials themselves must form part of the environmental message.

Sustainable Material Options

- Recycled paper, cardboard, and packaging
- Repurposed textiles and fabric scraps
- Natural materials (leaves, seeds, plant fibres)
- Discarded items from the community
- Digital tools (for zero-waste creation option)

Material Ethics to Consider

- Source: Where do your materials come from?
- Impact: What environmental footprint do they have?
- Message: How do your materials reinforce your concept?

Project Structure

Phase 1: Issue & Material Exploration

1. In your groups, identify environmental issues in your community and available materials
2. Select one issue to focus on and gather materials that connect to this issue
3. Create a quick material ethics plan (what materials you'll use and why)

Phase 2: Artwork Creation

Create a 2D artwork using selected materials, focusing on the relationship between concept and material.

Suggested Approaches

1. **Material Transformation**
   - Transform problematic materials into something beautiful
   - Example: Creating art from plastic pollution
2. **Material Contrast**
   - Juxtapose sustainable and unsustainable materials
   - Example: Contrasting natural materials with synthetic ones
3. **Material Documentation**
   - Create a visual record of environmental conditions using local materials
   - Example: Using soil, water samples, or plant materials to document pollution
4. **Material Advocacy**
   - Design a visual call to action about material responsibility
   - Example: Creating an informational piece about waste reduction

Phase 3: Sharing

1. Display artworks together
2. Quick gallery walk to view others' approaches
3. Brief verbal sharing of material choices and environmental message (optional)

Example Projects

1. **"Plastic Journey" Collage**
   - **Issue:** Plastic pollution
   - **Materials:** Collected plastic waste, paper
   - **Approach:** Collage showing plastic impact on local environment
2. **"Forest Memory" Mixed Media**
   - **Issue:** Deforestation
   - **Materials:** Fallen leaves, branches, earth pigments
   - **Approach:** Visual representation of forest loss
3. **"Consumption Map"**
   - **Issue:** Excessive waste

- **Materials:** Packaging waste from the community
- **Approach:** Arranged packaging creating a community map

4. **"Water Stories" Digital Work**
   - **Issue:** Water pollution
   - **Materials:** Digital photography, documentation
   - **Approach:** Digital collage of water issues

Assessment Criteria

Criteria	Meeting Expectations	Exceeding Expectations
Material Ethics	Uses materials with awareness of environmental impact	Materials directly reinforce the concept
Environmental Issue	Addresses a recognizable environmental issue	Provides insight on a specific local challenge
Concept–Material Connection	Shows basic connection between concept and materials	Creates powerful integration of concept and materials
Technical Execution	Creates a complete artwork using materials effectively	Shows innovative use of materials with skill

Differentiation Strategies

- Provide pre-collected material options
- Allow for collaborative work where beneficial
- Offer visual examples of techniques
- Ensure workspaces accommodate different physical needs
- Allow for process-based assessment for those who need more time

Learning Task

Create a visual mind map that categorises at least five ethical issues in art and design, with examples of each category. Include both historical and contemporary examples from Ghanaian and international contexts.

PEDAGOGICAL EXEMPLARS

- *Initiating Talk for Learning*: In a class discussion, identify and document ethical issues associated with art and design. Examples are issues of gender and race; environment; animal rights; exploitation; social justice; affirmative action; repatriation and reparation, etc.

- *Managing Talk for Learning; Group Work/Collaborative Learning*: In mixed groups, use tables and charts to categorise ethical issues in art and design for a poster presentation.
- *Problem-based Learning; Group work/Collaborative Learning*: In smaller groups, investigate selected categories of ethical issues in art and design for presentation in class.

KEY ASSESSMENT

Level 4: Concept Mapping and Classification Exercise

What ethical concerns arise around cultural appropriation in contemporary art and design?

FOCAL AREA 2: HUMAN-CENTRED ETHICAL ISSUES IN ART

1. Cultural appropriation, controversial content, and reproduction

In recent times, art and design face ethical issues like cultural appropriation, provocative imagery, and reproduction rights. Using elements from marginalised cultures without understanding or permission, such as fashion designers using Kente patterns without credit, can be harmful and disrespectful. True cultural exchange, based on collaboration and respect, encourages dialogue. Artists must consider the impact of their work and how it may be viewed by different communities.

HUMAN-CENTRED ETHICAL ISSUES IN ART AND DESIGN

Introduction

Human-centred ethical issues in art and design focus on the impact of creative work on real people, including those represented in art and those using designed products and spaces. Key concerns include human dignity, representation, consent, accessibility, and social impact. Artists and designers must consider these ethical implications to respect individuals' rights and create inclusive, accessible work that positively contributes to society.

Representation and Dignity

Key Ethical Concerns

- How people are portrayed in visual media is one example of this, as is the controversy surrounding the representation of marginalised groups (like pygmies and little people) in art and design, where common and harmful stereotypes reinforce prejudice and inequality.

Consent and Privacy

Key Ethical Concerns

- Whether subjects have given informed permission to be depicted
- How private information or images are used in public artwork
- Digital rights and image ownership

Inclusivity and Accessibility

Key Ethical Concerns

- Whether designed products and spaces work for people of all abilities

- How art and design either include or exclude certain groups
- The responsibility to consider diverse human needs

Examples

- Designing public buildings with wheelchair access and appropriate facilities
- Creating visual materials that also work for colour-blind and sight-impaired users
- Developing product instructions that people with different literacy levels can understand

Cultural Sensitivity

Key Ethical Concerns

- Respecting cultural practices and beliefs in artistic representation
- Avoiding appropriation while allowing cultural exchange
- Understanding the historical context of visual symbols

Social Impact and Responsibility

Key Ethical Concerns

- How design influences human behaviour and well-being
- The environmental impact of design choices on communities
- Whether creative work contributes positively to society

Exploitation and Fair Compensation

Key Ethical Concerns

- Whether all creative contributors are properly credited and compensated
- Power dynamics in the production of art and design on gender and minority groups
- Working conditions for those making designed products

Psychological Impact

Key Ethical Concerns

- How visual environments affect mental health
- The potential for design to manipulate or mislead
- Responsibility for the emotional effects of creative work

What Are Artistic Responsibilities?

Artists and designers have special responsibilities because their work influences how people think, feel, and behave. These responsibilities extend beyond simply creating beautiful or interesting work they involve moral commitments to subjects, viewers, clients, and society.

Artistic responsibilities include Truth and Integrity

1. Honesty in Representation

   Artists and designers have a responsibility to represent subjects truthfully, always. This does not mean art cannot be imaginative, but it should not deliberately mislead viewers about important matters. For example a graphic designer creating health information posters has a responsibility to ensure medical facts are accurate, as incorrect information could harm people.

2. Authenticity

   Artists should create work that reflects their genuine vision rather than merely copying others or following trends. This includes acknowledging influences and avoiding plagiarism.

   For instance, an artist drawing inspiration from traditional Sirigu motifs should develop their own interpretation rather than directly copying existing designs without acknowledgement.

Responsibility to Subjects

Dignity and Consent

When depicting real people, artists have a responsibility to:

- Obtain proper permission when necessary.
- Preserve subjects' dignity.
- Consider how representation might affect subjects' lives.

Example: A photographer working in Ghanaian markets should ask permission before taking close-up portraits of vendors and consider how the images might affect those portrayed.

Fair Compensation

Artists who collaborate with others or use others' skills should ensure fair payment and recognition. A designer working with traditional craftspeople to create products should pay fair wages and credit their contributions rather than exploiting their skills.

Responsibility to Society

- **Social Impact**

  Artists should consider the broader effects their work may have on society, including

  - whether it promotes harmful stereotypes
  - its psychological impact on vulnerable viewers
  - its contribution to public discourse

- **Cultural Representation**

  Artists have a responsibility to represent cultures respectfully and accurately, especially when working with traditions not their own. An artist creating work about various Ghanaian ethnic traditions should research properly and consult with community members rather than relying on assumptions.

Professional Responsibilities

Quality and Craftsmanship: Artists have a responsibility to master their craft and maintain high standards in their work, especially when others are paying for it. A graphic designer creating a logo for a small business should deliver professional-quality work that meets industry standards, not just something quick and easy.

Meeting Commitments: Professional artists must fulfil promises to clients, galleries, and collaborators regarding deadlines, specifications, and deliverables. For instance, An artist commissioned to create a mural for a school must complete the work as agreed and on schedule, as others are depending on them.

Environmental Responsibilities

Sustainable Practices: Artists should consider the environmental impact of their materials and processes and seek sustainable alternatives when possible.

Waste Management: Proper disposal of art materials is essential, as many contain chemicals harmful to the

Accessibility Responsibilities

Inclusive Design

Designers should create products, spaces, and communications that can be used by people with different abilities. For example, a website designer should ensure their sites work with screen readers for visually impaired users and have sufficient contrast for those with visual processing differences.

Balancing Artistic Freedom and Responsibility

Artists need freedom to express themselves, but this freedom comes with responsibilities. Finding this balance involves:

- Considering potential consequences without letting fear hinder creativity and risk-taking
- Distinguishing between challenging viewers (which can be valuable) and harming them
- Recognising when artistic choices might have serious ethical implications

In the case of an artist creating work about political issues in Ghana has the freedom to express criticism and the responsibility to base that criticism on facts rather than deliberate misinformation.

Learning Tasks

1. What responsibilities do artists have toward the subjects they depict in their work?
2. How might artworks impact human dignity, and what ethical considerations should artists keep in mind?
3. What ethical responsibilities do artists have toward their audiences, particularly regarding potentially disturbing or traumatic content?

PEDAGOGICAL EXEMPLARS

1. Initiating Talk for Learning: Identify and record human-centred ethical issues and artistic responsibilities in art and design. Examples: race/ethnicity, gender, disability, economic and cultural barriers, minority groups, child and human exploitation.
2. Problem-based Learning; Group work/Collaborative Learning: In convenient groups, investigate human-centred ethical causes for art in the community.
3. Project-based Learning; Group work/Collaborative Learning: In convenient groups, categorise and discuss human-centred ethical issues for art in the community.

   Ensure that respect and individual views and associations become ethical underpinnings for the discussions

KEY ASSESSMENT

Level 4: Concept Mapping and Classification Exercise

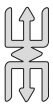
1. What responsibilities do artists have toward the subjects they depict in their work?

2. How might artworks impact human dignity, and what ethical considerations should artists keep in mind?

PLC SESSION 11

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***concept mapping and classification exercise***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the exercise (NTS 3k-3q).

10 minutes	Content Exploration

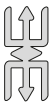
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

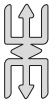
c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 12

Learning Indicator: *Reflect on material responsibility, environment and emerging advocacy issues*

FOCAL AREAS:

1. **OWNERSHIP AND REPARATION**
2. **ENVIRONMENTAL ISSUES, MATERIAL RESPONSIBILITY, EXCESSIVE CONSUMPTION AND OTHER ISSUES IN THE COMMUNITY**



Note

- Set clear ground rules for respectful listening.
- Allow learners to share personal or community experiences safely.
- Focus discussion on the artwork, historical facts and different viewpoints.
- Redirect any personal attacks back to the content.

OWNERSHIP IN ART AND DESIGN

Ownership in art and design is more than just having a piece. It includes legal rights, emotional ties, and cultural meaning. Important factors are authenticity, copyright, and ethics. Ownership reflects the connections between artists, collectors, and society. By understanding this concept, we can protect creative work and respect the rights of others, helping artists and designers operate ethically in the art world.

Legal Forms of Ownership

Copyright

Copyright automatically protects original artistic works when they are created. In Ghana, copyright lasts for the creator's lifetime plus 70 years. This gives the owner exclusive rights to reproduce, display, modify, and sell the work.

Design Rights

These protect the appearance of commercial products. Unlike copyright, design rights usually require registration with authorities.

Trademarks

These protect distinctive signs, logos, and symbols used to identify products or services. Many graphic designers create work that becomes trademarked.

Physical and Intellectual Ownership

Physical Ownership

When someone buys an artwork, they own the physical object but not necessarily the right to:

- Reproduce it (make copies).
- Create derivative works based on it.
- Display it publicly for commercial purposes.
- Claim they created it.

Intellectual Ownership

The creator retains intellectual property rights even after selling the physical artwork, unless specifically transferred through a contract.

Traditional and Cultural Ownership

Communal Ownership

Many traditional Ghanaian art forms (Kente patterns, adinkra symbols, traditional drum rhythms) belong collectively to cultural groups rather than individuals.

Cultural Heritage

Some designs are considered national cultural heritage, with ownership rights protected by the state rather than individuals or communities.

Custodianship

Elders or master craftspeople may be recognised as "owners" in the sense of being cultural custodians responsible for preserving techniques and patterns.

Rights of Ownership

Moral Rights

Moral rights are non-economic rights that protect the creator's connection to their work:

1. **Attribution Right:** The right to be identified as the creator of your work
2. **Integrity Right:** The right to object to distortion or modification that would damage your reputation
3. **Disclosure Right:** The right to decide when and how your work is first published. In Ghana, moral rights cannot be sold or transferred and last indefinitely.

Other Forms of Ownership

Collective and Collaborative Ownership

1. **Joint Ownership:** When multiple people create a work together, they may share ownership rights.
2. **Work-for-Hire:** Designs created by employees during their job typically belong to the employer, not the individual designer.
3. **Commissioned Work:** When someone pays you to create art specifically for them, ownership rights depend on your agreement these should always be clear in writing.

Digital Work Ownership and Challenges

- Once artwork is shared online, controlling its use becomes difficult, though legal rights remain.
- **NFTs (Non-Fungible Tokens)**

  These digital certificates attempt to establish verifiable ownership of digital artworks through blockchain technology.
- **Creative Commons**

  A licensing system allows creators to specify how their work may be used while maintaining some rights (allows for modification to the original form, provided right attribution in done).

Reparation in Art and Design (Refer to Week 11)

Reparation refers to efforts to address and correct historical wrongs, often through compensation or restoration. In art and design, it focuses on recognising and repairing harm caused by colonialism, exploitation, and cultural appropriation to promote justice and cultural pride, helping to restore dignity to affected communities.

Key words in reparation include:

- **Cultural Restitution**: Returning stolen artefacts or artworks to their countries of origin. For example, the return of the Benin Bronzes or the Ghanaian Ashanti gold and ceremonial artefacts taken during colonial rule in 2024 for exhibitions is a form of reparation.
- **Financial Compensation**: Providing funds to communities or nations whose cultural heritage was exploited. An example is Japan paying compensation to 49 countries from 1952 to 1977 for its part in World War II.
- **Acknowledgement and Apologies**: Recognising the harm caused by the exploitation of marginalised groups. Institutions publicly acknowledging their role in acquiring artworks unethically. For instance, in December 2022, the Dutch prime minister

apologised for the country's role in slavery and pledged €200 million for awareness and engagement. The country plans a commemoration of slavery history in July 2023.

Environmental Issues in Art and Design

When producing art and design, it is essential to consider the following environmental factors to reduce harm. These include:

- **Toxic Materials**

  Many traditional art supplies, such as paints, solvents, and adhesives, contain harmful chemicals. For example, lead-based paints can contaminate soil and water if not disposed of responsibly.

- **Waste Generation**

  Art production often creates waste, including leftover paints, paper, and discarded materials. Improper disposal of these items can lead to environmental pollution.

- **Energy Use**

  Studios, galleries, and workshops consume electricity for lighting, heating and cooling, and tools. This contributes to greenhouse gas emissions and environmental degradation.

- **Impact of Outdoor Artworks**

  Outdoor sculptures and murals may release harmful substances into the environment. For example, rainwater runoff from certain materials and pigments can pollute nearby water sources.

- **Climate Change Awareness**

  Artists and designers are increasingly using their work to raise awareness about global warming and environmental issues. Creative expressions can inspire action and educate communities about the need for sustainable practices.

Material Responsibility

Using materials responsibly is vital for reducing harm to the environment and ensuring long-term sustainability.

1. **Sustainable Materials:** Use natural or recycled materials to minimise environmental damage. An example is to employ recycled metal sculptures or natural dyes in textiles.
2. **Reducing Waste:** Reuse and recycle materials during the creative process, like turning old paper or fabric scraps into new artwork or using old moulds as fillers for casting.

3. **Eco-Friendly Practices:** Use low-energy tools and processes and avoid single-use materials. For example, an artist could create a sculpture using recycled metal from discarded machine parts, reducing the need for new materials to minimise waste.

Excessive Consumption in Art and Design

Excessive consumption means using more resources than necessary, which can lead to waste and environmental degradation. Excessive consumption in art and design may be caused by

- Overproduction
- Short-Lived Trends
- Impact on the Community

Issues in the Community

1. **Access to Resources:** Limited access to sustainable materials can hinder artists in developing countries, such as those in rural Ghana.
2. **Loss of Traditional Practices:** Over-reliance on modern materials and methods can overshadow traditional techniques, leading to cultural loss.
3. **Community Awareness:** Many people are unaware of how art and design choices affect the environment. Artists and designers have a role in educating the public about sustainability.

Solutions

1. **Education:** Teach sustainable art and design practices in schools and workshops.
2. **Local Action:** Encourage communities to use local, renewable resources in art and design.
3. **Advocacy:** Promote policies that support sustainable and responsible practices.

Learning Task

Create a research-based visual presentation or essay that examines the environmental impact of a specific art medium or design practice, analysing current approaches to material responsibility and proposing more sustainable alternatives.

Research Presentation or Essay Question

Analyse the environmental impact of three art or design materials commonly used in Ghana. For each material,

a. investigate lifecycle environmental implications from sourcing/production through use to disposal/degradation,

b. critically evaluate existing initiatives by Ghanaian artists and designers to address these environmental concerns, assessing their effectiveness, scalability, and cultural appropriateness,

c. develop an original proposal for a community-based initiative that would promote material responsibility in art education and practice in Ghana, with traditional ecological knowledge alongside contemporary sustainable approaches.

PEDAGOGICAL EXEMPLARS

1. *Problem-based Learning/ Building on What Others Say*: Brainstorm and record environmental issues, material responsibility and other issues that need to be tackled for change in the community.

   Examples: Alternative materials (for fuel, wood, construction, etc), pollution and environmental protection, animal rights and protection, responsible consumption, etc.

2. *Group work/Collaborative Learning:* In small groups investigate environmental issues, material responsibility, excessive consumption and other issues in the community for class discussion.

3. *Project-based Learning:* In mixed-ability groups, analyse selected environmental issues, material responsibility, excessive consumptions and other issues in the community as types of ethical causes for artistic advocacy.

4. *Exhibitions, fares and debates:* Organize art fares and public debates on art and artifacts to entertain and educate the public on some specific issues.

KEY ASSESSMENT: PRACTICE PAPER 1

Analyse the environmental impact of three art or design materials commonly used in Ghana. For each material,

1. investigate lifecycle environmental implications from sourcing/production through use to disposal/degradation,
2. critically evaluate existing initiatives by Ghanaian artists and designers to address these environmental concerns, assessing their effectiveness, scalability, and cultural appropriateness,
3. develop an original proposal for a community-based initiative that would promote material responsibility in art education and practice in Ghana, with traditional ecological knowledge alongside contemporary sustainable approaches.

Hint

*Conduct **Practice Paper 1**. It should cover the contents taught from Year 1 to 3. Refer to the **Table of Specification and Structure of the Paper** at the end of this section. Learners' papers should be marked immediately and scores entered into the STP.*

SUGGESTED STRUCTURE OF THE PRACTICE PAPER

The subject will consist of three (3) papers.

Paper 1: It will consist of forty (40) multiple choice questions to be answered within 50 minutes for 40 marks.

Paper 2: It will consist of three essay-type questions and two test of practical questions. Candidates are to answer two out of the essay-type questions and one out of the test of practical test. In all candidates will be required to answer three (3) questions out of five (5) within 1 hour 30 minutes for 60 marks.

Paper 3: It will comprise two sections (3A and 3B). 3A is on Drawing Composition and Relation of forms and 3B is on Computer Aided Design (CAD). Candidates are expected to choose between the two. Each section will attract 100 marks and should be taken within 3 hours. Instructions to Paper 3 would be sent to schools two weeks before the examination date.

Item Specification Table (Year 1, Semester 1)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Record and analyse the major indigenous Ghanaian Art periods and artworks in terms of materials, methods of fabrication, uses, and socio-cultural relevance	Multiple choice	1				1
Describe the contributions of the major indigenous Ghanaian Art periods and artworks to the Art history of Ghana	Multiple choice		1			1
Identify and explain the role of materials in the environment as basic media for creative expression in indigenous Ghanaian Art	Multiple choice					
	Essay		1			1
Research and record myths and legends in major indigenous African cultures and their artworks	Multiple choice	1				1
Evaluate the impact of indigenous art work on African cultures	Multiple choice					
Analyse and explain the contributions of indigenous African art to Global art.	Multiple choice					
Describe the art of major ancient cultures with timelines	Multiple choice		1			1

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse the impact of artworks from ancient cultures on modern global art	Multiple choice					
	Essay					
Discuss the contributions of ancient art to emerging art traditions	Multiple choice					
	Essay					
Explain design concepts in ancient cultures	Multiple choice	1	1			1
	Essay					
Categorise social and material conditions that produced designs in ancient cultures	Multiple choice					
	Essay			1		1
Explain various sensory perceptions	Multiple Choice					

Art And Design Foundation - Item Specification Table (Year 1, Semester 2)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Differentiate between sensory perception and cultural awareness	Multiple choice	1	1			2
Analyse and explain visuality, meaning-making, and production in relation to art and design.	Multiple choice			1		1
Explain how design concepts influence the design characteristics of objects and the design.	Multiple choice					
Differentiate between tradition, culture and worldviews in terms of design.	Multiple choice	1				1
Explain and Analysis visuality, meaning making, as well as design production in relation to art and design.	Multiple choice		1			1
	Practical					
Identify and categorise elements and constitutions of artistic content and forms	Multiple choice		1			1
	Essay		1			1
Analyse the combination of artistic form and content to make artistic decisions	Multiple choice					
Identify and discuss the key elements and principles of art and design	Multiple choice		1			1
	Essay					
	Practical					
Describe how the elements and principles of art and design are used to generate ideas for artworks	Multiple choice					
	Essay		1			1
	Practical					

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Identify and discuss key elements and stages of design thinking process	Multiple choice					
	Essay					
	Practical					
Identify and explain colour schemes and the mood they express	Multiple choice	1				1
	Essay					
Analyse pigment colours and that of the spectrum	Multiple choice					
	Essay					

Art And Design Foundation - Item Specification Table (Year 2, Semester 1)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse and explain the use of pigment colours, spectrum colours and environmental ideas in the creation of artwork	Multiple choice					
Compose appropriate tonal values and hues for forms in drawing	Multiple choice					
Identify and document Modern Ghanaian artists and their artworks from the 1920s to 1985 in relation to materials, methods, and uses	Multiple choice	1	1			2
Evaluate the contributions of Modern Ghanaian Artist and their artworks to the history of Ghana	Multiple choice			1		1
Classify Modern African art and changes that occurred in art making from 1900 to the 21st Century in relation to materials, methods, and their socio-cultural contexts	Multiple choice					
Analyse the impact of modern African art and design works on society	Multiple choice		1			1
List and explain Modern Art Movements (periods).	Multiple choice					
	Essay					
	Practical					
Analyse the impact of Western modern art on African art.	Multiple choice		1			1
	Essay					
	Practical					

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Discuss the relationship between Western Modern Art from 1850 to 1950 and modern African art with reference to materials, imagery, and meanings	Multiple choice	**1**				**1**
	Essay					
	Practical					
Categorise and discuss major modern design concepts, theories, and schools	Multiple choice	**1**				**1**
	Essay					
Analyse social and material conditions that produced designs and products.	Multiple choice					
	Essay					
Research materials and modes of production of specific cultural objects	Multiple Choice					

Art And Design Foundation - Item Specification Table (Year 2, Semester 2)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse and explain social conditions as inspirations behind works of art and design	Multiple choice					
Explain materials as repository of cultural memory.	Multiple choice					
Discuss regional material as alternatives to privileged material and for art	Multiple choice		**1**			**1**
Analyse art medium and scale in art production	Multiple choice			**1**		**1**
Discuss various aesthetic theories	Practical					
Analyse aesthetic theories and their contexts of application	Multiple choice					
Apply aesthetic theories in art and design works	Multiple choice					
Design an info graphic to illustrate the art and design processes.	Multiple choice					
	Essay					
	Practical					
Identify problems in the environment and design strategies to address them	Multiple choice			**1**		**1**
	Essay					
	Practical					
Design and execute prototypes as solutions to the problems identified.	Multiple choice					
	Essay					
	Practical			**1**		**1**

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Identify and explain colour relationships and symbolism in the various Ghanaian cultures.	Multiple choice		**1**			**1**
	Essay					
Create art and design works using pigment colours and Colours of the spectrum to reflect colour symbolisms in Ghana	Multiple choice					
	Essay					
	Multiple Choice					

Art And Design Foundation - Item Specification Table (Year 3, Semester 1)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Prepare weaves from natural sources and use harmonious colours to create art and design works	Multiple choice					
Create drawings of figurative representations in the environment	Multiple choice					
Compose appropriate treatments of constituent parts for forms of recognition and abstraction	Multiple choice					
Design and create works with available modern industrial material with appropriate process	Multiple choice		**1**			**1**
Research and document contemporary Ghanaian art in terms of materials, fabrication methods, applications, and educational relevance	Multiple choice	**1**				**1**
Evaluate the contributions of contemporary Ghanaian art and artists to the Ghanaian art scene	Multiple choice					
Analyse and explain the impacts of contemporary Ghanaian art on the Artworld	Multiple choice		**1**			**1**
	Essay					
	Practical					
Categorise and explain contemporary African art.	Multiple choice	**1**				**1**
	Essay					
	Practical					
Discuss the contributions of African contemporary art and artists to art institutions in Africa	Multiple choice					
	Essay					
	Practical					

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse and explain the impacts of contemporary African art on the Art world	Multiple choice					
	Essay					
Identify and discuss the major milestones of contemporary art.	Multiple choice		**1**			**1**
	Essay					
Analyse and explain the impacts of modern art on African art	Multiple Choice	**1**				**1**

Art And Design Foundation - Item Specification Table (Year 3, Semester 2)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse major design concepts in the 21st century	Multiple choice		**1**			**1**
Appreciate and make judgements in debates on 21st – Century Design	Multiple choice					
Categorise ethical issues associated with art and design	Multiple choice					
Discuss human-centred ethical issues in art as well as artistic responsibilities	Multiple choice					
Reflect on material responsibility, environment and emerging advocacy issues	Practical	**1**				**1**
Identify and explain various technology-based art and design works	Multiple choice		**1**			**1**
Differentiate between 3D, 4D, and 5D art forms	Multiple choice					
Analyse and articulate Crypto and Non-Fungible Tokens (NTFs) form of art	Multiple choice					
	Essay					
	Practical					
Identify and explain various aspects of art criticism.	Multiple choice	**1**				**1**
	Essay					
	Practical					
Analyse and articulate stages of art criticism	Multiple choice		**1**			**1**
	Essay					
	Practical					

Apply criticism to their own works and art and design in general	Multiple choice					
	Essay					
Discuss the development of CAD and its impact on product design.	Multiple choice				**1**	**1**
	Essay					
	Multiple Choice					
Identify and explain colour schemes and the mood they express in relation to learners' responses.						
Analyse pigment colours and those of the colour spectrum	Multiple choice	**1**			**1**	**2**
Create artworks from ideas in the environment using pigment colours and colours of the spectrum						
Organise and create drawings by relating basic contours and forms in simple objects in the environment using non-conventional materials	Essay				**1**	**1**
	Practical				**1**	**1**
Compose appropriate tonal values and hues for forms of resemblance.	Essay		**1**			**1**
Total		**15**	**22**	**6**	**4**	**47**

MCQs	40
Essay	**5**
Practical	**2**
Total	**47**

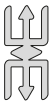
PLC SESSION 12

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous session, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand.
   b. identify three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.

b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q).

c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Use your app to plan and administer the mode of assessment for the Student Assessment Portal (SAP)

a. The key assessment for the week is ***practice paper 1.*** Chat with your app to plan this assessment by reviewing or developing the assessment items/tasks and marking schemes/rubrics for the practice paper (NTS 3k-3q).

10 minutes	Content Exploration

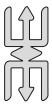
5. As a subject group, select one problem or topic/idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through the problem individually for 3–4 minutes

c. the group then works through it together the problem, step by step

d. highlight the most common errors made at each step (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	**Reflection**

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 13

Learning Indicator: *Identify and explain various technology-based art and design works*

FOCAL AREA: TECHNOLOGY-BASED ART AND DESIGN

TECHNOLOGY-BASED ART

Technology involves applying scientific knowledge and tools to solve problems and improve efficiency. In art, it refers to using these advancements to create and enhance artistic works, allowing for new forms of expression. Technology-based art incorporates modern tools, blending traditional practices with innovative techniques to offer unique experiences. It often includes digital devices and software, pushing the boundaries of creativity and audience interaction. Artists frequently collaborate with engineers and programmers, merging art with technology. This genre reflects our evolving relationship with the digital world and showcases diverse cultural narratives, especially from the Global South, contributing to a global dialogue in contemporary art.

Key Characteristics

- **Technology-based:** Use of scientific knowledge and tools to create, modify, or solve problems in art and design
- **Digital Tools**: Use of software, computers, and other digital devices in the creation process.
- **Interactivity**: Many forms of technology-based art allow audience participation or adaptation based on user input.
- **Immersive Experiences**: Technologies like VR and AR create fully immersive artistic environments.
- **Automation and Algorithms**: Some works are generated or influenced by artificial intelligence, robotics, or algorithmic processes.

Examples of Technology-Based Art

1. **Digital Paintings and Illustrations**: Created using tablets and software like Adobe Photoshop.
2. **Virtual Reality (VR) Art**: Fully immersive environments explored using VR headsets.
3. **Augmented Reality (AR) Art**: Overlaying digital elements onto the physical world via apps or devices.
4. **Generative Art**: Art produced by algorithms, often in collaboration with artists.

5. **Projection Mapping**: Transforming surfaces like buildings into animated, light-filled canvases.

Types of Technology-Based Art

1. **Video and Digital Media Art:** Artists use video, animation, and multimedia to explore dynamic visual storytelling. for example, Ghanaian artist Selasi Awusi Sosu uses digital video art to document cultural shifts and environmental challenges.



Figure 13.1: *Selasi Awusi Sosu. Glass Factory II series from the 'Ghana Freedom' exhibition at the Venice Biennale 2019.* Image Credit: Selasi Awusi Sosu

Source: *https://www.explore-vc.org/en/galleries/selasi-awusi-sosu-glass-factory.html.*

Figure 13.1 shows the picture of a multi-media art installation inside a dimly lit room with rough brick walls. On the left, a large video screen displays a clear scene of people covered in mud, engaged in hard physical labour outdoors. In a corner on the floor, a large, messy pile of old, earth-coloured glass bottles is illuminated by a spotlight. A second video screen, seen in a close-up on the right, shows a blurry and abstract view of green leaves and tangled branches.

2. **Digital Art/Digital Paintings and Illustrations:** Digital art involves creating artwork using digital tools such as tablets, computers, and design software. For instance, Beeple's digital artworks and Ghanaian artist Bright Ackwerh use digital art to tackle social and political issues,

3. **3D Art and Animation:** This involves creating three-dimensional objects using software like Blender, Maya, Rhino, or ZBrush. It's widely used in gaming, film production, and virtual environments. Recent animation films like *The Lion King (2019)*, *Cinderella (2021)*, and *Beauty and the Beast (2017)* employed a variety of software, including Hyperion, Cinema 4D, Houdini, Modo, and Autodesk 3ds Max.

4. **Generative Art:** Generative art is created using algorithms or artificial intelligence, often resulting in unexpected patterns or designs. For example, the artwork *Edmond*

de Belamy, created by AI to demonstrate the link between art and machine learning.

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Figure 13.2:*Portrait of Edmond de Belamy, from La Famille de Belamy (2018).Courtesy of Christie's Images Ltd.*

Source: *https://news.artnet.com/market/first-ever-artificial-intelligence-portrait-painting-sells-at-christies-1379902*.

Figure 13.2 shows a framed portrait picture of a portly gentleman in a dark suit and white collar, but his facial features are indistinct, blurred, and incomplete. The entire artwork has an unfinished, dreamlike quality, rendered with hazy, smudged strokes that make the figure appear like a forgotten memory or a digital ghost. A sombre palette of black, brown, and ivory dominates the canvas, with the right side of the portrait dissolving into a blank, beige space.

5. **Interactive Art:** Interactive art allows viewers to engage with the artwork, often using sensors, touchscreens, or other inputs. The experience changes based on user interaction. The TeamLab's *Borderless* digital art museum in Japan uses interactive artworks to respond to visitors' movements and touch.
6. **Virtual Reality (VR) Art:** VR art immerses viewers in a fully digital environment created using VR headsets and software. It offers new possibilities for storytelling and immersive experiences. The artist Rachel Rossin creates surreal VR installations, while Ghanaian artist Kabiru Seidu recreates traditional Ghanaian environments, allowing audiences to experience cultural practices in a virtual space.
7. **Augmented Reality (AR) Art:** AR art overlays digital elements onto real-world environments, viewable through devices like smartphones or AR glasses. Examples are Olafur Eliasson's Wunderkammer project and Akwasi Afranie Bediako's Trons.
8. **Robotic Art:** Robotic art involves integrating machines to create kinetic or autonomous pieces. Robots are programmed to perform specific artistic tasks.

Examples are AI. Nam June Paik's *Robot K-456* and Anicka Yi's *Biologizing the Machine*.

9. **Bio-Art :** Bio-art combines art with biological processes or living organisms, often sparking ethical discussions. examples are Eduardo Kac's *GFP Bunny*, *Alba*, and *Victimless Leather*, created by Oron Catts and Ionat Zurr.

Technology-based Practice: Between Art and Design

Artists use video, animation, and multimedia to explore dynamic visual storytelling. For example, Ghanaian artist Selasi Awusi Sosu uses digital video art to document cultural shifts and environmental challenges, while Cuban-American artist Ana Mendieta merges video with performance art to explore displacement and identity themes.

1. **Shared Tools and Techniques**
   - Both fields have shared tools and techniques for hundreds of years, from indigenous, to classical, modern and post-modern and contemporary practices. Presently, they use advanced technology to materialise their creative visions. Examples like how Software like Blender and Adobe Creative Suite is used by digital artists to create complex paintings and illustrations.

2. **Focus on Creativity and Innovation**
   - Art and design have pushed boundaries using available technology to explore new forms of expression and solutions. Artists use generative AI to create unique visual patterns, while designers apply AI to optimise architectural structures or user interfaces.

3. **User Interaction**
   - Technology allows both art and design to become participatory and interactive, enriching the user's experience. A VR art installation might immerse viewers in a surreal landscape, while an AR-enabled product design app allows users to visualise how furniture fits into their home or a new architecture fit into the cityscape.

4. **Influence on Culture and Society**
   - Both disciplines respond to and shape cultural and societal impulses and trends with soft and hard aesthetic appeals. Technology-based art addresses issues like climate change through impactful installations, while technology-based design creates sustainable products that align with ecological values.

Mini Project for Week 13: Technology-Based Design for Community Needs

Duration: 2 hours

Learning Outcome: Ability to create a technology-based design (either manual or digital) that addresses a specific need in the community, demonstrating understanding of relationships between technology, art, and design.

Project Theme: "Digital Solutions for Local Needs"

Create a design that:

- Addresses a specific need in your community
- Incorporates technology in either the design process or the solution itself
- Can be presented either manually (with annotations) or digitally

Technology Focus

This project explores how technology can be used in art and design to solve community problems.

Technology Approaches to Consider

- Photography and image-based documentation
- Video or animation concepts
- Digital design tools (CAD, graphic design software)
- Internet-based media and platforms
- Interactive design elements
- Combination of analogue and digital processes

Project Structure

Phase 1: Community Need & Technology Exploration (30 minutes)

1. In your groups, identify needs in your community that could benefit from technology-based solutions
2. Create a quick mind map showing relationships between:
    - The community need
    - Potential technology approaches
    - How art and design principles apply
3. Select one need to focus on and determine your technology approach

Phase 2: Design Creation

Create your design using either manual or digital methods.

Manual Option

- Create a detailed drawing or illustration of your design
- Include clear annotations explaining:
  - How it addresses the community need
  - The technology components involved
  - How it would function in practice
  - Materials and implementation

Digital Option

- Use available digital tools to create your design
- Consider using:
  - Digital drawing/design software
  - Photo editing and composition
  - 3D modelling (if accessible)
  - Presentation software with visual elements

Suggested Approaches

1. **Community Information System**
   - Design a way to share important community information
   - Consider digital displays, mobile applications, or hybrid solutions
2. **Environmental Monitoring Solution**
   - Design a system to track environmental conditions
   - Incorporate sensors, data visualization, or documentation methods
3. **Accessibility Enhancement**
   - Design improvements to make public spaces more accessible
   - Use technology to address barriers or improve navigation
4. **Cultural Documentation Platform**
   - Design a way to preserve local cultural knowledge
   - Consider digital archives, interactive displays, or recording systems

Phase 3: Sharing

1. Display designs together
2. Quick presentation of design concepts
3. Brief discussion of how technology enhances the solutions

Example Projects

1. **"Community Resource Map"**
   - **Need:** Better access to community resources
   - **Technology:** Digital mapping, QR codes, photography
   - **Approach:** Interactive map (physical or digital) showing local resources
2. **"Elder Stories Archive"**
   - **Need:** Preserving cultural knowledge
   - **Technology:** Audio/video recording, digital archiving
   - **Approach:** Design for a platform to collect and share elder stories
3. **"Public Transport Tracker"**
   - **Need:** Unreliable public transportation
   - **Technology:** Mobile interface, GPS tracking
   - **Approach:** Design for a system to track and report transportation status
4. **"Market Connect"**
   - **Need:** Connecting local producers to consumers
   - **Technology:** Online platform, photography
   - **Approach:** Design for a digital marketplace for local goods

Assessment Criteria

Criteria	Meeting Expectations	Exceeding Expectations
Community Relevance	Addresses an identifiable community need	Addresses a significant need with clear understanding of context
Technology Integration	Shows basic understanding of technology applications	Demonstrates innovative use of technology appropriate to context
Design Quality	Creates a functional design with clear purpose	Creates a sophisticated design with attention to usability and aesthetics
Communication	Clearly explains the basic concept and approach	Thoroughly communicates all aspects of the design and implementation

Differentiation Strategies

- Provide choice between manual and digital approaches
- Allow for collaborative work where beneficial
- Offer templates for design organization
- Ensure digital tools have accessibility features enabled
- Provide examples of technology-based designs for reference

Learning Tasks

1. How have digital technologies transformed traditional art forms like painting and sculpture?
2. What new art forms have emerged specifically because of technological developments?
3. How do artists use code, algorithms, and data as creative materials?

PEDAGOGICAL EXEMPLARS

1. *Problem-based Learning; Building on What Others Say:* In a class discussion, brainstorm types of technology-based art and relationships between art and design, and technology from experience.

   Examples: Photography, film, video, Internet-based media, etc.

2. *Managing Talk for Learning:* In small groups, investigate by generating a mind map of the relationships between.
   - photography and film.
   - film and video.
   - Analogue photography and film.
   - Internet-based media for presentations in class.

3. *Managing Talk for Learning:* Investigate in convenient groups the relationships between actual objects and design and internet-based media (virtual objects and designs) for class discussion.

KEY ASSESSMENT

Level 4: Digital Gallery Curation

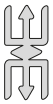
1. How have digital technologies transformed traditional art forms like painting and sculpture?
2. What new art forms have emerged specifically because of technological developments?

3. How do artists use code, algorithms, and data as creative materials?
4. Analyse three distinct approaches to technology-based art that have emerged since 2000, examining their technological foundations, aesthetic principles, and conceptual frameworks.

PLC SESSION 13

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***digital gallery curation***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the digital gallery curation (NTS 3k-3q).

10 minutes	Content Exploration

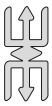
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 14

Learning Indicators

1. *Differentiate between 3D, 4D, and 5D art forms*
2. *Analyse and articulate Crypto and Non-Fungible Tokens (NTFs) forms of art*

FOCAL AREA: ART FORMS

3-DIMENSIONAL ART FORM

Conventionally, three-dimensional (3D) art refers to art forms that have depth, height, and width, allowing them to exist and occupy space. Unlike two-dimensional art (flat images), 3D art engages the viewer physically, as it can be observed from multiple angles and sometimes interacted with. This type of art includes a variety of media and techniques, offering tangible and often immersive experiences. 3D art blurs boundaries between aesthetic and tactile experiences, offering artists a dynamic way to engage audiences and explore complex themes.

Categories of conventional 3D Art

1. **Sculpture**
   - Traditionally, sculptures are physical forms formed by carving, modelling, casting, or assembling materials. They can range from small figurines to monumental installations. some examples are:
     - o Michelangelo's *David* (Italy)—carved from marble.
     - o El Anatsui (Ghana)—known for large-scale sculptures made from discarded materials like bottle caps.
     - o Kohei Nawa's *PixCell-Deer#24* (Japan)—a sculpture covered in glass beads to distort perception.
2. **Installations**
   - Installations are 3D works that transform a space and often engage viewers to walk around or through them. They often evoke conceptual themes or create sensory experiences. some examples are:
     - o Yayoi Kusama's *Infinity Mirror Rooms*—immersive installations using mirrors and lights.
     - o Ibrahim Mahama's *Parliament of Ghosts* (Ghana)—using repurposed materials to explore post-colonial histories.



Figure 14.1: *Ibrahim Mahama's Parliament of Ghosts at MIF19 Image credit: Michael Pollard*

Source: https://floraliawordsandimages.wordpress.com/2019/09/02/exhibition-review-reprocessing-abandoned-infrastructures-in-parliament-of-ghosts-ibrahim-mahama/

Figure 14.1 shows a picture of a wooden amphitheatre-style seating inside a modern, well-lit room. The seating is arranged in two sets of bleachers facing each other, with a central aisle and metal handrails on both sides. The seats and steps are made from unfinished wood, giving a rustic appearance. At the far end of the room, there are shelves or cubbyholes made from similar wood, filled with various boxes and objects. The ceiling is arched with skylights, allowing natural light to fill the space. The floor is made of light-coloured wood, and the walls are plain white, creating a clean and open atmosphere.

3. **Ceramics and Pottery**
   - Ceramics involve shaping clay into functional or decorative forms, which are then hardened by firing. These works can be artistic or utilitarian. some examples are
     - o *Abusua Kuruwa* pottery designs in Ghana are used for rituals and storage.
     - o Grayson Perry (UK)—elaborately designed ceramic vessels with social commentary.

4. **3D Digital Art**
   - Digital tools like 3D modelling software are used to create sculptures, animations, or virtual experiences. These works may exist purely digitally or be fabricated into physical forms.

5. **Architectural Art**
   - Architectural works blend function with aesthetics, creating buildings or structures that are both practical and visually appealing. some examples are:
     - o Antoni Gaudí's *Sagrada Familia* (Spain).

- Great Mosque of Djenné (Mali)—a masterpiece of earthen architecture.



Figure 14.2: *Great Mud Mosque of Djenné (Mali)*
Source: *https://www.gertv.org/post/the-great-mud-mosque-of-mali.*

Figure 14.2 shows a large, impressive mud-brick building with tall, pointed towers and wooden beams sticking out horizontally from the walls. The structure has a unique, sculpted appearance, with rounded edges and a sandy brown colour that matches the ground around it. The sky above is partly cloudy with patches of blue. This building is the Great Mosque of Djenné in Mali, known for its distinctive Sudano-Sahelian architectural style. In the foreground, there is a smaller, similar mud structure with pointed tops.

Key Features of 3D Art

- **Material Variety**: Can include wood, clay, stone, metal, digital mediums, or found objects.
- **Interaction**: Encourages viewers to move around or interact with the piece.
- **Physical Presence**: Often alters or integrates into its environment..

What makes 3D Art unique

- **physicality**
  - Unlike 2D art, 3D works occupy real or virtual space, creating a tangible or immersive experience.
- **dynamic perspectives**
  - 3D pieces offer a complex experience, evolving as viewers move around or interact with them.

- **cross-disciplinary potential**
  - 3D art often collaborates with fields like architecture, technology, and environmental science, making it a versatile medium for communication and innovation.

4-Dimensional Art form

What Is 4D Art?

4-dimensional art incorporates time as its fourth dimension, alongside height, width, and depth. Unlike traditional static art forms, 4D art evolves and is experienced over time. This includes moving sculptures, interactive installations, and immersive experiences that engage the senses. By highlighting the passage of time and fluidity of perception, 4D art challenges viewers and creates a dynamic, interactive expression that pushes the boundaries of conventional. key Examples of 4D Art:

Marcel Duchamp's "Nude Descending a Staircase, No. 2" (1912)

Though a static painting, this early work attempted to show movement through time by displaying multiple positions of a figure simultaneously, inspired by time-lapse photography and early cinema. It represents an early attempt to capture the fourth dimension on a 2D canvas.

Figure 14.3: *Marcel Duchamp. Nude Descending a Staircase (No. 2). 1912. Oil on canvas, 57 7/8 x 35 1/8 inches.* Image: Philadelphia Museum of Art

Source: https://artcentron.com/2017/03/04/marcel-duchamp-fountain-scandal/

Figure 14.3 shows the painting of Marcel Duchamp, *Nude Descending a Staircase, No. 2*, a revolutionary, abstract vision of movement rather than a static portrait. Instead of a single form, the canvas is filled with a cascade of overlapping, fragmented geometric shapes that suggest the body's path through space over time. A muted, almost monochromatic palette of warm browns, ochres, and greys dominates the work, creating a mechanical and analytical feel, devoid of traditional warmth or sensuality. The entire composition is built on powerful diagonal lines that propel the eye from the upper left to the lower right, mimicking the continuous, staccato rhythm of footsteps on a staircase. Sharp, black outlines define the edges of the shifting planes, while softer, shaded areas give a sense of volume, creating an effect similar to multiple-exposure photography or early motion pictures.

Alexander Calder's "Mobiles" (1930s onwards)

These delicately balanced moving sculptures change constantly as air currents push their components into new arrangements. Each viewing presents a different configuration, making time an essential element of experiencing the work.

Nam June Paik's Video Art (1960s–1990s)

Paik pioneered video as an art form, creating installations like "TV Garden" (1974) where televisions displaying changing imagery were placed among living plants. The continuous flow of video content made time a crucial dimension of the artwork.

Olafur Eliasson's "The Weather Project" (2003)

This immersive installation featured a giant artificial sun in the Tate Modern's Turbine Hall. As visitors moved through the space over time, they became part of the artwork. The experience changed throughout the day as natural light conditions shifted, making time central to the work.



Figure 14.4: *The weather project, 2003, Tate Modern, London Photo: Tate Photography (Andrew Dunkley & Marcus Leith)*

Source: *https://olafureliasson.net/artwork/the-weather-project-2003/.*

Figure 14.4 shows a picture of a large indoor hall with high ceilings, filled with an intense orange-yellow light from a huge artificial sun-like sphere suspended at one end. The space is bathed in a warm, glowing haze. Scattered groups of people are sitting or lying on the floor, facing the glowing sphere, creating long shadows. The atmosphere feels surreal and immersive, as if the sun is rising indoors. The architecture is industrial, with tall walls and a vast open floor.

Rafael Lozano-Hemmer's "Pulse Room" (2006)

This interactive installation features hundreds of lightbulbs that flash in patterns corresponding to visitors' heartbeats, recorded when they grasp a sensor. The installation stores up to 300 heartbeats, creating a constantly changing light composition that represents the accumulated presence of visitors over time.

TeamLab's Digital Artworks (2010s-present)

This Japanese art collective creates immersive digital environments that continuously transform. Their work "Graffiti Nature" allows visitors to draw animals that then come to life and move through the projected environment, interacting with other elements and evolving.

Characteristics of 4D Art

- **Impermanence**: The artwork exists in a state of change rather than stasis.
- **Experience-based**: Full appreciation requires spending time with the work.
- **Often participatory**: Many 4D artworks involve audience interaction.
- **Multisensory**: May engage multiple senses beyond just vision.
- **Process-oriented**: The changing state of the work is central to its meaning.

5-Dimensional Art Forms

"5D art" extends beyond the usual three dimensions of space and the fourth dimension of time to include interaction and engagement of multiple senses. It allows audiences to move through, influence, and experience art in ways that involve more than just sight. This approach fosters a deeper connection between the artist and the audience, where viewers become active participants rather than passive observers. By breaking down barriers between art and its audience, 5D art creates new possibilities and opportunities for cultural exchange and dialogue, while challenging traditional notions of artistic experience. As technology evolves, 5D art represents an exciting new frontier for creative expression.

In indigenous African art, 5D art refers to the entire masquerade enterprise, like the Egungun and Bundu in all their rituals and dances. The same can be said about the Ankos Festivals in Takoradi and Winneba, with contemporary issues-inspired masks and costumes and movement with Hiplife and Afrobeat brass band rhythms.

Key Features of 5D Art

1. **Spatial Depth (3D)**
    - Works occupy real or virtual space—sculptures, installations, or virtual environments.

2. **Time-Based Change (4D)**
    - Elements evolve with time: moving parts, video projections, or evolving light shows.
3. **Interactive Participation (5D)**
    - Viewers affect the artwork through touch, movement, or data inputs.
4. **Multisensory Elements**
    - Combines sound, scent, temperature, or haptic feedback to engage more than sight.

Examples of 5D Art

- **Interactive VR Installations**
    - o A virtual-reality room where visitors' movements change the visuals and sounds around them.
- **AR Sculptures**
    - o Augmented-reality artworks viewed on a smartphone that respond when you walk around them. The use of AR technology in museums allows for the creation of dynamic and personalised artworks, such as static sculptures.
- **Immersive Light and Sound Shows**
    - o Spaces where lights, music and scented vapours shift as you move, creating a living environment. Artist Mel Chin's "Unmoored" uses augmented reality to create a digital Statue of Liberty submerged in water, addressing climate change and rising sea levels.
- **Kinetic Social Sculptures**
    - o Physical pieces with sensors that react to crowd noise or body heat, altering shape or colour. For example, Rafael Lozano-Hemmer's "Pulse Spiral" sculpture in Philadelphia uses sensors to create a kinetic light display, reflecting crowd energy.
- **Indigenous African Masquerades**
    - o Traditional masquerades like the Ankos Festivals in Ghana are 5-dimensional art, weaving together printed cloth, painted body motifs (2D) with carved, modelled, or cast masks and headdresses (3D), unfolding rituals over hours or days (4D), and engaging audiences through dance, song, drums, smoke and scent (5D).



Figure 14.5: *Traditional masquerades at the Ankos Festivals in Ghana*
Source: *https://en.wikipedia.org/wiki/Ankos_Festival*

Figure 14.5. This is a bright, outdoor photo of a lively street parade filled with people in festive attire. Many participants wear incredibly vibrant and detailed costumes in shades of orange, yellow, white, and cyan. The central figure stands out, wearing a scary, beige-coloured mask depicting a disfigured face with a grimace. Their costume, like those of others in the group, is a full suit made of layered, frilly fabric arranged in swirling patterns. The parade takes place on a sunny city street, with buildings, market umbrellas, and blue street signs visible in the background.

Figure 14.5 shows a picture of a street parade with people wearing elaborate costumes in different colours. The costumes are predominantly orange, white, green, and blue with circular patterns and decorations. Some participants are wearing masks. The scene is lively, with a crowd gathered under umbrellas. There are street signs with inscriptions such as "EDDY BLAY LN" and "ANOKI AJADO ST."



Figure 14.6: *Masquerades Entertaining, at the Samodun Festival Organised By Oyo State Ministry of Culture and Tourism In Ibadan On Thursday (24/1/13). Egungun Festival. Nigeria*
Source: *https://tribuneonlineng.com/a-focus-on-egungun-festival-in-oyo-town/*

Figure 14.6 shows a picture of a group of people dressed in elaborate masquerade costumes, featuring large, colourful, and flowing fabrics that cover their entire bodies. The costumes have a patchwork of shiny, patterned materials in red, gold, blue, and other bright colours, with some parts hanging down like streamers. The masquerades are

performing outdoors on a reddish ground, while a crowd of people in uniforms and traditional attire watch in the background.

5D Art matters because of their

- **engagement**, which makes the audience an active participant, not just a spectator.
- **empathy**, involving multisensory cues that can convey complex emotions or ideas more powerfully.
- **innovation**, which combines art, design and technology, opening new creative possibilities.

Indigenous masquerades like egungun and bundu are 5-dimensional, featuring 2-dimensional paintings and textiles, 3-dimensional masks and accessories, songs, and performances. This dynamic interaction between visual and tangible elements creates an immersive experience that evolves through songs and performances. This showcases how 5-dimensional art can combine different forms of expression, creating a multidimensional experience for the audience.

5D Experience as Glossary

- **Virtual Universe**

  A vast online world where many users interact in real time, exploring landscapes and meeting others through digital avatars.

- **Virtual Travel**

  Using VR headsets to "visit" distant places—like walking the streets of Rome or diving the Great Barrier Reef—without leaving home.

- **Interactive Virtual Tours**

  Guided, clickable journeys through real or imagined sites (museums, heritage towns) that let you choose where to look and learn extra details as you go.

- **Virtual Museums and Galleries**

  Digital spaces displaying artworks or artefacts in 3D; you can "walk" through rooms, zoom in on exhibits and read labels just as in a real museum.

- **Metaverse**

  A network of connected virtual worlds where you can move seamlessly from one space to another, carry digital items with you, and socialise or work with people globally.

- **Second Life**

One of the first metaverse platforms (launched in 2003) where users create avatars, build environments, run businesses and form communities in a virtual city.

- **Avatars**

  Digital character or persona in any virtual space—customisable in appearance, clothes and accessories to represent you online.

- **Decentraland**

  A blockchain-based virtual world where parcels of land are owned as NFTs; users build and trade experiences, games and artwork on their own land.

- **Game-Spaces**

  Virtual environments built for gaming—like Fortnite's island or Roblox worlds—where play, socialising and even live events (concerts, talks) take place.

Mini Project for 14 and 15: Traditional to Virtual – Simulating Community Heritage

Duration: 4 hours *(this project is for weeks 15 and 16)*

: Ability to Create a concept for transforming a traditional element from your community into a virtual experience that can be simulated in 3D, 4D, and 5D environments.

Project Brief and Theme: "Heritage in Virtual Dimensions"

Design a comprehensive concept that:

1. Takes a traditional element from your community (craft, ceremony, structure, story, etc.) and transforms it into a virtual experience across multiple dimensions:
   - 3D: Spatial representation (virtual object or environment)
   - 4D: Time-based interaction (adding movement, change, or narrative)
   - 5D: Multi-sensory experience (incorporating additional sensory elements)

2. Can be presented as a detailed manual visualisation or digital concept

Dimensional Focus

Understanding Dimensions

- **3D:** Three-dimensional space (height, width, depth)
- **4D:** 3D + time (movement, change, interaction over time)
- **5D:** 4D + sensory dimensions (sound, smell, possibilities or alternative outcomes, etc.)

Project Structure

Phase 1: Research & Selection

1. Research traditional elements from your community
2. Document their historical significance, visual characteristics, and sensory elements

3. Select one element for your project

Phase 2: Virtual Platforms Exploration

1. Explore examples of virtual platforms and technologies
2. Consider how these platforms handle 3D, 4D, and 5D elements

Phase 3: Dimensional Transformation Planning

Create a detailed plan for transforming your traditional element across dimensions:

1. **3D Transformation:** Spatial representation details
2. **4D Transformation:** Time-based elements and interactions
3. **5D Transformation:** Multi-sensory and possible components

Phase 4: Concept Development

Create your concept using either manual or digital methods, including:

1. Visual representation of the traditional element
2. 3D virtual environment design
3. 4D interaction sequences
4. 5D sensory elements
5. User experience considerations

Phase 5: Prototype Development

Develop a simple prototype or detailed visualization of one aspect of your concept

Phase 6: Presentation Preparation (30 minutes)

Organize your concept into a coherent presentation

Phase 7: Sharing & Feedback

Present your concept to the class

Example Projects

1. **“**Traditional Weaving Virtual Experience”
2. “Sacred Grove Immersion”
3. “Festival Participation Simulation”
4. “Traditional Architecture Explorer”

Assessment Criteria

Criteria	Meeting Expectations	Exceeding Expectations
Cultural Understanding	Shows basic knowledge of the traditional element	Demonstrates deep appreciation of cultural significance
Dimensional Thinking	Addresses basic aspects of 3D, 4D, and 5D	Creates innovative connections across all dimensions
Concept Quality	Presents a clear, workable concept	Develops a comprehensive, innovative concept
Visual Communication	Creates understandable visuals	Produces detailed, effective visual materials
Technical Consideration	Shows awareness of implementation needs	Provides realistic technical specifications

Differentiation Strategies

- Allow for team collaboration
- Provide research resources
- Offer templates and examples
- Allow multiple forms of expression

Learning Tasks

Dimensional Art Viewer Experience Study

Compare how viewers experience art across different dimensions.

Steps

1. Gather three examples of dimensional art:
   a. 3-D - object (sculpture, pottery, basket, cloth, etc.)
   b. 4-D - time-based piece (short video, film, animation, dance, athletics, etc.)
   c. 5-D - interactive work (audience participation piece, e.g. virtual reality, augmented reality, NFTs, etc.)
2. Create simple response cards asking:
   a. How does this artwork make you feel?
   b. What do you understand from it?
   c. How engaged are you with it?
3. Show your examples to 20 classmates and collect their responses.
4. Create a chart comparing how viewers responded to each dimension.

5. Write a short report answering:
   a. Which dimension created the strongest reactions?
   b. Which dimension might be difficult to access in Ghana?
   c. How do Ghanaian cultural practices affect how we experience different art dimensions?

Assessment

1. Explain how a 3-D artwork engages different senses, compared to a flat painting.
2. What physical elements make 4-D art different from 3-D art? Give one example.
3. How do traditional Ghanaian performance arts already incorporate multiple dimensions?

PEDAGOGICAL EXEMPLARS

- *Managing Talk for Learning:* In small groups, investigate the relationships between actual places and simulated places (cyberspace and virtual platforms) as design concepts for class presentations.

  Examples: Virtual Universe, Virtual travel, Interactive virtual tours, Virtual museums and galleries, Metaverse, Second Life, Avatars, Decentral and, game-spaces, etc.

- *Experiential Learning:* Embark on virtual tours and visits to, or watch videos of, different virtual platforms, and record experiences for class discussion. Examples: Virtual museums and galleries, Cities, Metaverse, Second Life, Avatars, Decentral and, gaming platforms, etc.
- *Building on What Others Say:* Share individual experiences of the virtual tours and visits or watching videos of different virtual platforms in class discussion.
- *Experiential Learning/Project-based Learning:* In convenient groups, investigate the possibilities of participation (as citizens, emigrants, gamers, tourists, trades, etc) in different virtual platforms and create avatars for participation (as citizens, emigrants, gamers, tourists, trades, etc) in different virtual platforms.

KEY ASSESSMENT LEVEL 4: ESSAY

1. Explain how a 3D artwork engages different senses compared to a flat painting.
2. What physical elements make 4D art different from 3D art? Give one example.
3. How do traditional Ghanaian performance arts already incorporate multiple dimensions?

FOCAL AREA: CRYPTO AND NON-FUNGIBLE TOKENS (NTFS) FORMS OF ART

Introduction

Crypto and NFTs are digital forms of art linked to blockchain. NFTs are unique digital tokens that prove ownership and authenticity of artworks. Unlike cryptocurrencies, they can't be exchanged like-for-like. Crypto art uses blockchain to create, sell, and verify digital works securely. The decentralised system ensures each piece has a clear, traceable history and a verified origin.

Crypto and NFT Art Mechanism

1. **Creation ("Minting")**
   - An artist "mints" a digital file (image, animation, sound) into an NFT on a blockchain (for example, Ethereum).
2. **Ownership**
   - The NFT's code contains metadata—artist's name, creation date, and edition size that cannot be altered.
3. **Buying and Selling**
   - Collectors purchase NFTs with cryptocurrency (e.g., Ether). The blockchain records each sale, ensuring provenance and preventing fraud.
4. **Royalties**
   - Smart contracts can automatically pay artists a percentage every time their NFT resells, supporting ongoing income.

Examples NFT Art

- **Beeple – *Everyday: The First 5000 Days***
  - A collage of 5,000 digital images, sold as an NFT for $69 million at Christie's in March 2021.
- **Pak – *The Merge***
  - An artwork sold on the Nifty Gateway platform, where over 28,000 collectors bought "mass units" that merged into unique NFTs.
- **Osinachi (Nigeria) – Afrofuturist Series**
  - Nigerian digital artist Osinachi creates vibrant, futuristic portraits celebrating African culture. His NFTs have sold on platforms like Foundation, bringing African digital art to the global stage.

- **CryptoPunks**
  - One of the earliest NFT projects, featuring 10,000 pixel-art characters. Rare Punks have sold for millions of dollars, demonstrating strong collector demand.

Impact of Crypto and NFT Arton Art, Artists and Art Institutions

- **New Revenue Streams and Opportunities**

  NFTs have created unprecedented opportunities for digital artists who previously struggled to monetise their work. Artists can now sell digital creations directly to collectors without traditional intermediaries.

- **Democratisation of Access**

  NFTs have allowed artists outside traditional art market centres to reach global audiences and collectors. For example, Senegalese photographer Linda Dounia created the NFT series "*Cyber Portraits*," earning international recognition without requiring gallery representation or relocation to art capitals.

- **Royalties on Secondary Sales**

  Smart contracts in many NFTs give artists a share (usually 10–15%) of future resales, solving the problem of artists missing out on rising artwork value. For example, Sarah Zucker set a 10% royalty on her NFTs and earned more from resales than original sales, gaining steady passive income as her work became popular.

African Artists and NFTs

The NFT space has created particular opportunities for African artists to circumvent traditional gatekeepers and connect directly with global markets. For example,

- Nigerian artist Osinachi (Prince Jacon Osinachi Igwe) became Africa's foremost crypto artist, using Microsoft Word to create vibrant digital paintings exploring African life.
- The African Digital Art Network created "Nandi NFT Marketplace," specifically focused on African creators, addressing the need for platforms that understand the unique challenges African artists face with financial systems and digital access.

The Future Outlook

- The NFT market has experienced volatility since the 2021 boom, but more sustainable approaches are emerging. Artist Damas Ngaboyamahina's "The Akuaba NFT" project in 2022 combined traditional Ghanaian fertility doll imagery with digital techniques, donating a percentage of proceeds to arts education in Ghana.

- NFTs have altered the art landscape by creating new markets, changing revenue models, and challenging traditional ownership and value concepts. They have expanded possibilities for artists to reach audiences and monetise their work.

Learning Tasks

Group Inquiry Infographic Project:
Traditional Art Goes Digital: Crypto and NFT Possibilities for Indigenous Ghanaian Art

Project Steps

1. Choose and Research
   - Pick one indigenous Ghanaian art form (kente, adinkra, gold weights, pottery, sculpture, etc.).
   - Learn about Crypto and NFT art, and how they work.
2. Talk to Artists
   - Research for artists and craftspeople (local ad abroad) on what they think about digital art projects and sales.
3. Plan Your Project
   - Create a simple idea for creating traditional art as NFTs.
   - Consider how to respect culture and who benefits from the work.
4. Make an Infographic
   - Design an infographic to illustrate your art form and your NFT plan
5. Present to Class
   - Share your ideas and answer questions

PEDAGOGICAL EXEMPLARS

- *Experiential Learning:* Watch videos on digital assets and valuables (virtual opposites of actual valuables), and how they are created, stored and shared.

  Examples: Crypto-collectables, cryptocurrencies, crypto-art, NFTs, blockchain art, etc.
- *Managing Talk for Learning and Group Work/Collaborative Learning:* In convenient groups, investigate and record essential procedures of digital conversion of existing objects (assets/valuables) for virtual platforms for class presentations.

- *Project-based Learning:* In small groups/individuals, experiment with the essential requirements and procedures of digital conversion of existing objects to create digital assets.

KEY ASSESSMENT

Level 4: Case Study

Case Study

Kwadwo, a skilled Adinkra cloth printer from Ntonso, comes from a long line of traditional makers using hand-carved stamps and natural dyes. His niece, an art student at KNUST, recently suggested turning his Adinkra designs into digital works as NFTs to sell online. Kwadwo is interested but unsure. He wonders if digital versions will be valued, how to create and sell NFTs without tech skills, and whether this could affect the worth of his physical cloths. He also worries about preserving the cultural meaning of Adinkra symbols in a global digital market.

Task

Your group represents a team of consultants helping Kwadwo decide whether and how to enter the NFT market.

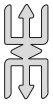
i. Create a proposal that addresses his concerns and outlines a practical approach for bringing traditional adinkra designs into the digital marketplace while respecting cultural values.

PLC Session 14

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)

c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app

a. The key assessment for the week is ***case study***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the assessment (NTS 3k-3q).

10 minutes	Content Exploration

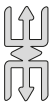
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).
   a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.
   b. After the enactment, ask for structured feedback from the group
      i. was the concept explained in a way that a learner with no prior knowledge could follow?
      ii. were the examples grounded in contexts familiar to Ghanaian learners?
      iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).
8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).
9. Remember to
   a. transfer your chats into your learning planner template.
   b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).
   c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

Section 3 Review

In this section, we have explored important ethical questions in art that matter in Ghana, just as anywhere in the world. We have learned how artists must think carefully about showing people from different backgrounds with respect and getting proper permission to use cultural symbols and designs. The section also explored how art materials can harm our environment and how to choose better options. Many traditional Ghanaian art practices already show us good ways to work with natural materials that do not damage our surroundings. The section also looked at new digital art forms, including NFTs (digital ownership certificates) and blockchain art production that create fresh challenges. These raise questions about amenities, who can access digital art, and how ownership works differently from

traditional Ghanaian understandings of communal creativity and the emerging digital and virtual realities.

Through our projects, we have practised important skills like:

- Spotting different types of ethical issues in artwork
- Judging whether the artwork represents people fairly
- Measuring how art materials affect the environment
- Understanding new digital art forms

The content and skills explored in this section will help learners become responsible artists and designers who make thoughtful choices about their work, respecting people, heritage and the environment while embracing new creative possibilities as Glocal citizens.

APPENDIX: MARKING SCHEMES FOR THE KEY ASSESSMENTS

WEEK 11

Criteria	Excellent (2)	Very Good (1.5)	Satisfactory (1)	Needs Improvement (0.5)
Concept Analysis	Sophisticated analysis of appropriation with nuanced understanding	Clear explanation with sound understanding	Basic definition with adequate understanding	Vague definition with misconceptions
Power Dynamics	Critically examines power relationships with insight	Explains power imbalances relevantly	Identifies basic power issues	Mentions power superficially
Context	Analyses historical/ contemporary implications expertly	Explains relevant contextual factors	Describes some contextual elements	Lists minimal context
Examples	Analyses multiple specific cases showing different dimensions	Examines relevant examples with connections	Describes general examples adequately	References vague examples
Ethical Responses	Evaluates multiple approaches critically	Explains several ethical responses	Identifies basic solutions	Mentions limited approaches

Total: $2 \times 5 = 10$ marks

WEEK 12

Criterion	Marks	Excellent (1.5)	Very Good (1)	Satisfactory (0.5)	Needs imnprovement (0)
Consent Understanding	1.5	Understanding of informed consent with nuanced examples	explains the importance of consent with one example	Explains the basic need for consent	No mention of consent issues

Criterion	Marks	Excellent (1.5)	Very Good (1)	Satisfactory (0.5)	Needs imnprovement (0)
Dignity Preservation	1.5	Analysis of dignity preservation across different contexts	Clearly explains dignity preservation with one example	Explains basic concept of preserving subject dignity	No mention of dignity considerations
Power Awareness	1	Analysis of how power affects ethical responsibilities	Clear explanation of power dynamics with one example	Basic recognition of the artist-subject power relationship	No recognition of power dynamics
Accurate Representation	1	Analysis of complexities in truthful representation	Explanation with one relevant example	Explanation of the need for accuracy	No mention of representation accuracy

Total: 1.5 + 1.5 +1 + 1 = 5 marks

Criterion	Marks	Excellent (1.5)	Very Good (1)	Satisfactory (0.5)	Needs Improvement (0)
Dignity Impact Analysis	1.5	An analysis with multiple contexts considered	Clear analysis with one relevant example	Basic explanation of how art affects dignity	No analysis of art's impact on dignity
Stereotype Examination	1.5	Examination of subtle and obvious stereotyping	Clear analysis with one example	Basic explanation of harmful representations	No mention of stereotypes
Cultural Sensitivity	1	Understanding of diverse cultural contexts	Clear explanation with one relevant example	Basic recognition of cultural perspectives	No mention of cultural context
Ethical Decision-making	1	Balancing of competing ethical concerns	Explains one ethical decision-making process	Basic ethical reasoning presented	No mention of ethical considerations

Total: 1.5 + 1.5 + 1 + 1 = 5 marks

WEEK 13

Criteria	Excellent (5)	Very Good (4)	Satisfactory (3)	Needs Improvement (2)
Material Lifecycle	Analysis of three materials' full lifecycle impacts with examples and local context.	Explanation for three materials with identification of lifecycle stages in the Ghanaian context.	Partial analysis with gaps in the environmental impact assessment.	Superficial analysis with minimal lifecycle consideration.
Initiative Evaluation	Assessment of initiatives using evidence for effectiveness, scalability and cultural fit.	Evaluation of initiatives with supporting evidence for success factors.	Limited assessment of initiatives with few concrete measures of success.	Vague assessment lacking meaningful evaluation criteria.
Knowledge Integration	Synthesis of indigenous ecological practices with contemporary sustainability approaches.	Integration of traditional and modern approaches with respect for indigenous knowledge.	Basic connection between traditional and contemporary approaches.	Minimal consideration of indigenous knowledge systems.
Proposal Quality	Practical proposal with implementation steps, stakeholder analysis, and resource planning.	Viable proposal with reasonable implementation plan and resource considerations.	Basic proposal lacking stakeholder analysis or resource planning.	Underdeveloped proposal with limited practical application.
Community Approach	gement strategy with a deep understanding of community dynamics and participation barriers.	Sound engagement approach with appropriate participation methods.	Basic strategy shows a limited understanding of community dynamics.	Minimal engagement planning with inappropriate methods.

Total: $5 \times 5 = 25$ marks

WEEK 14

Criteria	2 marks	1 mark	0–1 mark
Analysis of Technology Impact (2 marks)	Analyses how specific digital tools change both the creation process and the appearance of traditional art.	Explains how digital tools affect traditional art with limited analysis	Lists digital tools with little analysis
Examples and Evidence (2 marks)	Provides specific examples of artists using digital technology in traditional forms with clear explanations.	Gives general examples with basic explanations	Mentions examples without proper explanation
Comparison with Traditional Methods (1 mark)	Mentions the advantages and limitations of digital versus traditional approaches.	Limited or unclear comparison	No comparison attempted

Total: 2 + 2 + 1 = 5 marks

Identification of New Art Forms (2 marks)	Identifies multiple technology-dependent art forms with clear explanations of each	Identifies 1–2 new art forms with basic explanations	Names art forms without clear explanations
Technology Connection (2 marks)	Analyses specifically how each art form depends on particular technological capabilities	Explains some connections between technology and new art forms	Mentions technology without explaining connections
Cultural Significance (1 mark)	Evaluates the importance of these new forms in contemporary culture	Limited discussion of cultural impact	No mention of cultural significance

Total: 2 + 2 + 1 = 5 marks

Criteria	2 marks	1 mark	0-1
Understanding Digital Materials (2 marks)	Analyses how code and data function differently from physical materials with specific properties	Explains some differences between digital and physical materials	Mentions digital materials without comparing them to physical ones
Creative Process Analysis (2 marks)	Examines how artists make creative decisions through coding and how these affect outcomes	Describes some aspects of coding in the creative process	Minimal explanation of how coding relates to creativity
Relevant Examples (1 mark)	Provides specific examples of code-based artworks with clear explanations.	Mentions examples without clear explanation (0)	No relevant examples provided

Total: 2 + 2 + 1 = 5 marks

Criteria	Excellent (4-5)	Very good (3-4)	Satisfactory (2-3)	Needs improvement (1)
Technological Analysis	Demonstrates a comprehensive understanding of the technological foundations of all three approaches with precise, accurate, and detailed explanation of the specific technologies, processes, and innovations involved	Demonstrates thorough understanding of technological foundations with accurate explanations of key technologies and processes	Demonstrates basic understanding with some accurate explanations but notable gaps or misconceptions	Shows limited understanding with significant gaps or inaccuracies
Aesthetic Analysis	Provides exceptionally insightful analysis of aesthetic principles with understanding of visual/experiential elements, compositional strategies, and sensory dimensions	Provides thoughtful analysis of aesthetic principles with understanding of key visual elements and compositional approaches	Provides basic analysis with some recognition of aesthetic elements, but limited depth	Provides superficial analysis with minimal recognition of aesthetic dimensions

Criteria	Excellent (4–5)	Very good (3–4)	Satisfactory (2–3)	Needs improvement (1)
Conceptual Framework Analysis	Analyses the theoretical and conceptual foundations with exceptional insight into philosophical underpinnings, artistic intentions, and cultural contexts	Explain conceptual foundations with good insight into artistic intentions and contexts	Describe some conceptual elements with limited depth or connections	Minimally addresses conceptual aspects with significant gaps
Artist/Designer Analysis	Analysis of three artists/designers with exceptional insight into their technical methods, thematic concerns, and engagement strategies	Explanation of three artists/ designers with clear understanding of their approaches	basic description of artists/ designers with some understanding but notable gaps	Presents superficial analysis with minimal depth or insight
Theoretical Framework Development	Develops original, framework that connects technological approaches to broader art developments and societal contexts with exceptional insight	Develops a framework with connections to broader contexts	Develops basic framework with limited connections to broader contexts	Presents simplistic framework with minimal connections

Total: 4-5 × 5 = 20 - 25 marks

Marks	Descriptor
5	Explanation identifying multiple senses touch, (1) spatial perception, (1) visual from different angles (1) Specific examples showing clear understanding of 3D engagement. (2)
4	Clear explanation of at least two sensory engagements with supporting examples and good comparison to 2D work.
3	Basic explanation identifying touch and/or spatial perception with limited comparison to 2D work.
2	Limited explanation mentioning a single sense with unclear comparison.
1	Minimal response showing little understanding of sensory differences.

Total: 1 + 1 + 1 + 2 = 5 marks

Marks	Descriptor
5	Precise explanation that time/movement creates 4-D art with an excellent example showing deep understanding of the dimension.
4	Clear explanation of time element with a relevant example demonstrating good understanding.
3	Basic explanation of time component with an acceptable example showing adequate understanding.
2	Limited explanation with unclear or inappropriate examples.
1	Minimal response with major misconceptions about 4-D art.

Total: 1 + 1 + 1 + 2 = 5 marks

Marks	Descriptor
5	Explain identifying specific Ghanaian performances (2) Analyse multiple dimensions (3D, 4D, 5D) within them (1x3).
4	Clear explanation of at least two dimensions in specific Ghanaian performance traditions with good examples.
3	Basic explanation identifying one dimension beyond 3D in Ghanaian performances with some examples.
2	Limited explanation with vague references to Ghanaian performances.
1	Minimal response showing little understanding of either dimension or Ghanaian performances.

Total: 2 + 1 + 1 + 1 = 5 marks

APPENDIX: ASSESSMENT RUBRIC FOR NFT TRADITIONAL ART PROJECT

Criteria	Excellent (3-4 marks)	Very Good (2-3 marks)	satisfactory (2)	Needs Improvement (1-2 marks)
Research	Shows thorough understanding of both NFTs and the traditional art form. Includes specific examples and relevant cultural context.	Shows basic understanding of NFTs and the traditional art form. Some examples provided.	Shows some form of understanding of NFTs and the traditional art form. Some examples provided.	Limited understanding of either NFTs or the traditional art form. Few or no examples.
Cultural Respect	Carefully considers how to preserve cultural meanings and respect traditions when creating digital versions. Clear benefits for the cultural community.	Shows some consideration on how to preserve cultural meanings and respect traditions when creating digital versions. Clear benefits for the cultural community.	Briefly considers how to preserve cultural meanings and respect traditions when creating digital versions. Clear benefits for the cultural community.	Little attention to cultural meanings or community benefits when digitizing traditional art.
Practical Plan	Detailed, realistic plan for creating and selling NFTs that addresses technology limitations in Ghana.	Workable plan for creating and selling NFTs with some consideration of local challenges.	Non workable plans for creating and selling NFTs with some consideration of local challenges.	Vague or unrealistic plan that doesn't address practical challenges in the Ghanaian context.
Infographic	Clear, visually appealing presentation with well-organized information that effectively communicates key ideas.	unclear, visually unappealing presentation with poorly organised information that effectively communicates key ideas.	Quite poorly conceived poorly organised or visually confusing presentation.	Difficult to understand, poorly organized or visually confusing presentation.

SECTION 4: ASPECTS OF ART CRITICISMS

STRAND: AESTHETICS AND CRITICISM

Sub-Strand: Making Judgements

Learning Indicators: *Employ aesthetic questioning, formal, historical and contextual analysis as vocabulary in art criticism.*

Content Standard: Demonstrate understanding of aesthetic questioning, formal, historical and contextual analysis as vocabulary in art.

SECTION INTRODUCTION AND SUMMARY

Over the next three weeks, learners explore how key parts of art and design work together, using different multimedia tools that suit various learning styles. These may include videos, pictures, short texts, and interactive activities to help learners understand and think more deeply. As the lessons go on, learners take part in practical tasks such as group discussions about selected artworks, creating idea maps in groups, and writing short personal reflections on their own work. Teaching moves from guided class discussions to more hands-on and project-based work. This helps learners become more independent and confident in their thinking. Assessment looks at how well learners can explain their ideas and understand different cultural views. They are encouraged to think clearly and carefully about both their own work and the work of others. These activities help them build strong skills in looking at and understanding art. The section ends with group critiques, idea mapping, and personal reflections, giving learners the chance to show what they have learned. The teaching methods support clear thinking, respect for other cultures, and help learners develop useful skills for the wider world.

The weeks and the indicators covered by the section are:

- **Week 15** - *Identify and explain various aspects of art criticism.*
- **Week 16** - *Analyse and articulate stages of art criticism.*
- **week 17** - *Apply criticism to their own works and art and design in general.*

Recap indicators for the section are:

Year 1	Week 5: Identify and categorise elements and constitutions of artistic content and forms. Week 6: Analyse the combination of artistic form and content to make artistic decisions.
Year 2	Week 5: Discuss various aesthetic theories. Week 6: Analyse aesthetic theories and their contexts of application. Week 7: Apply aesthetic theories in the analysis of art and design works.

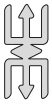
SUMMARY OF PEDAGOGICAL EXEMPLARS

This art criticism unit uses a variety of teaching methods to support different learning needs while promoting critical thinking skills. We start with discussions that introduce key concepts like aesthetic questioning and formal analysis, ensuring everyone participates and has access to resources. Learners work in diverse groups, balancing gender, learning styles, and cultural backgrounds to explore critical processes while respecting indigenous knowledge. They also create visual tools like mind maps and charts to track their analyses and represent various cultural viewpoints. We use multimedia resources, such as videos and photographs, to accommodate visual and hearing impairments. The unit transitions from group analysis of public artworks to individual critique of personal pieces, encouraging independent critical thinking. Throughout, we consider factors like gender representation and sociocultural backgrounds to ensure all learners engage meaningfully with the material and develop their critical reasoning skills across different artistic traditions.

SUMMARY OF ASSESSMENT STRATEGIES

This section uses advanced assessment strategies aimed at developing higher-order thinking skills (Levels 3 and 4). Learners are evaluated on their ability to apply critical frameworks strategically and show extended analytical reasoning. Formative assessments include observing group discussions, reviewing mind maps and charts, and monitoring group research to assess understanding of critical methods. Performance tasks focus on applying critical sequences, such as aesthetic questioning, formal, historical, contextual analysis, and audience response, to artworks. Group critiques assess both shared understanding and individual input, while personal artwork analysis shows independent application of frameworks. Assessments are inclusive, allowing varied response formats and valuing diverse cultural perspectives. Criteria emphasise structured reasoning, connections between visual elements and context, and cultural and artistic insight. Overall, assessment methods include scenario tasks, research and documentation, idea development, media testing, and full project completion. These approaches ensure

learners develop strong critical, analytical, and culturally informed skills in both individual and collaborative work.



Note

A variety of assessment modes should be implemented to evaluate learners' understanding and performance in the concepts covered in this section. It is essential for teachers to conduct these assessments regularly to track students' progress effectively. You are encouraged to administer the recommended assessments each week, carefully record the results, and submit them to the Student Assessment Portal (SAP) for documentation. The assessments are;

Indicators	DOK Level	*Assessment Strategy and/or Mode*
Identify and explain various aspects of art criticism.	4	Group Research – (Role Playing: Expert Analysts)
Analyse and articulate stages of art criticism.	4	Group Presentation
Apply criticism to their own works and art and design in general.	4	Case Study Critical Portfolio Development Research

WEEK 15

Learning Indicators: *Identify and explain various aspects of art criticism*

FOCAL AREA: ART CRITICISM AND FRAMEWORKS FOR AESTHETIC EVALUATION

ART CRITICISM

Art criticism is how we carefully look at, think about, and judge artwork. It helps us understand not just if we like a piece of art, but why it matters and what it means. When we use art criticism, we look at:

- How the artwork looks and makes us feel
- What it means in its culture and community
- How it affects people who see it

Art criticism provides clear steps for understanding and discussing art beyond simple likes or dislikes. It helps explain an artwork's strengths, meaning, and audience response. This is especially useful when studying Ghanaian art, such as Adinkra, Ga Samia, Dzesiwo symbols, or regional sculptures. It deepens appreciation of traditional art and connects it to global practices. By using art criticism, we show respect for our culture and learn to discuss our art in meaningful ways with a wider, international audience.

- **Descriptive Criticism**: Concentrates on what is visually present in the artwork, offering an objective account of its elements.
- **Interpretive Criticism**: Seeks to uncover deeper meanings and messages conveyed by the artist.
- **Evaluative Criticism**: Judges the quality and effectiveness of the artwork in achieving its purpose.



Figure 15.1: *Paul Klee. Original Title: Burg und Sonne. 1928. oil. Private Collection* Castle and Sun, 1928

Source: https://www.wikiart.org/en/paul-klee/castle-and-sun-1928

Figure 15.1 shows a painting of an abstract cityscape composed of geometric shapes in different colours. The image features a patchwork of rectangles, squares, and triangles in reds, yellows, greens, and blues, arranged to resemble buildings and rooftops. The background is a deep reddish-brown, and a large, textured orange circle is in the upper right.



Figure 15.2: *Kente Cloth ca. 20th century.*

Source: *https://www.redbubble.com/i/sticker/Kente-Cloth-Design-by-Firsttees/36730705.EJUG5?epik=dj0yJnU9Z1VWZVdpb0RSelU2TDNJWnhYNFFTOEJPYzBQNVZING8mcD0wJm49eXpWekk5cUpXdTdiaGZkdzV5T1NoZyZ0PUFBQUFBR2hBTG9V&ref=shop_grid*

Figure 15.2 shows a picture of a woven textile pattern made up of repeating geometric shapes. The design features squares and rectangles filled with zigzags, triangles, and checkerboard patterns. The dominant colours are bright yellow-orange, green, black, blue, and purple. This textile resembles traditional African Kente cloth, known for its bold patterns and symbolic meanings.

Aspects of art Criticism

These approaches work together to create a well-rounded art criticism that respects universal principles and cultural values. They help us explore art deeply, build connections with artworks, and develop critical thinking. This leads to a balanced understanding of local and global artistic expressions. They include:

Aesthetic Questioning

Aesthetic questioning asks simple but important questions. As the first step in art criticism, it helps us explore what "good art" means and why views may differ. It encourages us to consider both traditional values and modern global ideas to appreciate art from varied perspectives, rather than judging all works by the same standards.

- **What is Beauty?**: Investigates subjective and objective standards of beauty in art.
- **Emotional Resonance**: Explores how art provokes feelings such as awe, joy, or sadness.
- **Universality vs. Individuality**: Questions whether aesthetic values are universal or culture-specific

Formal Analysis

Formal analysis focuses on the physical and visual elements of an artwork, offering insights into its design and craftsmanship by examining the visual elements and principles that constitute an artwork's physical presence.

- **Elements of Art**: Examines line, shape, colour, texture, space, and value.
- **Principles of Design**: Analyses balance, rhythm, emphasis, unity, and contrast.
- **Techniques and Media**: Investigates the materials and methods used in creating the artwork.

Historical Analysis

Historical analysis evaluates an artwork within the culture of its time, linking it to historical events, movements, and innovations during the period it was made, considering how it reflects, responds to, or challenges the ideas in which it was created.

- **Period and Style**: Identifies the artwork's stylistic characteristics and its alignment with artistic movements.
- **Artist's Background**: Considers the life and experiences of the artist that influenced the work.
- **Historical Impact**: Assesses how the artwork reflects or has influenced its historical period.

Contextual Analysis

Contextual analysis examines external factors that influence the creation and interpretation of artworks, situating the art within its broader cultural, social, political, and economic contexts. by investigating how artworks function within specific communities, convey cultural values, or address societal concerns.

- **Cultural Context**: Explores traditions, rituals, and values shaping the artwork.
- **Social and Political Influences**: Considers how societal and political events affect artistic expression.
- **Reception and Legacy**: Investigates how audiences from different periods and cultures perceive the artwork.

Audience Judgement

Audience judgment in art criticism comes when a viewer forms their own opinions about an artwork after carefully looking at it and thinking about it. It is when we decide what we think about an artwork based on everything we have learned.

After examining the artwork's colours and shapes (formal analysis), learning about when it was made (historical analysis), and understanding its cultural meaning (contextual analysis), we get to make our judgment about it. This judgment might include:

- Do you think it's a successful artwork? Why or why not?
- What do you appreciate most about it?
- Does it effectively communicate its message or purpose?
- How does it compare to other similar artworks?
- Would different people or communities view this artwork differently?

For example, after studying an Indigenous African sculpture, you might judge that it is powerful because of its strong shapes and cultural significance, even if it is not your favourite style.

Everyone's judgment of a particular artwork may differ based on their own experiences, cultural background, and personal taste. What is important in art criticism is that judgment is thoughtful and based on careful observation and analysis, not just quick reactions like "I like it" or "I don't like it." A good audience judgment respects the artwork's cultural context while also allowing for our response to it.

Learning Task

Class Project (*to be done in small groups*): Art Criticism in Community Context

Duration: 2 hours

Project Brief and Theme: "Critical Voices: Art for Community Change"

This project has two components:

1. Create a simple artwork addressing an issue in your community using any available materials or digital tools
2. Apply art criticism approaches to analyse your work

Project Structure

Phase 1: Introduction to Art Criticism (20 minutes)

1. Brief overview of the five aspects of art criticism:
   - **Aesthetic Questioning:** Initial reactions and questions
   - **Formal Analysis:** Examining visual elements and principles
   - **Historical Analysis:** Placing the work in historical context
   - **Contextual Analysis:** Understanding social and cultural contexts

- **Audience Judgment:** Evaluating the effectiveness and impact

2. Provide a simple reference chart with key questions for each aspect

Phase 2: Community Issue & Planning (15 minutes)

1. Identify a community issue you want to address through art
2. Create a quick sketch or plan for your artwork
3. Consider how visual elements can help communicate your message
4. Select appropriate materials or digital tools

Phase 3: Artwork Creation

Create a simple artwork addressing your chosen community issue using any materials or digital tools.

Material Options

- **Traditional Art Materials**
  - Drawing media (pencils, charcoal, ink, markers)
  - Painting supplies (watercolour, acrylic, poster paint)
  - Collage materials (magazines, photographs, found papers)
  - Mixed media (fabric, natural materials, recycled items)
  - Clay or modelling materials
  - Printmaking materials

- **Digital Options**
  - Digital drawing/painting applications
  - Photo editing software
  - Graphic design tools
  - Digital collage techniques
  - Animation (simple)
  - Video or sound elements

- **Unconventional Materials**
  - Found objects from the community
  - Natural materials (leaves, seeds, soil)
  - Recycled materials
  - Food-based materials (coffee, tea stains)
  - Textile elements

Phase 4: Art Criticism Application (25 minutes)
Apply art criticism approaches to your own work by answering these questions:

1. **Aesthetic Questioning**
   - What is your first impression of your work?
   - What questions come to mind when looking at it?

2. **Formal Analysis**
   - How did you use colour, line, shape, texture, etc.?
   - How does the composition support your message?
   - How do your material choices affect the visual impact?

3. **Contextual Analysis**
   - How does your work reflect the community context?
   - What influenced your creative and material choices?
   - How do the materials connect to your message?

4. **Audience Judgment**
   - How effectively does your work communicate its message?
   - What impact might it have on viewers?
   - How do your material choices enhance or affect this impact?

Phase 5: Gallery and Discussion

1. Display artworks together (physical display or digital sharing)
2. Brief sharing of works and insights from the criticism process

Example Community Issues

- Environmental concerns
- Public spaces and accessibility
- Cultural heritage preservation
- Social inclusion
- Health and wellness
- Educational opportunities

Assessment Criteria

Criteria	Points	Satisfactory (1–3)	Very good (4–7)	Excellent (8–10)
Artwork Execution	10	Creates a simple artwork with basic visual elements	Creates a clear artwork with effective use of materials and techniques	Creates a compelling artwork with outstanding technical skill and visual impact
Critical Analysis	10	Applies minimal art criticism approaches with limited insight	Applies art criticism approaches with reasonable depth and understanding	Demonstrates sophisticated critical thinking with insightful connections across all aspects
Community Relevance	10	Shows basic connection to a community issue	Shows clear engagement with a meaningful community issue	Shows profound understanding of a significant community issue with nuanced perspective

Differentiation Strategies

- Provide a variety of material options
- Allow for choice between manual and digital approaches
- Offer simplified art criticism questions if needed
- Allow for verbal responses
- Provide examples of community-focused art

PEDAGOGICAL EXEMPLARS

- Initiating Talk for Learning: Discuss in class the concept of:
  - Aesthetic Questioning
  - Formal Analysis
  - Historical Analysis
  - Contextual Analysis
  - Audience Judgement

as basic aspects of art criticism.

- *Structuring Talk for Learning:* In convenient groups, research, document, and explain basic procedures in various aspects of art criticism.
- *Managing Talk for Learning/Project-Based Learning:* Create mind maps, charts and tables of what to look for in selected objects/artworks as requirements in art criticism.

KEY ASSESSMENT

Level 4: Group Research

Note

Refer to the research work at the learning task on Art Criticism in Community Context

PLC SESSION 15

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).

Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***group research***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the research (NTS 3k-3q).

10 minutes	Content Exploration

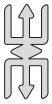
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).
8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).
9. Remember to
   a. transfer your chats into your learning planner template.
   b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).
   c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 16

Learning Indicators: *Analyse and articulate stages of art criticism*

FOCAL AREA 1: STAGES OF ART CRITICISM

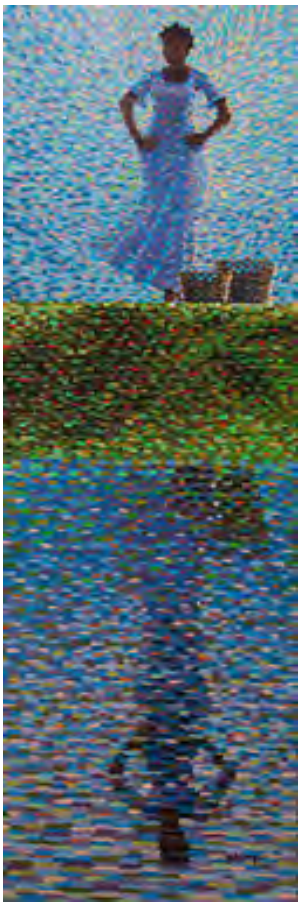


Figure 16.1: *Betty Acquah. Great Expectations III. 2021.*

Source: *https://www.berjartgallery.com/artists/35-betty-acquah/works/9449-betty-acquah-great-expectation-iii-2021/*

Figure 16.1 shows a painting of a woman standing on grass near two buckets, with her hands on her hips. She is wearing a long blue dress and a hat. The scene is reflected in water below her, creating a mirror image. The entire artwork is composed of many small, colourful brushstrokes, giving it a pointillist or mosaic-like texture. The upper half is dominated by blue sky and the woman, while the lower half is mostly the water's reflection.

Figure 16.2 shows a picture of a wooden sculpture (figure) placed against a deep red background. The figure is abstract and elongated, with exaggerated proportions. Its right arm is extended straight out to the side, pointing with a finger, and it holds a small set of scales. The left arm is bent and carved with the outline of a large foot. The body and limbs are made from light-coloured wood, with some dark accents and carved details, including a stylised face with a helmet-like head.



Figure 16.2: *Kofi Setordji, The Call for Justice, 1997.*
Source: *https://sullivanthoughts.wordpress.com/2010/05/06/blog-7-kofi-setordji/*

Stages of Applying Various aspects in Art Criticism

Stage	Component / Aspect	Two-dimensional Art	Three-dimensional Art
1	Aesthetic Questioning	Look at the artwork and ask initial questions What is your first impression? What feelings does it create? What questions come to mind? Does it remind you of anything?	Walk around the 3D artwork / sculpture / installation if possible What is your first impression from different angles? How does the artwork make you feel in the space? Does the scale of the work affect your experience? How does the surrounding environment interact with the piece?

Stage	Component / Aspect	Two-dimensional Art	Three-dimensional Art
2	Formal Analysis	Examine the visual elements closely: **Lines**: Are they straight, curved, thick, or thin? **Shapes**: What geometric or organic forms do you see? **Colours**: What colours are used? How do they work together? **Texture**: How would the artwork feel if touched? **Space**: How is the space organised? Is it balanced? **Composition**: How are elements arranged?	Examine the three-dimensional elements: **Form**: What 3D shapes make up the artwork? **Mass** and **volume**: Does it feel heavy or light? **Material**: What is it made from? (wood, metal, found objects, etc.) **Texture**: How do surfaces appear? Smooth, rough, polished? **Space**: How does it occupy space? Is it solid or does it have openings? **Light** and **shadow**: How do these interact with the form? **Base, plinth or mounting**: How is it presented or installed?
3	Historical Analysis	**Research** when and where the artwork was created **Learn** about the artist and their background **Understand** what was happening in society at that time **Identify** the art movement or tradition it belongs to **Consider** how it relates to other artworks from the same period	**Research** when and where the object was created **Learn** about the artist's techniques and influences **Understand** what materials were available or commonly used in that period **Consider** how it relates to 3D/ sculpture traditions or innovations of its time **Identify** if it was created for a specific location or purpose
4	Contextual Analysis	**Explore** the cultural significance of the artwork **Identify** any symbols or meanings that might not be obvious **Consider** the purpose of the artwork (religious, decorative, political) **Examine** how it reflects the values of its culture **Think** about how different communities might interpret it	**Consider** how the location affects the meaning (especially for installations) **Explore** cultural meanings of the materials used **Examine** how viewers are meant to interact with the piece **Think** about whether it was meant to be permanent or temporary **Consider** environmental factors that might affect the work over time **Identify** any cultural symbols or references in the three-dimensional form

Stage	Component / Aspect	Two-dimensional Art	Three-dimensional Art
5	Audience Judgment	**Form** your own opinion based on all previous steps **Evaluate** the artwork's strengths and weaknesses **Consider** if it successfully achieves its purpose **Compare** it to other similar artworks **Explain** why you value certain aspects of the work	**Evaluate** how effectively the work uses three-dimensional space **Consider** how your physical experience of the work affects your judgment **Assess** how the choice of materials contributes to its meaning **Determine** if the scale and placement are appropriate for its purpose **Form** your opinion based on both visual and spatial experiences
	Noteworthy Reminders	These steps build on each other to create a complete understanding of the artwork. Your final judgment should be thoughtful and based on careful observation and analysis, not just your initial reaction.	With 3-dimensiomal objects, your physical relationship to the artwork is especially important. Moving around the piece, seeing it from different angles, and experiencing how it exists in space are all crucial parts of understanding and judging three-dimensional art.

Learning Tasks

Class Project: Community Art for Critical Reflection

Duration: 2 hours

Project Brief

Theme: "Visualizing Community Concerns"

This project focuses on creating an effective artwork that addresses a specific community issue, which will later be used for critical analysis.

Project Structure

Phase 1: Community Issue Exploration

1. Identify specific community issues that could be addressed through art:
   - Environmental concerns (pollution, waste management)
   - Public spaces (accessibility, beautification, safety)
   - Cultural heritage (preservation, celebration)
   - Social concerns (inclusion, equity, representation)
   - Local resources (access, distribution)

2. Select one issue that resonates with you personally

Phase 2: Artwork Planning

1. Choose one of these suggested artwork types:
    - Symbolic Poster: A bold, graphic representation using symbols to convey your message
    - Community Portrait: A representation of community members affected by the issue
    - Before/After Scene: A visual showing current situation and potential improvement
    - Map-Based Work: A creative map highlighting aspects of the community issue
    - Visual Metaphor: An image using metaphor to represent the community concern
2. Sketch a simple plan for your chosen artwork type

Phase 3: Artwork Creation

Create your artwork using any available materials (manual or digital).

For Symbolic Poster

- Use bold colours and simple shapes
- Include minimal text if needed
- Focus on clear, recognisable symbols
- Consider contrast and visual hierarchy

For Community Portrait

- Represent community members authentically
- Consider expression and body language
- Use background elements to provide context
- Think about whose story is being told

For Before/After Scene

- Create clear visual distinction between scenarios
- Use composition to show relationship between images
- Consider colour and mood to enhance message
- Include environmental details that support your point

For Map-Based Work

- Start with a simple outline of your community area

- Use symbols, colour coding, or patterns to show data
- Include a simple key or legend
- Highlight problem areas or potential solutions

For Visual Metaphor

- Choose a strong central image
- Consider symbolic colour choices
- Use scale and proportion to emphasize importance
- Create visual connections between elements

Phase 4: Finalization

1. Add final details to strengthen your message
2. Ensure your artwork clearly communicates about the community issue
3. Add a simple title if appropriate
4. Prepare to display your work

Materials Options

Manual Options

- Drawing materials (paper, pencils, markers, charcoal)
- Painting supplies (watercolours, poster paint, brushes)
- Collage materials (magazines, photographs, coloured paper)
- Mixed media (fabric scraps, natural materials, found objects)

Digital Options

- Drawing/painting apps or software
- Photo editing tools
- Graphic design applications
- Digital collage tools

Assessment Criteria (30 Points Total)

Criteria	Points	Basic (1–3)	Proficient (4–7)	Excellent (8–10)
Communication	10	Basic representation of the community issue	Clear communication about the community issue	Powerful, compelling visual message about the issue
Visual Elements	10	Simple use of visual elements (colour, line, shape)	Effective use of multiple visual elements	Sophisticated use of visual elements that enhance meaning
Technical Execution	10	Completes a basic artwork using chosen materials	Shows competent control of materials and techniques	Demonstrates skilful use of materials with attention to detail

Example Artworks

1. **Symbolic Poster: "Water Access"**
   - Bold blue droplet symbol with neighbourhood map inside
   - Contrasting colours showing areas with/without clean water
   - Simple visual hierarchy emphasising inequality

2. **Community Portrait: "Market Vendors"**
   - Representation of local market sellers affected by economic changes
   - Expressive faces showing determination and concern
   - Contextual background showing market conditions

3. **Before/After Scene: "Community Garden"**
   - Split composition showing vacant lot and potential garden
   - Colour contrast between grey urban space and vibrant garden
   - Details showing community participation and benefits

4. **Map-Based Work: "Safe Routes"**
   - Simple neighbourhood map highlighting dangerous intersections
   - Color-coded paths showing safe versus hazardous routes to school
   - Visual indicators of needed improvements

5. **Visual Metaphor: "Breaking Barriers"**
   - Central image of hands breaking through a wall
   - Symbolic colours representing different community groups
   - Background elements showing community resources and opportunities

Differentiation Strategies

- Provide templates for different artwork types
- Allow choice of manual or digital creation
- Offer collaboration options for those who benefit
- Provide visual examples for reference

Inclusive Considerations:

- Pair students with different abilities
- Include local Ghanaian artworks alongside international examples
- Provide both written and verbal response options
- Ensure physical accessibility around 3D artwork stations

PEDAGOGICAL EXEMPLARS

- *Initiating Talk for Learning:* In class, explain the appropriate sequence of events in the application of the various aspects of art criticism. Example: Aesthetic questioning-Formal Analysis-Historical analysis- Contextual Analysis, - Audience judgement-etc.

  Consider gender, associations to themes and contextual use of art and design works, as well as use of examples of art and design works in the school and local community.

- *Experiential Learning:* In class discussion, watch videos/photographs on the hierarchy of sequence and relationships of the various aspects of art criticism in a series of artworks. Consider gender, associations to themes and contextual use of art and design works, as well as use of examples of art and design works in the school and local community environment. Make provision for learners with visual and hearing challenges as well as body types
- *Managing Talk for Learning; Group Work/Collaborative Learning:* In convenient groups, select popular public artwork and apply hierarchy of sequence and relationships of the different aspects of art criticism

KEY ASSESSMENT

Level 4: Group Presentation

1. When studying a traditional Kente cloth, which order of steps would help you understand it best?
   - **A.** Looking at colours and patterns → Asking if it's beautiful → Learning when it was made → Understanding its cultural meaning
   - **B.** Learning when it was made → Understanding its cultural meaning → Looking at colours and patterns → Asking if it's beautiful
   - **C.** Asking if it is beautiful → Looking at colours and patterns → Learning when it was made → Understanding its cultural meaning
   - **D.** Understanding its cultural meaning → Learning when it was made → Asking if it's beautiful → Looking at colours and patterns
2. How do formal analysis and contextual analysis work together when studying an African sculpture? A)
   - **A.** The materials used tell us about the resources in the artist's community
   - **B.** The weight of the sculpture tells us how beautiful people thought it was
   - **C.** The artist's personal life determines what shapes and colours they used
   - **D.** The size of the sculpture tells us how important it was in history
3. A critic notices that a painting uses complementary colours to create tension while showing a political protest. This combines which parts of art criticism?
   - **A.** Aesthetic questioning and historical analysis
   - **B.** Contextual analysis and audience judgment
   - **C.** Historical analysis and audience judgment
   - **D.** Formal analysis and contextual analysis
4. When studying an artwork that changes based on how viewers interact with it, which approach becomes most difficult?
   - **A.** Formal analysis, because what you see keeps changing
   - **B.** Historical analysis, because the artwork only exists right now
   - **C.** Contextual analysis, because the meaning changes with each interaction
   - **D.** Aesthetic questioning, because beauty is not the main point of the experience

5. A student says, "The rough surface of this sculpture contradicts what it represents, creating an interesting tension." This shows what level of thinking?

A. Connecting how something feels and what it means

B. Understanding that texture is an important element in art

C. Making complicated theories about the sculptor's personal life

D. Simply identifying the texture without explaining why it matters

6. When analysing colonial-era pictures of Ghanaian culture, which approach best addresses power imbalances?

A. Judging the artwork based only on today's ethical standards

B. Formal analysis focusing on composition and colour schemes

C. Aesthetic questioning, examining what different cultures find beautiful

D. Historical and contextual analysis to examine social and political factors

7. Which statement shows the most thoughtful judgment of an artwork?

A. "I don't like this artwork because I don't like the colours"

B. "This artwork is good because it follows the rules of composition"

C. "The technique is impressive, but portrays women in stereotypical ways"

D. "This artwork must be important because it is in a famous museum"

8. When comparing two masks from different Ghanaian traditions, what critical approach would provide the most balanced understanding?

A. Formal analysis focusing only on which mask uses more interesting patterns

B. Historical analysis determining which mask tradition developed first

C. Formal, historical and contextual analyses to understand both traditions

D. Aesthetic questioning to determine which mask is more visually appealing

9. A student notices that a contemporary artwork uses traditional techniques but addresses modern issues. This observation best demonstrates:

A. The link between historical and contextual aspects of art criticism

B. That formal analysis is more important than contextual analysis

C. The student's personal preference for traditional art techniques

D. That audience judgment should focus mainly on technique

10. How would a critic best analyse an artwork that deliberately breaks traditional rules of composition?

A. Focus only on the artist's background and the new composition

B. Declare it unsuccessful because it doesn't follow established rules

C. Compare it only to other rule-breaking artworks from the same period

D. Analyse how breaking rules creates new meanings and challenges viewers

PLC SESSION 16

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.

2. Use your subject specific app to explore the content before planning. Ask the app to

a. explain the week's concepts in a practical way that will make it easier for learners to understand

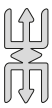
b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).

3. Use your subject specific app to plan your lesson. Ask the app to

a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.

b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)

c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app

a. The key assessment for the week is ***group presentation***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the presentations (NTS 3k-3q).

10 minutes	Content Exploration

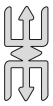
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 17

Learning Indicator: *Apply criticism to their own works and art and design in general*

FOCAL AREA: APPLICATION OF ART CRITICISM

APPLICATION OF VARIOUS STAGES OF ART CRITICISM

Art criticism gives us tools to understand artwork beyond first impressions. Through five key stage, we can systematically explore what makes art meaningful. These five, Aesthetic Questioning, Formal Analysis, Historical Analysis, Contextual Analysis, Audience Judgement can be applied in art criticism on 2-D, 3-D, 4-D and even 5-D artwork.



Figure 17.1: *Murals at Arko-Adjei Interchange, Accra, Ghana, (2020)*

Source: *https://kwamebotchway.medium.com/murals-unveil-accras-brewing-love-saga-between-art-urban-living-gentrification-3d1306434600*

Figure 17.1. This is an outdoor, eye-level photo of a long, vibrant mural painted on the side of a concrete overpass wall. The mural features a geometric, stylized cityscape with bold shapes and a distinct colour palette that changes along its length. On the left side, the artwork is dominated by shades of blue and depicts modern buildings and a large orange and yellow industrial gear. This cool-toned section transitions into a warmer scene on the right, which uses bright oranges, yellows, and pinks to illustrate a different part of the city. An orange, stylized truck appears to drive from the blue industrial area toward the warm-coloured city skyline, connecting the two halves of the artwork.

a) Sample Art Criticism on: Murals at Arko-Adjei Interchange, Accra, Ghana)

Title: Urban Symphony

Artist: Unknown

Medium: Acrylic Paint

Location: Arko-Adjei Interchange, Accra, Ghana

Aesthetic Questioning

The mural asks important questions about how industry affects city life by asking where urban development is ultimately good, or does it have downsides? With its bright colours and lively shapes, the artwork conveys a sense of movement and progress, prompting viewers to reflect on how technology impacts our daily lives.

Formal Analysis

The composition is well-balanced, highlighting a large gear that catches the viewer's attention. Geometric shapes and diagonal lines suggest a sense of movement, reflecting the lively atmosphere of a city. The bright colour palette includes bold blues, yellows, oranges, and purples, creating strong contrasts that make the mural stand out. The use of clean lines and solid colour blocks adds to its clarity and visual impact.

Historical Analysis

Mural art has been used for centuries to express community values and historical events. In Ghana, traditional murals often highlight cultural stories and heritage, while modern urban murals focus on contemporary themes like industry and progress. This particular mural appears to be influenced by street art and industrial design, drawing connections to past artistic movements that celebrated technology, such as Constructivism and Futurism.

Contextual Analysis

The mural is on a wall of an overpass, changing a regular public space into a piece of art. This placement shows a desire to share art with everyone instead of keeping it limited to museums or galleries. It might represent themes of change and growth in cities, which is important for places in Ghana and around the world. The images of gears, buildings, and vehicles highlight the constant movement and change in city life.

Audience Judgement

Different people will see this mural in different ways. Some may think it shows the growth of cities in a good light, while others might see it as highlighting the issues that come with industrialisation. The bright colours and clear design attract many viewers, including learners, workers, and commuters who see it every day. Because it is in a public space, it gets people talking about the importance of art in daily life.



Figure 17.2: *The Oguaa Crab, Cape Coast, Ghana, ca. 20th Century.*
Source: *https://onuaonline.com/the-oguaa-k%C9%94t%C9%94-gold-for-the-indigenes-of-cape-coast/*

Figure 17.2. This is a low-angle photograph of a large, colourful statue of a crab sitting atop a stone monument. The crab sculpture has a purple shell, a brownish-orange body, and large white claws raised in a defensive position. It is perched on several large, dark grey rocks that rest on the monument's wide, rectangular pedestal made of beige, marble-like tiles. A dark plaque with golden text is centred on the front of the pedestal, indicating who donated the monument. The entire statue is set outdoors against a bright blue sky with a few wispy clouds.

Sample Art Criticism on: The Oguaa Crab, Cape Coast, Ghana,

Title of Artwork: Crab Statue

Location: Cape Coast, Ghana, near Kotokuraba Market2

Materials Used: Likely concrete or metal.

Name of Artist: Unknown

Aesthetic Questioning

This crab sculpture is a striking portrayal of marine life, combining realism with artistic skill. Its intricate claws, legs, and shell capture the essence of a crab while the metallic material and sturdy base enhance its visual impact. The sculpture prompts viewers to consider its meaning could it represent local industry, environmental awareness, or cultural heritage? Placed outdoors, it encourages interaction and serves as an inviting piece of public art.

Formal Analysis

The sculpture is well-proportioned and has a strong, dynamic shape that gives it a striking presence. Its metallic finish provides a sleek, modern look that contrasts with the rough texture of the stone or concrete pedestal. The detailed features, like the curve of the claws and the segments of the legs, highlight the artist's skill in metalwork. The pedestal, with its plaque, suggests that the sculpture has an important message or dedication, emphasising its role as a commemorative or symbolic piece.

Historical Analysis

Public sculptures have often been created to honour local heritage, industries, or natural features important to an area. In this case, the crab might symbolise a link to fishing, marine conservation, or the seafood industry, highlighting the community's reliance on marine resources. Many cultures worldwide have made animal sculptures to express their relationship with nature, and this piece carries on that tradition by showcasing the crab as a central figure deserving of attention and respect.

Contextual Analysis

The sculpture is set outdoors, blending seamlessly into the landscape and becoming a landmark for passersby to enjoy. Situated close to buildings, it feels like an integral part of the urban space, highlighting its importance to the local community. The crab, a well-known coastal creature, represents resilience and adaptability, resonating with those from seaside areas. Its raised position on a pedestal enhances visibility, underscoring its significance in the surroundings.

Audience Judgement

The sculpture will likely bring out different reactions based on the viewer's background. Locals might see it as a symbol of their town's history or industry, while visitors could view it as an interesting piece of public art. Its lifelike details and smooth finish make it visually striking, ensuring it stands out as both an artistic and meaningful structure. Whether admired for its craftsmanship or its cultural importance, the sculpture captures attention and encourages reflection.

Learning Task

Class Project: Five-Aspect Criticism of Community Artwork

Duration: 2 hours

Project Brief/Theme: "The Five-Aspect Critic"

This project focuses on using five specific aspects of art criticism to analyse your previously created community artwork, developing a comprehensive critical approach.

Project Structure

Phase 1: The Five Aspects of Art Criticism

Learn the five key aspects of art criticism:

- **Aesthetic Questioning:** Initial reactions and perceptual questions
- **Formal Analysis:** Examining visual elements and principles of design
- **Historical Analysis:** Placing the work in historical and artistic context
- **Contextual Analysis:** Understanding social, cultural, and personal contexts
- **Audience Judgement:** Evaluating the effectiveness and impact on viewers

Phase 2: Artwork Review

1. Display your previously created community artwork and make initial notes about what you notice now that you might not have seen during creation

Phase 3: Five-Aspect Criticism

Apply each aspect of criticism to your community artwork:

Aesthetic Questioning

- What is your immediate reaction to the artwork?
- What questions does the artwork raise?
- What draws your attention first?
- What emotions does the artwork evoke?
- What aspects make you curious or confused?

Formal Analysis

- How does the artwork use elements like line, colour, shape, and texture?
- How is the composition structured?
- What techniques and materials were used?
- How do design principles like balance, contrast, and rhythm function?
- How do formal elements contribute to the overall effect?

Historical Analysis

- How does your artwork relate to artistic traditions or movements?
- What historical influences are evident in your approach?
- How does it compare to historical artworks addressing similar issues?

- How does it reflect contemporary artistic approaches?
- How might this work be viewed in historical context?

Contextual Analysis

- How does the artwork reflect your community's specific context?
- What social, cultural, or political factors influenced your work?
- How does your personal perspective shape the artwork?
- What local circumstances does the artwork address?
- How does the work relate to broader social concerns?

Audience Judgement

- How might different viewers respond to this artwork?
- How effectively does it communicate to its intended audience?
- What aspects might be most impactful for viewers?
- How accessible is the message to diverse audiences?
- How might the artwork influence viewers' perspectives on the issue?

Phase 4: Comprehensive Review

Write a brief integrated critique that connects insights from all five aspects:

- How do these different aspects of criticism work together?
- What new understanding emerged from this multi-faceted analysis?
- How might this critical approach inform future artistic work?

Phase 5: Sharing Critical Insights (5 minutes)

Share one key insight from your critical analysis with the class

Assessment Criteria (30 Points Total)

Criteria	Points	Basic (1–2)	Developing (3–4)	Proficient (5–6)
Aesthetic Questioning	6	States basic reactions	Explores multiple reactions with questions	Develops insightful questions and observations about initial perceptions
Formal Analysis	6	Identifies basic elements	Analyses relationships between multiple elements	Provides comprehensive analysis of formal qualities and their effects
Historical Analysis	6	Makes simple historical connections	Places work in relevant artistic traditions	Demonstrates thoughtful understanding of historical context and influences
Contextual Analysis	6	Identifies basic community context	Explores multiple contextual factors	Shows nuanced understanding of social and cultural contexts
Audience Judgement	6	States simple impact on viewers	Considers varied audience responses	Evaluates effectiveness for diverse audiences with specific evidence

Example Five-Aspect Criticism (For Reference)

Aesthetic Questioning: "My first reaction to my community garden poster is surprise at how the bright colours dominate. I wonder why I'm drawn to the small human figures more than the larger landscape elements.

Formal Analysis: "The composition uses a clear left-right division with a connecting diagonal path. Warm earth tones on the right contrast with cooler, greyer tones on the left.

Historical Analysis: "This work connects to social realist traditions that depicted community struggles and solutions.

Contextual Analysis: "This artwork addresses our community's specific challenge with vacant lots and food access. It reflects current local initiatives for community gardens in underutilised spaces.

Audience Judgement: "Community members familiar with these spaces would likely connect with the specific locations depicted. The clear before/after message makes the concept accessible to diverse viewers.

Differentiation Strategies

- Provide aspect-specific question prompts
- Allow for verbal rather than written criticism

- Offer examples of each aspect of criticism
- Allow for focusing on 3-4 aspects if all 5 are overwhelming

Inclusive Considerations:

- Include artworks representing diverse cultural backgrounds
- Provide reference materials in accessible formats
- Ensure groups have mixed gender representation
- Offer alternative presentation formats for diverse learning needs

PEDAGOGICAL EXEMPLARS

- *Experiential Learning; Group Work/Collaborative Learning:* In group discussion, critique selected artworks with hierarchy of sequence and relationships of the different aspects of art criticism. Example: Aesthetic questioning- Formal Analysis- Historical analysis- Contextual analysis- Audience judgement-etc.
- *Problem-based Learning; Group Work/Collaborative Learning:* Brainstorm with mind maps showing hierarchy of sequence and relationships in the application of the different aspects of art criticism in group presentation.
- *Project-based Learning:* Critique personal artworks with hierarchy of sequence and relationships of the different aspects of art criticism from personal archives.

KEY ASSESSMENT

Level 4: Case Study

Case Study

The Visual Arts Department of your school organised an exhibition to display artworks created by SHS students. After the exhibition, some visitors commented that although many of the artworks were creative, some lacked balance, clear communication of ideas, and proper finishing.

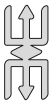
As an SHS 3 Visual Arts student, you have been selected as part of a student review team to critically examine artworks from the exhibition and provide constructive feedback to help artists improve their works.

You are required to study one of your own artworks and one artwork produced by another student. You will apply the principles of art criticism to analyse, interpret, judge, and suggest ways of improving the artworks.

PLC SESSION 17

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***case study***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the assessment (NTS 3k-3q).

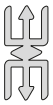
10 minutes	Content Exploration

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

Section 4 Review

This section on art criticism has equipped learners with tools to analyse and interpret artworks. They explored key elements like aesthetic questioning, formal analysis, and contextual analysis, progressively applying these methods in collaborative and individual projects. This shift from documentation to understanding connections reflects an improvement in analytical skills. Learners are increasingly aware of how these components work together to create thorough evaluations. They have begun using various frameworks to analyse both public and personal artworks, fostering deeper criticism that considers both formal qualities and context. Effective teaching strategies, including visual tools, support diverse learning needs and clarify complex relationships. The emphasis on higher-order thinking skills encourages learners to move from basic descriptions to in-depth analysis. Future focus areas include the connections between Western criticism and indigenous Ghanaian methods, as well as integrating technology into critical documentation. Overall, learners are building a solid foundation in art criticism that will enhance their development as creators and critics of visual culture.

APPENDIX: MARKING SCHEMES FOR THE KEY ASSESSMENTS

WEEK 16

Assessment Keys	
1.	C
2.	A
3.	D
4.	A
5.	A
6.	D
7.	C
8.	C
9.	A
10.	D

WEEK 17

Assessment Rubric

Criteria	Excellent (4)	Good (3)	Satisfactory (2)	Needs Improvement (1)
Description of Artwork	Detailed and accurate	Mostly clear	Some details missing	Very limited description
Analysis of Design Elements	Deep understanding shown	Good explanation	Basic explanation	Weak analysis
Interpretation of Meaning	Insightful interpretation	Clear interpretation	Limited interpretation	No clear interpretation
Critical Judgement	Constructive and well supported	Some supporting reasons	Few reasons given	Weak judgement
Reflection on Own Work	Honest and thoughtful reflection	Good reflection	Basic reflection	Very limited reflection
Presentation Skills	Confident and clear	Mostly clear	Some difficulty	Poor communication

SECTION 5: APPLICATION OF COMPUTER-AIDED DESIGN

STRAND: DESIGN FOR LIFE

Sub-Strand: Design Thinking and Composition

Learning Indicator: *Apply knowledge of Computer Aided Design (CAD) to design and execute projects in response to solving social problems*

Content Standard: Demonstrate knowledge and understanding of Computer-Aided Design (CAD) and how to apply it to address societal problems.

SECTION INTRODUCTION AND SUMMARY

Replace this paragraph with this new update, "This section examines the development of Computer-Aided Design (CAD) and its influence on product design across creative industries.

Beginning with basic wireframe technology in the 1960s, CAD has improved design accuracy, reduced costs and supported faster production.

Learners will explore how CAD enables design iterations, teamwork and rapid prototyping.

Emphasis will be placed on the design thinking process: research → ideate → prototype → test → refine.

This process helps learners connect creative ideas with practical and sustainable solutions to real-world problems.

Learners can apply CAD principles using accessible digital tools suited to their learning environment.

Where commercial software is unavailable, Inkscape, GIMP, FreeCAD, Blender and LibreOffice Draw provide free, offline alternatives.

These tools allow learners in resource-constrained schools to undertake similar design activities.

In a practical assignment, learners will apply the design thinking process to develop, test and refine a solution to a real-world challenge.

The activity will develop creativity, critical thinking and problem-solving skills in line with the WAEC assessment framework".. The weeks and the indicators covered by the section are:

Week 18: *Discuss the development of CAD and its impact on product design.*

Week 19*: Use two or more CAD software to design an artwork to solve a problem in society.*

Recap indicators for the section are:

Year 1	Week 8: Explain design concepts in ancient cultures. Week 9: Categorise the social and material conditions that produced design in ancient cultures
Year 2	Week 7: Categorise and discuss major modern design concepts, theories, and schools. Week 8: Analyse social and material conditions that produced designs and products.

SUMMARY OF PEDAGOGICAL EXEMPLARS

This section uses a communication and collaborative approach to help learners critically analyse and express the key differences between traditional and digital design methods. It enhances the meta-cognitive skills needed for Level 4 assessment in creative tasks. Project-Based Learning strategies enhance learners' research abilities and skills in gathering and organising information through collaborative infographic creation. This method aligns with learning objectives that involve discussing the development of CAD and its effect on product design. Visualising this evolution helps reinforce understanding while building digital communication skills. Experiential Learning and Problem-Based Learning strategies create genuine contexts for applying CAD knowledge to tackle real-world challenges. This supports the development of strategic reasoning and advanced critical thinking outlined in the Level 4 assessment, while also encouraging the 21st-century skills mentioned in the Design and Communication Technology vision statement: "critical thinking, creativity, collaboration, and innovation."

SUMMARY OF ASSESSMENT STRATEGIES

The section uses targeted assessment methods to evaluate students' strategic reasoning and critical thinking skills at levels 3 and 4. The main assessment approaches are:

Portfolio Assessment, which involves collecting research findings, reflections, and comparative analyses on CAD development will be used by learners to compile digital and physical evidence showing their understanding of CAD's history and technological impact. The portfolio will include collaborative infographics created during project-based learning, which will assess Level 3 reasoning through structured comparisons. Project-Based Assessment will help learners to take on a practical design challenge that

requires them to use various CAD programmes to tackle a real-world problem. This will result in digital artefacts and a design rationale document that explains their decision-making processes and justifies their design choices. This method assesses Level 4 critical thinking by having learners combine theoretical knowledge with practical application. Peer Assessment will be organised around set criteria, help to learners enhance their evaluative skills while providing useful feedback to one another. Additionally, formative checkpoints will be included to track progress and allow for support before the final evaluation. These strategies ensure that assessments authentically measure both theoretical understanding and practical application of CAD principles.

Facilitators are encouraged to administer the recommended assessments each week, carefully record the results, and submit them to the Student Assessment Portal (SAP) for documentation. The assessments are;

Indicators	DOK Level	Assessment Strategy and/or Mode
Discuss the development of CAD and its impact on product design.	4	Practice Paper 2
Use two or more CAD software to design an artwork to solve a problem in society	4	Project-Based Assessment

WEEK 18

Learning Indicator: *Discuss the development of CAD and its impact on product design*

FOCAL AREA: COMPUTER-AIDED DESIGN

COMPUTER-AIDED DESIGN (CAD)

Computer-Aided Design (CAD) is the use of computer systems and specific software to create, change, analyse, and improve designs. It allows designers to make accurate digital representations of physical objects, from simple 2D drawings to detailed 3D models. CAD has changed the way we create and modify designs in many industries. Its development is a major advancement in design and engineering. CAD continues to grow, adding more features like simulation, analysis, and manufacturing capabilities, which are changing how we approach design.

The Birth and Evolution of Computer-Aided Design (CAD)

Early Foundations (1950s-1960s)

In 1957, Dr Patrick Hanratty developed PRONTO, the first commercial numerical control programming system, earning him recognition as the "father of CAD". A breakthrough followed in 1963 when Ivan Sutherland created Sketchpad at MIT, introducing the revolutionary concept of drawing directly on a display screen. The development of the UNIX operating system in 1969 later provided a crucial platform for CAD advancement.

Commercial Growth (1970s)

The 1970s saw CAD becoming commercially viable with systems like ADAM (Automated Drafting and Machining). By mid-decade, the first 3D wireframe systems emerged, and in 1979, a significant step towards standardisation occurred when Boeing, General Electric and NIST developed the Initial Graphics Exchange Specification (IGES).

Mainstream Adoption (1980s)

The 1980s marked CAD's entrance into mainstream design practice. Autodesk's release of AutoCAD in 1982 made the technology accessible to smaller businesses. Dassault Systèmes created CATIA for aerospace applications in 1983, while Pro/ENGINEER introduced parametric feature-based modelling in 1987, fundamentally changing how designers approached 3D CAD.

Integration Era (1990s-2000s)

The 1990s brought CAD to personal computers with SolidWorks introducing the first Windows-native 3D CAD software in 1993. Internet integration in the mid-90s enabled

collaborative design, while the 2000s saw the emergence of cloud-based solutions and open-source options like FreeCAD.

Modern Innovations (2010s-Present)

Today's CAD systems integrate cutting-edge technologies including virtual reality, augmented reality and artificial intelligence. Mobile applications have made CAD more accessible, while generative design uses algorithms to create optimised solutions automatically.

Key Applications

Modern CAD spans numerous specialisations:

- General design tools like AutoCAD and MicroStation
- Advanced 3D modelling systems including CATIA, SolidWorks and Fusion 360
- Architectural solutions such as Revit and ArchiCAD
- Specialised applications like Rhino and Blender for 3D modelling and animation.
- Accessible open-source options, including FreeCAD

Graphics Software in the Digital Design

Computer-Aided Design (CAD) systems are great for precision engineering; on the other hand, graphics software applications represent essential components in the broader digital design ecosystem. These complementary tools serve distinct purposes whilst enhancing the complete digital design workflow.

Raster-Based Graphics Software

Raster programmes treat images as grids of pixels, making them ideally suited for photo manipulation and digital painting.

Adobe Photoshop (1990): The industry-standard photo editing and digital painting software has become indispensable in design workflows for:

- Creating textures and finishes for 3D CAD models
- Developing concept art prior to CAD modelling
- Post-processing CAD renderings for professional presentations
- Producing technical illustrations from CAD exports

Microsoft Paint (1985): This basic raster editor included with Windows represents an important entry point for simple digital drawing. Though limited in capability, its significance lies primarily in introducing novices to fundamental digital drawing concepts.

Other Notable Raster Applications:

- Corel Painter: Specialised for digital painting with natural media simulation
- GIMP: A powerful open-source alternative to Photoshop
- Sketchbook Pro: Optimised for digital sketching and illustration

Vector-Based Graphics Software

Vector programmes employ mathematical formulas to define shapes, enabling infinite scaling without quality degradation.

CorelDRAW (1989): This professional vector illustration and page layout software creates mathematically defined objects that maintain quality at any scale. Within the design ecosystem, CorelDRAW excels at:

- Creating precise 2D designs and technical illustrations
- Developing logos and graphics for product design
- Preparing vector files for CAD system import
- Finalising technical documentation and presentation materials

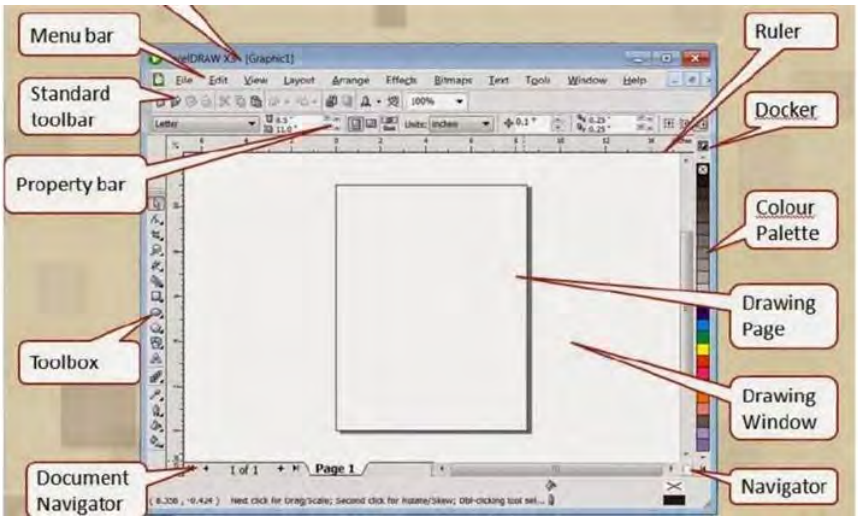


Figure 18.1: *CorelDraw Interface*

Source: *https://www.scribd.com/document/582330875/corel-interface*

Figure 18.1 shows a picture of a CorelDraw interface with various elements clearly labelled, vertically at the left and vertically at the right side of the picture. Labelled at the left side are the Title bar, Menu bar, Standard toolbar, Property bar, Toolbox, and Document Navigator. To the right are the Ruler, Docker, Colour Palette, Drawing Page, Drawing Window, and Navigator.

Adobe Illustrator (1987): The industry-standard vector graphics editor complements CAD by:

- Creating precise 2D designs that can be extruded in CAD

- Developing technical illustrations from CAD exports
- Preparing logos and graphics for product design
- Creating vector paths for CAD extrusion

Other Notable Vector Applications:

1. Inkscape: Free open-source vector graphics editor
2. Affinity Designer: Professional vector design software
3. Vectorworks: Combines CAD capabilities with vector illustration

Differences between CAD and manual rendering

Art and design professionals often balance digital precision with traditional artistry. Computer-Aided Design (CAD) provides accuracy and easy changes through advanced software, while hand drawing allows for creative expression using traditional materials and techniques. Although these methods are different, they often support each other in the design process. Many designers start with hand sketches for conceptual ideas before moving to CAD for technical development.

The following table highlights the key differences between these fundamental design approaches:

Aspect	CAD Rendering	Manual Rendering
Tools Used	Digital software (AutoCAD, SolidWorks, CATIA, Revit, etc.)	Traditional art supplies (pencils, pens, markers, paints, paper)
Precision	Extremely precise with mathematical accuracy	Precision depends on the artist's skill and tools
Modifications	Easy to edit, revise, and iterate without starting over	Major changes often require starting anew
Time Efficiency	Faster for complex designs and revisions	Often more time-consuming, especially for complex designs
Learning Curve	Steep initial learning curve for software mastery	Gradual development of hand skills over time
Dimensioning	Automatic and precise measurements	Manual measurements that may have slight variations
Reproducibility	Perfect copies can be made and shared digitally	Each copy requires separate effort with slight variations
3D Visualization	Can easily create and manipulate 3D models	Requires advanced perspective skills for 3D representation
Collaboration	Easy sharing and collaborative work through digital files	Physical limitations to collaboration on a single rendering

Aspect	CAD Rendering	Manual Rendering
Cost	Higher initial cost for software and hardware	Lower initial cost for basic materials
Artistic Expression	May lack the personal touch and artistic nuance	Showcases individual artistic style and expression
Technical Details	Excellent for precise technical specifications	May sacrifice some technical precision for aesthetic quality
File Storage	Digital storage requires minimal physical space	Physical storage requires space for materials
Scalability	Designs can be scaled up or down without quality loss	Scaling requires redrawing or may lose quality
Integration	Seamless integration with other digital design tools	Limited integration with digital workflows
Data Structure	Parametric models with design history and constraints	No underlying data structure beyond what is visible
Workflow Position	Central to the technical design and engineering phases	Often used in concept development and final presentation
Accessibility	Requires computer access and software knowledge	Accessible with basic art supplies
Power Requirements	Dependent on electricity and computing power	No power requirements
Sensory Experience	Digital interaction via screen and input devices	Tactile experience with physical materials

Learning Task

Digital Design Tools vs Manual Rendering Exploration

Activity Overview

Learners will experience both digital design software and manual rendering techniques through a comparative design challenge.

Duration

90 minutes

Materials

- Drawing paper and pencils/markers
- Computers with basic graphic software (Paint, GIMP) and simple CAD tools (SketchUp Free)
- Simple object to render (geometric sculpture or household item)

Procedure

1. **Introduction** (10 mins)
   - Present the comparison between digital and manual rendering approaches
   - Demonstrate basic techniques for both approaches

2. **Split-Method Design** (40 mins)
   - Divide students into pairs
   - Each pair receives the same object to render
   - One student uses manual techniques, the other uses digital tools
   - Both create a rendering of the same object

3. **Swap and Critique** (20 mins)
   - Learners swap positions and review their partner's work
   - Each identifies three strengths and one limitation of the other method

4. **Collaborative Solution** (15 mins)
   - Pairs collaborate to design a workflow that leverages both techniques
   - Create a brief proposal for how they would approach a new design project using both methods

5. **Reflection** (5 mins)
   - Learners document their observations in their visual diaries
   - Note specific applications where each method might be preferable

Observables (DoK Levels 3 and 4)

Level 3: Strategic Thinking

- Generate a written/pictorial presentation demonstrating how the strengths of both approaches can be combined to solve specific design problems
- Develop a decision-making framework that helps determine when to use digital versus manual techniques based on project requirements

Level 4: Extended Critical Thinking

- Create an innovative workflow that strategically integrates both digital and manual techniques to address a complex, real-world design challenge with unpredictable outcomes

PEDAGOGICAL EXEMPLARS

- *Communication and Collaboration:* Through brainstorming and group discussions, distinguish between CAD and manual rendering using design elements and principles.
- *Project-Based Learning:* In small group discussions, create a chart/infographics on the development of CAD.
- *Experiential Learning:* In small group discussions, enumerate how any of the CAD software can be used to design a product to solve a societal problem.

KEY ASSESSMENT: PRACTICE PAPER 2

Multiple Choice Questions Test

1. The fundamental difference that distinguishes vector graphics from raster graphics is that Vector

A. uses mathematical formulas; raster uses pixel grids

B. supports only CAD files; raster supports all formats

C. uses pixel grids; raster uses formula calculations

D. requires more storage space than raster formats

2. When would manual rendering likely be MORE advantageous than digital tools?

A. Calculating exact measurements for construction documents

B. Producing multiple iterations of complex design modifications

C. Creating highly precise technical specifications for manufacturing

D. Developing quick conceptual sketches during initial ideation

3. How do CAD and graphic software typically interact in modern design workflows?

A. CAD has entirely replaced graphic software in all fields

B. Graphic software creates textures applied to CAD models

C. CAD and graphic files cannot be converted between formats

D. Graphic software is used exclusively for printing CAD files

4. In which design phase might professionals use BOTH CAD and Adobe Illustrator?

A. Developing technical illustrations for presentations

B. Conducting structural analysis of load-bearing elements

C. Creating engineering specifications for manufacturing

D. Programming automated manufacturing instructions

5. The advantage parametric modelling in CAD offer over graphic software is the ability to

A. create photorealistic rendering effects

B. modify designs through feature history

C. share files through cloud platforms

D. print designs at various paper sizes

6. Which represents the correct chronological order of design tool development?

A. Sketchpad → AutoCAD → Adobe Photoshop → Cloud CAD

B. PRONTO → Microsoft Paint → Illustrator → SolidWorks

C. AutoCAD → Photoshop → Sketchpad → Fusion 360

D. MS Paint → CATIA → Illustrator → SketchUp Pro

7. CAD systems and graphic software fundamentally differ in purpose, because CAD

A. operates digitally; graphic software works manually

B. serves professionals; graphic software serves amateurs

C. requires training; graphic software requires no training

D. focuses on precision; graphic software on appearance

8. What TRUE statement describes data structures in CAD versus graphic software?

A. Both use identical parametric modelling structures

B. CAD uses pixel grids; graphic software uses formulas

C. CAD uses parametric models; vector graphics uses curves

D. Both organize information using feature-based techniques

9. Which combination includes BOTH CAD and graphic software tools?

A. AutoCAD and Revit architectural modelling system

B. Adobe Photoshop and SolidWorks modelling system

C. Microsoft Paint and GIMP image manipulation tools D

D. CorelDRAW and Adobe Illustrator vector programs

10. What development emerged in BOTH CAD and graphic software during the 2000s?

A. The introduction of parametric modelling capabilities

B. The development of solid modelling representations

C. Cloud-based solutions enabling remote collaboration

D. The creation of the first graphical user interfaces

Hint

*Conduct **Practice Paper 2**. It should cover contents taught from Year 1 to 3. Refer to the **Table of Specification and Structure of the Paper** at the end of this section. Learners' papers should be marked immediately and scores entered into the STP.*

Item Specification Table (Year 1, Semester 1)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Record and analyse the major indigenous Ghanaian Art periods and artworks in terms of materials, methods of fabrication, uses, and socio-cultural relevance	Multiple choice	1				1
Describe the contributions of the major indigenous Ghanaian Art periods and artworks to the Art history of Ghana	Multiple choice		1			1
Identify and explain the role of materials in the environment as basic media for creative expression in indigenous Ghanaian Art	Multiple choice					
	Essay		1			1
Research and record myths and legends in major indigenous African cultures and their artworks	Multiple choice	1				1
Evaluate the impact of indigenous art work on African cultures	Multiple choice					
Analyse and explain the contributions of indigenous African art to Global art.	Multiple choice					
Describe the art of major ancient cultures with timelines	Multiple choice		1			1
Analyse the impact of artworks from ancient cultures on modern global art	Multiple choice					
	Essay					
Discuss the contributions of ancient art to emerging art traditions	Multiple choice					
	Essay					
Explain design concepts in ancient cultures	Multiple choice	1	1			1
	Essay					
Categorise social and material conditions that produced designs in ancient cultures	Multiple choice					
	Essay			1		1
Explain various sensory perceptions	Multiple Choice					

Art and Design Foundation - Item Specification Table (Year 1, Semester 2)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Differentiate between sensory perception and cultural awareness	Multiple choice	**1**	**1**			**2**
Analyse and explain visuality, meaning-making, and production in relation to art and design.	Multiple choice			**1**		**1**
Explain how design concepts influence the design characteristics of objects and the design.	Multiple choice					
Differentiate between tradition, culture and worldviews in terms of design.	Multiple choice	**1**				**1**
Explain and Analysis visuality, meaning making, as well as design production in relation to art and design.	Multiple choice		**1**			**1**
	Practical					
Identify and categorise elements and constitutions of artistic content and forms	Multiple choice		**1**			**1**
	Essay		**1**			**1**
Analyse the combination of artistic form and content to make artistic decisions	Multiple choice					
Identify and discuss the key elements and principles of art and design	Multiple choice		**1**			**1**
	Essay					
	Practical					
Describe how the elements and principles of art and design are used to generate ideas for artworks	Multiple choice					
	Essay		**1**			**1**
	Practical					
Identify and discuss key elements and stages of design thinking process	Multiple choice					
	Essay					
	Practical					
Identify and explain colour schemes and the mood they express	Multiple choice	**1**				**1**
	Essay					
Analyse pigment colours and that of the spectrum	Multiple choice					
	Essay					
	Multiple Choice					

Art And Design Foundation - Item Specification Table (Year 2, Semester 1)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse and explain the use of pigment colours, spectrum colours and environmental ideas in the creation of artwork	Multiple choice					
Compose appropriate tonal values and hues for forms in drawing	Multiple choice					
Identify and document Modern Ghanaian artists and their artworks from the 1920s to 1985 in relation to materials, methods, and uses	Multiple choice	**1**	**1**			**2**
Evaluate the contributions of Modern Ghanaian Artist and their artworks to the history of Ghana	Multiple choice			**1**		**1**
Classify Modern African art and changes that occurred in art making from 1900 to the 21st Century in relation to materials, methods, and their socio-cultural contexts	Multiple choice					
Analyse the impact of modern African art and design works on society	Multiple choice		**1**			**1**
List and explain Modern Art Movements (periods).	Multiple choice					
	Essay					
	Practical					
Analyse the impact of Western modern art on African art.	Multiple choice		**1**			**1**
	Essay					
	Practical					
Discuss the relationship between Western Modern Art from 1850 to 1950 and modern African art with reference to materials, imagery, and meanings	Multiple choice	**1**				**1**
	Essay					
	Practical					
Categorise and discuss major modern design concepts, theories, and schools	Multiple choice	**1**				**1**
	Essay					
Analyse social and material conditions that produced designs and products.	Multiple choice					
	Essay					
Research materials and modes of production of specific cultural objects	Multiple Choice					

Art And Design Foundation - Item Specification Table (Year 2, Semester 2)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse and explain social conditions as inspirations behind works of art and design	Multiple choice					
Explain materials as repository of cultural memory.	Multiple choice					
Discuss regional material as alternatives to privileged material and for art	Multiple choice		1			1
Analyse art medium and scale in art production	Multiple choice			1		1
Discuss various aesthetic theories	Practical					
Analyse aesthetic theories and their contexts of application	Multiple choice					
Apply aesthetic theories in art and design works	Multiple choice					
Design an info graphic to illustrate the art and design processes.	Multiple choice					
	Essay					
	Practical					
Identify problems in the environment and design strategies to address them	Multiple choice			1		1
	Essay					
	Practical					
Design and execute prototypes as solutions to the problems identified.	Multiple choice					
	Essay					
	Practical			1		1
Identify and explain colour relationships and symbolism in the various Ghanaian cultures.	Multiple choice		1			1
	Essay					
Create art and design works using pigment colours and Colours of the spectrum to reflect colour symbolisms in Ghana	Multiple choice					
	Essay					
	Multiple Choice					

Art And Design Foundation - Item Specification Table (Year 3, Semester 1)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Prepare weaves from natural sources and use harmonious colours to create art and design works	Multiple choice					
Create drawings of figurative representations in the environment	Multiple choice					
Compose appropriate treatments of constituent parts for forms of recognition and abstraction	Multiple choice					
Design and create works with available modern industrial material with appropriate process	Multiple choice		**1**			**1**
Research and document contemporary Ghanaian art in terms of materials, fabrication methods, applications, and educational relevance	Multiple choice	**1**				**1**
Evaluate the contributions of contemporary Ghanaian art and artists to the Ghanaian art scene	Multiple choice					
Analyse and explain the impacts of contemporary Ghanaian art on the Artworld	Multiple choice		**1**			**1**
	Essay					
	Practical					
Categorise and explain contemporary African art.	Multiple choice	**1**				**1**
	Essay					
	Practical					
Discuss the contributions of African contemporary art and artists to art institutions in Africa	Multiple choice					
	Essay					
	Practical					
Analyse and explain the impacts of contemporary African art on the Art world	Multiple choice					
	Essay					
Identify and discuss the major milestones of contemporary art.	Multiple choice		**1**			**1**
	Essay					
Analyse and explain the impacts of modern art on African art	Multiple Choice	**1**				**1**

Art And Design Foundation - Item Specification Table (Year 3, Semester 2)

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Analyse major design concepts in the 21st century	Multiple choice		**1**			**1**
Appreciate and make judgements in debates on 21st – Century Design	Multiple choice					
Categorise ethical issues associated with art and design	Multiple choice					
Discuss human-centred ethical issues in art as well as artistic responsibilities	Multiple choice					
Reflect on material responsibility, environment and emerging advocacy issues	Practical	**1**				**1**
Identify and explain various technology-based art and design works	Multiple choice		**1**			**1**
Differentiate between 3D, 4D, and 5D art forms	Multiple choice					
Analyse and articulate Crypto and Non-Fungible Tokens (NTFs) form of art	Multiple choice					
	Essay					
	Practical					
Identify and explain various aspects of art criticism.	Multiple choice	**1**				**1**
	Essay					
	Practical					
Analyse and articulate stages of art criticism	Multiple choice		**1**			**1**
	Essay					
	Practical					
Apply criticism to their own works and art and design in general	Multiple choice					
	Essay					
Discuss the development of CAD and its impact on product design.	Multiple choice				**1**	**1**
	Essay					
	Multiple Choice					
Identify and explain colour schemes and the mood they express in relation to learners' responses.						
Analyse pigment colours and those of the colour spectrum	Multiple choice	**1**			**1**	**2**

Indicators	Type of Questions	DOK Level				Total
		1	2	3	4	
Create artworks from ideas in the environment using pigment colours and colours of the spectrum						
Organise and create drawings by relating basic contours and forms in simple objects in the environment using non-conventional materials	Essay				**1**	**1**
	Practical				**1**	**1**
Compose appropriate tonal values and hues for forms of resemblance.	Essay		**1**			**1**
Total		**15**	**22**	**6**	**4**	**47**

MCQs	40
Essay	5
Practical	2
Total	47

PLC SESSION 18

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous session, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand.
   b. identify three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q).
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).

Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Use your app to plan and administer the mode of assessment for the Student Assessment Portal (SAP)

a. The key assessment for the week is ***practice paper 2.*** Chat with your app to plan this assessment by reviewing or developing the assessment items/tasks and marking schemes/rubrics for the practice paper (NTS 3k-3q).

10 minutes **Content Exploration**

5. As a subject group, select one problem or topic/idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through the problem individually for 3–4 minutes

c. the group then works through it together the problem, step by step

d. chighlight the most common errors made at each step (NTS 1c, 1e, 2c, 2e, 3e-3j).

Note

- *This part is not 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes **Enactment**

6. Enact a teaching activity based on your learning plan (NTS la-lb, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	**Reflection**

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 19

Learning Indicator: *Use two or more CAD software to design an artwork to solve a problem in society*

FOCAL AREA: APPLICATION OF COMPUTER-AIDED DESIGN

USE OF SELECTED SOFTWARE IN CAD TO DESIGN AN ARTWORK

Project

- Market Stall Design Challenge
- Future Fleet: School Vehicle Concept Redesign

Note

- *These sample tasks (projects) is based on how the knowledge and skills that learners have acquired can be applied to generate a single artwork (solution) will run from weeks 19-24.*
- *For each week the task in the project will be determined by the learning indicator.*
- *Learners are to choose one of the 2 sample projects to work on. (Teachers are to ensure that the selecting of the choice of project is not one sided)*
- *Aside from the 2 sample projects, learners are at liberty to look for other issues in the community and generate solutions for them by using the guidelines provided in the sample projects.*

Learning Task

Classroom Activities: Market Stall Design Challenge

Activity Description

Learners will engage in a collaborative classroom activity focused on designing improved market stalls for local Ghanaian markets. This structured activity builds essential skills that will prepare students for their assessment task on school vendor facilities.

Session 1: Research and Concept Development (90 minutes)

1. **Introduction to Challenge** (15 mins)
   - Present the market stall problem using photos from local markets
   - Discuss challenges: weather protection, durability, storage, display efficiency
   - Share examples of traditional and contemporary market stalls from Ghana

2. **Team Formation and Analysis** (20 mins)
   - Divide the class into design teams of 3-5 students
   - Each team analyses photos of existing market stalls
   - Identify key problems and opportunities using a structured analysis worksheet

3. **Manual Concept Sketching** (45 mins)
   - Teams develop initial concepts through hand sketches
   - Apply advanced perspective techniques learned in the previous related modules
   - Create multiple iterations focusing on:
     - Weather protection solutions
     - Efficient display configurations
     - Storage integration
     - Cultural aesthetics

4. **Peer Feedback** (10 mins)
   - Gallery walk format with sticky-note feedback
   - Teams collect input on their strongest concepts

Session 2: Digital Development with Graphic Software (90 minutes)

1. **GIMP Techniques for Design Development** (15 mins)
   - Demonstrate advanced techniques relevant to market stall visualisation:
     - Creating material textures for local materials
     - Photomontage techniques for context integration
     - Colour scheme development for visual identity

2. **Digital Development** (60 mins)
   - Teams digitise their strongest manual concepts
   - Use GIMP to:
     - Refine the visual appearance with appropriate materials and colours
     - Create before/after comparisons showing improvements
     - Develop simple branding elements for the stall
     - Create atmospheric visualisations showing the stall in use

3. **Technical Planning** (15 mins)
   - Teams identify aspects of their design requiring technical development
   - Prepare reference materials for CAD modelling session

Session 3: Technical Development with CAD (90 minutes)

1. **SketchUp Techniques for Market Stalls** (15 mins)
   - Demonstrate relevant modelling techniques:
     - Creating modular components for repetitive elements
     - Modelling collapsible/foldable structures
     - Generating dimensioned drawings for construction

2. **CAD Development** (60 mins)
   - Teams create technical models of their market stall designs
   - Focus on:
     - Structural integrity and stability
     - Precise dimensions and proportions
     - Assembly and disassembly logic
     - Material specifications

3. **Export and Integration Planning** (15 mins)
   - Generate technical views for the final presentation
   - Plan the integration of all elements into a cohesive presentation

Session 4: Presentation Development and Reflection (90 minutes)

1. **Integrated Presentation Development** (45 mins)
   - Teams combine manual sketches, graphic visualisations, and CAD drawings
   - Create presentation boards showing the comprehensive solution
   - Prepare material and cost specifications

2. **Team Presentations** (30 mins)
   - Each team presents their market stall design to the class
   - 3-minute presentations focusing on key innovations

3. **Reflection and Application** (15 mins)
   - Class discussion on lessons learned from the market stall challenge
   - Individual reflection on how these skills apply to the upcoming assessment task
   - Introduction to the individual assessment on school vendor facilities

PEDAGOGICAL EXEMPLARS

- *Problem-Based Learning:* Through group discussions, discuss how to use two or more CAD software to design an artwork to solve a problem in the society.

  Make provision for level of individual experiences and exposure technology, digital and gaming knowledge as well as gender, economic, learning capabilities and diversity

  Experiential Learning: Working as individuals, use two or more CAD software to design an artwork to solve a problem in the society.

  Encourage learners to recognise levels of individual experiences and exposure technology, digital and knowledge as well as learning capabilities and diversity in looking for solutions to problems in the society

KEY ASSESSMENT

Level 4: Project-Based Task

Integrated Design Thinking Projects One

School Vendor Facility Design

Duration - 5 Weeks (20 Hours)

1. Design Brief

School Vendor Facility Design Brief

Use design thinking, colour theory and conventional drawing strategies to create an integrated facility for scattered school vendors. It should address hygiene, weather protection, waste management and circulation challenges while respecting Ghanaian market traditions.

i. Begin with manual sketches and renderings, develop visual concepts using graphic software (or advanced manual techniques), and create technical documentation through CAD drawings (or precise manual drafting).

ii. Document your complete process, culminating in a physical model and professional presentation materials.

Task Description

Develop an integrated sustainable design solution that demonstrates an understanding of design thinking, colour theory, and application, as well as the relation of forms. The design must address issues such as hygiene concerns, weather protection, waste management, and the improvement of air, material, and human circulation, while respecting indigenous knowledge systems and traditions.

Group Structure

Students will work in groups of 3-5 members. Each member must develop one initial concept rendering in both grayscale and colour, resulting in 3-5 distinct design approaches per team.

Timeline

- **Week 1**: Research, Analysis & Concept Development
- **Week 2**: Design Development & Visualisation
- **Week 3**: Technical Documentation & Prototyping
- **Week 4**: Final Integration & Exhibition

Weekly Tasks

Week 1: Research & Concept Development

Research Phase (Manual)

- Document current vendor locations through photography and mapping
- Create site analysis diagrams showing:
  - Vendor locations and goods sold
  - Student traffic patterns during peak times
  - Sun path, drainage, and existing trees
- Interview at least 2 vendors and 5 students about specific needs
- Identify key problems to address in your design

Concept Generation (Manual)

- Each group member must develop one unique concept addressing the identified problems
- Required drawings per concept:
  - Grayscale plan and perspective sketch showing spatial organisation
  - Colour rendering showing materials, atmosphere and use
- Hold team critique to select two concepts for further development

Deliverable: Research & Concept Portfolio including all individual concepts

Week 2: Design Development

Design Refinement (Manual + Graphic Software)

- Further develop two selected concepts through:
  - Refined plan drawings at 1:100 scale
  - Section drawings showing height relationships
  - Perspective views from multiple angles
- **Graphic Software Application**:
  - Create digital visualisations showing the facility in use
  - Develop material and colour studies
  - Create before/after comparisons
  - Photomontages showing design in context

Design Selection

- Evaluate refined concepts against specific criteria
- Select the final direction with clear justification
- Prepare design rationale document (1 page)

Deliverable: Design Development Package with all refinement work

Week 3: Technical Documentation & Prototyping

Technical Documentation (CAD or Manual Technical Drawing)

- **CAD Application**: Create precise technical drawings, including:
  - Floor plan at 1:50 scale with dimensions
  - Two elevations at 1:50 scale showing materials
  - One section at 1:50 scale showing construction
- Include material specifications and key dimensions
- Show construction details for critical connections

Physical Prototyping (Manual)

- Build a scaled physical prototype (1:20) of the key design element
- Use appropriate materials to demonstrate the construction method
- Test functionality of any moving or modular components
- Document prototype development through photographs

Deliverable: Technical Drawing Set & Physical Prototype

Week 4: Final Integration & Exhibition

Integration (Graphic Software or Manual)

- Create three distinct mood boards:
  - Materials and construction methods
  - Colour scheme and aesthetic approach
  - User experience and functional elements
- Develop an annotated infographic explaining:
  - Key problems identified
  - Design solutions proposed
  - Construction approach
  - Expected benefits

Exhibition

- Design a professional exhibition layout
- Mount all project components with a clear visual hierarchy
- Include a physical prototype as the centrepiece
- Prepare a concise project description (150 words)

Deliverable: Professional Exhibition Display

Software Application Requirements

CAD Application (Week 3)

Students must demonstrate CAD skills through:

- Precise floor plan with accurate dimensions
- Properly scaled elevations showing all elements
- Detailed section showing the construction method
- Proper layering of drawing elements
- Consistent text and dimension styles

Graphic Software Application (Week 2 & 4)

Students must demonstrate graphic software skills through:

- Digital visualisations of design concept
- Photomontages showing context integration
- Professional mood board layouts
- Infographic with multiple information layers
- Consistent typography and visual identity

Alternative Approaches

No CAD Access Alternative

- Create technical drawings manually using:
  - Drawing board with T-square and set squares
  - Scale ruler and technical pens
  - Proper architectural conventions for line weights
- Include a separate sheet demonstrating understanding of:
  - How CAD would benefit specific aspects of the project
  - Which CAD features would be most valuable
  - How CAD would improve accuracy and modifications

No Graphic Software Access Alternative

- Create visualisations manually using:
  - High-quality rendering techniques (markers, coloured pencils)
  - Collage techniques for material representation
  - Hand-lettering for consistent typography
  - Physical material samples for mood boards
- Include a separate sheet demonstrating understanding of:
  - How graphic software would enhance specific visualisations
  - Which digital tools would improve communication
  - How does digital workflow facilitate iterations

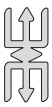
Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Research & Analysis	Comprehensive site analysis with detailed documentation; insightful identification of specific problems; thorough user research	Clear documentation of existing conditions, good analysis of key challenges, adequate user research	Basic site observation; limited problem analysis, minimal user input

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Individual Concept Development	Each member presents a distinctive, well-developed concept; excellent rendering quality in both grayscale and colour; clear spatial thinking	Each member presents a solid concept, good rendering technique, and adequate spatial organisation	Concepts lack clarity or distinction, basic rendering skills, and limited spatial understanding
Design Development	Sophisticated refinement of selected concepts; exceptional visualisation quality; innovative solutions to multiple challenges	Effective refinement process, good visualisations, functional solutions to key problems	Minimal refinement from initial concept; basic visualisations; some problems unaddressed
Technical Documentation	Precise technical drawings with comprehensive dimensioning; excellent attention to construction detail; professional presentation	Accurate drawings with proper dimensions, good construction details, and clear presentation	Basic drawings with some dimensional errors; limited construction information
Prototype Quality	Exceptional physical prototype with excellent craftsmanship; demonstrates key features effectively; innovative use of materials	Well-constructed prototype showing good making skills; demonstrates main functions; appropriate materials	Basic prototype with minimal finishing; limited functionality demonstration
Exhibition Design	Outstanding mood boards and infographics; excellent visual communication; professional-quality display; compelling narrative	Good quality mood boards and infographics; clear visual communication; well-organised display	Basic mood boards and infographics, unclear communication, and disorganised display
Group Collaboration	Exceptional integration of individual contributions; evidence of effective collaborative problem-solving; unified final presentation	Good integration of individual work; evidence of teamwork, cohesive final product	Limited integration, minimal evidence of collaboration, disjointed presentation

Exhibition Requirements

1. **Research Documentation**
   - Site analysis diagrams (minimum 3)
   - Interview findings summary
   - Problem identification visuals
2. **Design Process Display**
   - All initial concept renderings (3-5 sets of grayscale and colour)
   - Development drawings showing refinement
   - Final design visualisations (minimum 4 views)
3. **Technical Documentation**
   - Floor plan (1:50)
   - Two elevations (1:50)
   - Section (1:50)
   - Construction details
4. **Mood Boards** (3 required)
   - Materials and construction
   - Colour and aesthetics
   - User experience
5. **Project Infographic**
   - Problem-solution diagrams
   - Construction approach
   - User scenarios
6. **Physical Prototype**
   - Scaled model of key design element



Note

This project requires students to demonstrate manual skills, digital competencies (where available), and professional presentation abilities while addressing a real community need.

Integrated Art & Design Project Two

Future Fleet: School Vehicle Concept Redesign

Project Brief: Integrated Art & Design Project: Future Fleet

Apply design thinking, colour theory, and spatial relationships to create purely conceptual visualisations that reimagine school vehicles with striking, futuristic design concepts that emphasise intense, tailored and innovative features, and a distinctive brand identity.

i. Begin with manual concept sketches, develop refined visualisations using graphic software (or advanced rendering techniques), create technical drawings using CAD (or precise manual drafting), and a prototype.

ii. Document your complete process, culminating in a physical styling model and professional presentation materials.

Group Structure and Dynamics

Students will work in groups of 3-5 members. Each member must develop one futuristic vehicle concept rendering in both grayscale and colour, reimagining the school's existing transport fleet (bus, trucks, staff cars) for the future.

Project Overview

Create bold, futuristic concept redesigns of the school's current vehicles. These are purely conceptual visualisations with no implementation requirements or cost constraints. Focus on dramatic styling, innovative features, and distinctive brand identity while maintaining the core function of each vehicle.

Timeline

- **Week 1**: Vehicle Analysis & Concept Development
- **Week 2**: Design Development & Visualisation
- **Week 3**: Technical Documentation & Feature Design
- **Week 4**: Physical Model Creation & Exhibition

Weekly Tasks

Week 1: Vehicle Analysis & Concept Development

Research Phase (Manual)

- Document the selected school vehicle through photography
- Create analysis diagrams showing:
  - Current design language and key features
  - Proportions and distinctive elements
  - Opportunities for futuristic enhancement
- Research contemporary automotive design trends and concept vehicles
- Identify key brand elements to maintain in the redesign

Concept Generation (Manual)

- Each group member must develop one unique futuristic concept for the selected vehicle
- Required drawings per concept:
  - Grayscale exterior sketches (side, front, 3/4 view) showing dramatic styling
  - Colour rendering showing innovative materials, lighting, and features
- Hold team critique to select two concepts for further development

Deliverable: Concept Portfolio including all individual futuristic interpretations

Week 2: Design Development

Design Refinement (Manual + Graphic Software)

- Further develop two selected concepts through:
  - Refined exterior drawings emphasising distinctive styling elements
  - Detail sketches of key features (grille, headlights, wheels, etc.)
  - Exploration of colour schemes and surface treatments
- **Graphic Software Application**:
  - Create digital visualisations showing the concept vehicle from multiple angles
  - Develop detailed renderings of signature elements:
    - Front grille and headlight design
    - Custom wheel rim concepts
    - Distinctive bumper treatments
    - Roof/crown design features
  - Create dramatic environmental contexts for the vehicle

Design Selection

- Evaluate refined concepts based on visual impact and brand identity
- Select final direction with clear design rationale
- Develop a cohesive design language across all vehicle elements

Deliverable: Design Development Package with refined concept visualisations

Week 3: Technical Styling Documentation

Technical Documentation (CAD or Manual Technical Drawing)

- **CAD Application**: Create precise styling drawings, including:

    - Orthographic views (side, front, top) at 1:20 scale
    - Detailed drawings of signature design elements:
        - Grille pattern and structure
        - Headlight and taillight design
        - Custom wheel rim detailed design
        - Window graphics and roof treatment
    - Colour and material specification diagrams

Brand Identity Development (Manual or Digital)

- Create a school vehicle fleet branding system:
    - Logo/emblem design for the vehicle
    - Typography and graphic elements
    - Colour scheme with specific paint finishes
    - Application guidelines across different vehicles

Deliverable: Technical Styling Package & Brand Identity System

Week 4: Physical Model Creation & Exhibition

Physical Concept Model (Manual)

- Build a physical styling model (1:18 or 1:24 scale) of the final concept vehicle
- Focus on accurately representing key design features:
    - Distinctive grille and front-end treatment
    - Custom wheel designs
    - Body shape and proportions
    - Surface details and character lines
    - Branded elements and graphics
- Use appropriate materials (clay, foam, card, 3D printing if available)
- Apply final colour scheme and surface finishes
- Mount on a professional display base

Exhibition Integration (Graphic Software or Manual)

- Create three distinct presentation boards:
    - Vehicle Overview: Multiple views of the completely redesigned vehicle

    - Feature Showcase: Detailed views of signature elements (grille, wheels, lights, etc.)
    - Brand Identity: Logo, colour scheme, and application across the school fleet
- Develop an annotated infographic explaining:
    - Design philosophy and inspiration
    - Key innovative features
    - Materials and technology concepts
    - Brand story and identity elements

Deliverable: Physical Concept Model & Professional Exhibition Display

Software Application Requirements

CAD Application (Week 3)

Students must demonstrate CAD skills through:

- Precise orthographic styling drawings showing the concept vehicle
- Detailed component drawings of signature elements
- Proper use of curves and surface treatments
- Accurate proportions and scale
- Technical specification callouts

Graphic Software Application (Week 2 & 4)

Students must demonstrate graphic software skills through:

- High-quality digital renderings of vehicle concept
- Detailed visualisations of key design features
- Professional presentation board layouts
- Brand identity element development
- Consistent typography and visual language

Alternative Approaches

No CAD Access Alternative

- Create technical styling drawings manually using:
    - Drawing board with appropriate tools
    - French curves and templates for complex shapes
    - Consistent line weights to show form
    - Colour rendering techniques for technical views

- Include a separate sheet demonstrating understanding of:
  - How CAD would benefit automotive styling specifically
  - Which CAD features would enhance surface development
  - How CAD would facilitate design communication

No Graphic Software Access Alternative

- Create visualisations manually using:
  - Advanced rendering techniques (markers, coloured pencils, pastels)
  - Consistent light source and reflection treatment
  - Hand-developed typography for branding
  - Manual composition techniques for presentation boards
- Include a separate sheet demonstrating understanding of:
  - How graphic software would enhance concept presentation
  - Which digital tools would improve rendering quality
  - How does digital workflow facilitate design iterations

Exhibition Requirements

1. **Research & Analysis Display**
   - Current vehicle photographs
   - Contemporary design trend examples
   - Initial sketches and ideation
2. **Design Process Display**
   - All initial concept renderings (3-5 sets of grayscale and colour)
   - Development drawings showing design evolution
   - Final concept visualisations (multiple angles)
3. **Feature Showcase**
   - Detailed renderings of:
     - Front grille and headlight design
     - Custom wheel rim concepts
     - Distinctive bumper treatments
     - Roof/crown design features
     - Window graphics and surface treatments

4. **Technical Drawings**
   - Orthographic views (side, front, top)
   - Detailed drawings of key components
   - Colour and material specifications
5. **Brand Identity Display**
   - Vehicle logo/emblem design
   - Typography and graphic elements
   - Colour scheme with paint finishes
   - Fleet application examples
6. **Physical Concept Model**
   - Scaled styling model (1:18 or 1:24)
   - Professional display base
   - Accurate representation of key design features
   - Applied colour scheme and branding

This creative project challenges students to apply advanced styling and visualisation techniques to reimagine familiar vehicles with futuristic design language, focusing on distinctive features and brand identity. The physical model component allows students to translate their 2D concepts into 3D form, demonstrating their understanding of volume, proportion, and detailed execution.

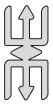
PLC SESSION 19

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.

b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)

c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app

a. The key assessment for the week is ***project-based task***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the project (NTS 3k-3q).

10 minutes	**Content Exploration**

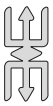
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

Section 5 Review

The section explored the historical evolution of Computer Aided Design from its rudimentary beginnings to contemporary sophisticated systems. Students engaged in collaborative discussions distinguishing between traditional rendering and CAD approaches, analysing fundamental differences in efficiency, precision and workflow. Through project-based learning, groups created informative infographics documenting CAD's developmental milestones and technological advancements.

The section progressed to problem-based learning activities where students identified societal challenges amenable to CAD-based solutions, exploring

how multiple software applications can work in concert to develop innovative products. Assessment strategies targeted both Level 3 strategic reasoning through comparative analysis and Level 4 extended critical thinking through practical application tasks.

Students demonstrated understanding of how CAD has revolutionised design processes, enabling complex iterations, enhancing collaboration, reducing production timelines and democratising access to design tools. The session concluded with portfolio development and project planning activities that will culminate in student-designed digital artefacts addressing authentic societal problems.

APPENDIX: MARKING SCHEMES FOR THE KEY ASSESSMENTS

WEEK 18

S. N.	Response
1.	A
2.	D
3.	B
4.	A
5.	B
6.	A
7.	D
8.	C
9.	B
10.	C

WEEK 19

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Vehicle Analysis & Research	Comprehensive analysis of current vehicle design language; excellent research into contemporary automotive trends; insightful identification of brand elements	Good documentation of vehicle characteristics, adequate research into design trends, and clear identification of key features	Basic observation of vehicle; limited design research, minimal brand understanding
Individual Concept Development	Each member presents a distinctive concept, excellent rendering quality in both grayscale and colour, and an understanding of automotive form	Each member presents an interesting concept, good rendering technique, and adequate understanding of vehicle styling	Concepts lack originality or distinction, basic rendering skills, and a limited understanding of automotive design principles

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Design Development	Sophisticated refinement of selected concepts; exceptional visualisation quality; innovative and cohesive design language across all vehicle elements	Effective refinement process, good visualisations, consistent design approach to vehicle elements	Minimal refinement from initial concept; basic visualisations; inconsistent treatment of design elements
Feature Design	Exceptional design of signature elements (grille, wheels, lights, etc.); outstanding attention to detail; innovative yet recognisable brand identity	Well-designed key features with good attention to detail, clear brand identity, and consistent application	Basic feature design with minimal distinction; limited detail development; weak brand expression
Technical Documentation	Precise styling drawings with excellent presentation; comprehensive detailing of key features; professional-quality specifications	Accurate drawings with good detail; clear presentation of key features; adequate specifications	Basic drawings with limited detail, unclear presentation, and minimal specifications
Physical Model Quality	Exceptional physical model with outstanding craftsmanship; excellent representation of design features; professional-quality finishing; accurate proportions	Well-constructed model with good craftsmanship; clear representation of key features; appropriate finishing; good proportions	Basic model with minimal finishing, limited feature representation, and proportional issues
Brand Identity Development	Outstanding vehicle branding system; exceptional logo/emblem design; sophisticated colour scheme; comprehensive application guidelines	Good branding system, effective logo design, appropriate colour scheme, clear application examples	Basic branding elements, an underdeveloped logo, a limited colour strategy, and minimal application examples
Exhibition Design	Outstanding presentation boards; excellent visual storytelling; professional-quality display with dramatic impact	Well-organised presentation boards; clear visual communication, and effective display	Basic presentation materials; unclear visual communication, disorganised display

SECTION 6: COLOUR THEORY, COLOUR SCHEME AND THEIR APPLICATION

STRAND: DESIGN FOR LIFE

Sub-Strand: Colour Theory and Application

Learning Indicator: *Create artifacts using knowledge in colour schemes to interpret real-life situations in response to societal problems.*

Content Standard: Demonstrate understanding and application of colour theory, colour schemes, and the mood they express in design.

SECTION INTRODUCTION AND SUMMARY

In this section, which spans three weeks, colours will be explored to understand how they work together and influence feelings. Different colour schemes, such as complementary, analogous, and triadic combinations, will be examined to see how they create specific moods in viewers and artists. Two main types of colour will be compared: pigment colours (like paint and ink) and spectrum colours (like those on screens and in light). The differences in these colour systems will be discovered, focusing on RGB and CMYK models, along with traditional paint mixing. Finally, artwork inspired by the environment will be created, using both pigment and spectrum colours to express ideas about the world. Skills in understanding and using colour effectively will be built. Clear language will be learned to discuss colour relationships, and these concepts will be shown in the artwork. This will help in building a strong portfolio and developing critical thinking skills needed for advanced art and design work while meeting the Level 4 assessment requirements in the curriculum.

The weeks and the indicators covered by the section are:

Week 20: *Identify and explain colour schemes and the mood they express in relation to learners' response.*

Week 21: *Analyse pigment colours and those of the colour spectrum*

Week 22: *Create artworks from ideas in the environment using pigment colours and colours of the spectrum*

Recap indicators for the section are:

Year 1	Week 20: Identify and explain colour schemes and the mood they express. Week 21: Analyse and explain the use of pigment colours, spectrum colours, and environmental ideas in the creation of artworks.
Year 2	Week 21: Identify and explain colour relationships and symbolism in the various Ghanaian cultures. Week 24: Create art and design works using pigment colours and Colours of the spectrum to reflect colour symbolisms in Ghana.

SUMMARY OF PEDAGOGICAL EXEMPLARS

A comprehensive understanding of colour theory and application is developed through a learning sequence that employs diverse, learner-centred pedagogical approaches. Comparative charts distinguishing pigment colours from spectrum colours are created by learners, using familiar objects to anchor abstract concepts in tangible reality. The understanding of both colour systems' functional applications in stage design is enhanced through collaborative group work, which encourages peer learning while communication skills are developed. Analysis of how different colour systems operate across varied contexts is supported by this approach. Practical scenarios are addressed in problem-based learning activities, challenging learners to apply theoretical knowledge and strengthening connections between classroom learning and real-world applications. The exploration of colour schemes and their emotional impacts is facilitated by talk-for-learning strategies, with explicit consideration given to diverse perspectives, including gender and socio-cultural backgrounds. Foundational concepts are distinguished through self-directed learning components, allowing for the development of meta-cognitive skills essential for independent study. Throughout all activities, local examples from schools and communities are engaged with, ensuring culturally relevant learning experiences. This multi-faceted approach is designed to support progression through all three learning indicators while accommodating diverse learning styles and fostering both analytical thinking and creative application within an inclusive classroom environment.

SUMMARY OF ASSESSMENT STRATEGIES

This assessment approach uses a progressive framework that aligns with learning indicators and teaching examples to assess learners' understanding and application of colour theory. For Level 2 (Conceptual Understanding), formative assessments involve creating concept maps of colour relationships and writing short answers about colour schemes and their emotional effects. This helps evaluate basic knowledge through identification and classification activities during discussions. Level 3 (Strategic Reasoning) assessment includes exercises where learners compare the differences between pigment and spectrum colours, especially in stage design. Group presentations analysing how

colours are used in local environments assess collaborative problem-solving and develop critical thinking skills. Level 4 (Extended Critical Thinking) assessment ends with portfolio development, where learners create and explain original artworks that show advanced colour application. These final projects require learners to combine theoretical knowledge with creative expression while documenting their decision-making process with reflective notes. Throughout all levels, self and peer assessments promote metacognitive growth, and culturally responsive rubrics ensure fair evaluation practices. This multi-tiered approach provides a thorough assessment of both technical skills and creative application, supporting tailored learning outcomes suited to individual abilities.

Facilitators are encouraged to administer the recommended assessments each week, carefully record the results, and submit them to the Student Assessment Portal (SAP) for documentation. The assessments are;

Indicators	DOK Level	Assessment Strategy
Identify and explain colour schemes and the mood they express in relation to learners' responses.	4	Critique-Based Assessment
Analyse pigment colours and those of the colour spectrum	4	Workshop Assessment
Create artworks from ideas in the environment using pigment colours and colours of the spectrum	4	Exhibition Assessment

WEEK 20

Learning Indicator: *Identify and explain colour schemes and the mood they express in relation to learners' responses*

FOCAL AREA: ADVANCED COLOUR THEORY AND APPLICATION

Introduction

Colour is a powerful communication tool that transcends language. Advanced understanding of colour involves not just individual shades but also their relationships and psychological effects. Skilled practitioners can manipulate colour schemes to evoke emotions, set moods, and convey meanings accurately. This knowledge includes aspects like saturation, value, warmth, and cultural influences. By blending traditional colour theories with digital management, designers can achieve greater control across various platforms. Mastery of advanced colour principles enables artists to create visual experiences that resonate with diverse audiences on multiple levels.

Key Principles of Advanced Colour Theory

1. **Mood Orchestration** - Using precise colour combinations to create specific emotional atmospheres, moving beyond basic associations to craft subtle psychological experiences.
2. **Sophisticated Harmony Systems** - Working with complex colour relationships like split-complementary and tetradic schemes to achieve balanced yet dynamic visual compositions.
3. **Environmental Adaptation** - Understanding how colours transform across different lighting, materials and contexts, ensuring consistent colour communication regardless of viewing conditions.
4. **Cultural Colour Literacy** - Recognising how cultural background influences colour interpretation, allowing for more inclusive and targeted visual communication.
5. **Strategic Colour Hierarchy** - Employing colour to establish visual importance, guide viewer attention, and communicate complex information through carefully structured colour relationships.

FOCAL AREA: DIFFERENCES BETWEEN COLOUR THEORY AND COLOUR SCHEME

- **Basic Function** - Colour theory explains the scientific rules of how colours work together and affect us, while colour schemes are specific colour combinations chosen for particular designs or artworks.

- **Knowledge vs Practice** - Colour theory provides the educational foundation about colour properties and relationships, whereas colour schemes represent the practical application of this knowledge in real projects.
- **Consistency vs Flexibility** - Colour theory establishes consistent principles that don't change (like complementary colours always creating contrast), while colour schemes vary widely depending on the project, audience and setting.
- **Learning Approach** - Studying colour theory involves understanding scientific concepts and psychological effects, while working with colour schemes requires hands-on experimentation to achieve different emotional responses.
- **Rate of Change** - Colour theory changes slowly through scientific research and understanding, while popular colour schemes shift quickly with fashion trends, new technologies and cultural preferences.

FOCAL AREA: APPLICATION OF COLOUR SCHEMES IN THE DESIGN AND PRODUCTION OF ARTWORKS

1. **Setting the Mood** - Artists choose specific colour combinations to create particular feelings in their work. Warm reds and oranges might make viewers feel energetic, while cool blues and greens often create calm, peaceful atmospheres in paintings and designs.
2. **Guiding Attention** - Colour schemes help direct where viewers look first in an artwork. Bright, contrasting colours draw the eye to important areas, while softer, similar colours create background elements in posters and illustrations.
3. **Creating Depth** - Artists use colour to make flat surfaces appear three-dimensional. Cooler colours like blue seem to move away from the viewer, while warmer colours like yellow appear to come forward in landscapes and murals.
4. **Connecting with Culture** - Local colour traditions influence artwork to make it relevant to specific communities. Ghanaian artists might incorporate traditional kente colour combinations into modern designs to maintain cultural connections.
5. **Supporting Ideas** - Colour schemes help reinforce the meaning of artwork. Artists might use contrasting colours to show opposing concepts or similar colours to show harmony and unity in their creative messages.

Learning Task

Classroom Activities: Market Stall Design Challenge

Task Description

Design a sustainable market facility that uses colour theory effectively to enhance cultural identity, improve functionality, and support key design goals.

Your colour scheme must address hygiene perception, weather protection indication, waste management clarity, and improved circulation through strategic colour application.

Group Structure

Work in groups of 3-5 members. Each member will develop one initial colour concept for the market design.

Timeline

Week 1: Colour Research & Market Analysis

Week 2: Colour Scheme Development

Week 3: Material & Colour Testing

Week 4: Final Presentation & Exhibition

Weekly Tasks

Week 1: Colour Research & Market Analysis

Market Colour Analysis

- Visit and document colour use in at least two local markets
- Create analysis diagrams showing:
  - Current colour patterns and their effectiveness
  - Cultural colour meanings relevant to market activities
  - Problem areas where colour could improve function
- Interview 2 vendors and 5 shoppers about colour preferences and associations
- Identify specific problems colour could solve in your market design

Initial Concepts

- Each group member develops one unique colour concept addressing:
  - Hygiene perception (which colours suggest cleanliness?)
  - Weather protection (how can colour indicate sheltered areas?)
  - Waste management (colour-coding for different waste types)
  - Circulation (how can colour guide movement?)
- Required for each concept:
  - Simple market layout with colour zones marked
  - Colour samples showing proposed palette
- Select two concepts for further development

Week 2: Colour Scheme Development

Colour Refinement

- Develop two selected concepts through:
  - Complete colour palettes with specific colour codes
  - Colour application diagrams showing where each colour will be used
  - Visualisations showing the market in morning and afternoon light
  - Cultural justification for colour choices

Functional Colour Planning

- Create detailed plans showing how colour will:
  - Mark different product zones (produce, meat, crafts, etc.)
  - Indicate clean areas versus waste collection points
  - Guide visitors through the market efficiently
  - Identify weather-protected versus open areas
- Select final colour scheme with clear justification

Week 3: Material & Colour Testing

Material Selection & Testing

- Select sustainable materials appropriate for market construction
- Test how your chosen colours appear on these materials
- Create samples showing:
  - How colours perform in sunlight versus shade
  - Durability of colours when exposed to water and cleaning
  - Visibility of colours from different distances
- Adjust colour specifications based on testing results

Colour Documentation

- Create a comprehensive colour guide including:
  - Exact colour specifications with samples
  - Material and colour combinations for each market area
  - Maintenance instructions for preserving colour integrity
  - Cultural meaning and function of each colour choice

Week 4: Final Presentation & Exhibition

Final Market Design

- Produce a complete market design showing:
  - Floor plan with colour-coded zones
  - Elevations showing colour application on structures
  - Details of colour-based signage and wayfinding
  - Waste management system with colour-coding

Exhibition Design

- Design a professional exhibition layout that showcases your colour strategy
- Mount all project components with a colour-based visual hierarchy
- Include physical material and colour samples as centrepieces
- Prepare a concise colour strategy description (150 words)
- Deliverable: Professional Exhibition Display

Colour Application Requirements

Digital Colour Documentation: learners must demonstrate digital colour skills through:

- Precise digital colour specifications in multiple formats (RGB, CMYK, Pantone)
- Properly scaled colour application diagrams
- Detailed colour guides showing application on different materials
- Proper organisation of colour palettes
- Consistent colour representation across all documents

Graphic Colour Presentation: Students must demonstrate graphic skills through:

- Digital colour visualisations showing different lighting conditions
- Photomontages showing colour scheme in context
- Professional colour mood board layouts
- Colour-focused infographics with multiple information layers
- Consistent colour management across all digital media

Alternative Approaches

No Digital Colour Tools Alternative Create colour documentation manually using:

- Hand-mixed paint samples with precise mixing ratios
- Colour charts using traditional media (gouache, watercolour)
- Proper colour notation using available reference systems
- Include a separate sheet demonstrating understanding of:
  - How digital colour tools would benefit specific aspects of the project
  - Which digital colour features would be most valuable
  - How digital colour would improve accuracy and modifications

No Graphic Software Alternative: Create colour visualisations manually using:

- High-quality colour rendering techniques (markers, coloured pencils)
- Collage techniques for material and colour representation
- Hand-lettering for consistent typography
- Physical colour samples for mood boards
- Include a separate sheet demonstrating understanding of:
  - How graphic software would enhance specific colour visualisations
  - Which digital colour tools would improve communication
  - How digital colour workflow facilitates iterations

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Colour Research & Analysis	Comprehensive colour analysis of existing markets with detailed documentation; insightful identification of colour-related problems; thorough user research on colour preferences and cultural associations	Clear documentation of existing colour conditions; good analysis of colour challenges; adequate user research on colour perceptions	Basic colour observation; limited analysis of colour problems; minimal user input on colour preferences
Colour Concept Development	Each member presents a distinctive, culturally-informed colour scheme; excellent rendering quality showing sophisticated colour relationships; clear functional colour thinking	Each member presents a solid colour concept; good colour rendering technique; adequate functional colour organisation	Colour concepts lack clarity or distinction; basic colour application skills; limited understanding of colour function
Colour Scheme Refinement	Sophisticated refinement of selected colour palettes; exceptional visualisation of colours in different lighting conditions; innovative colour solutions to multiple functional challenges	Effective refinement of colour schemes; good visualisations of colour application; functional colour solutions to key problems	Minimal refinement from initial colour concept; basic colour visualisations; some functional colour needs unaddressed
Colour Documentation	Precise colour specifications with comprehensive material samples; excellent attention to colour maintenance; professional colour application guides	Accurate colour specifications with proper material considerations; good colour maintenance details; clear colour guides	Basic colour specifications with some inconsistencies; limited colour maintenance information
Material Colour Testing	Exceptional colour testing across multiple materials and lighting conditions; thorough documentation of colour performance; innovative solutions to colour challenges	Well-executed colour testing on key materials; good documentation of colour behaviour; appropriate adjustments based on testing	Basic colour testing with minimal consideration of variables; limited documentation of colour performance
Cultural Colour Relevance	Outstanding integration of culturally appropriate colours; sophisticated understanding of local colour symbolism; thoughtful balance between tradition and function	Good integration of cultural colour considerations; clear understanding of local colour meanings; appropriate balance of tradition and function	Limited cultural colour considerations; basic understanding of local colour meanings; imbalance between tradition and function

Integrated Art & Design Project Two

Future Fleet: School Vehicle Colour Identity Redesign

Design Brief: Integrated Art & Design Project: Future Fleet

Apply colour theory, mood expression, and visual communication principles to create compelling colour schemes that reimagine school vehicles with striking, futuristic colour identities. Emphasise how colour can enhance form perception, communicate innovation, and establish a distinctive brand identity.

1. Begin with grayscale concept sketches, develop refined colour studies, create comprehensive colour specifications, and produce a physical colour model.
2. Document your complete colour development process, culminating in a colour styling model and professional colour presentation materials.

Group Structure and Dynamics

Students will work in groups of 3-5 members. Each member must develop one unique colour concept in both primary and secondary variations, reimagining the school's existing transport fleet (bus, trucks, staff cars) with a cohesive yet distinctive colour identity.

Project Overview

Create bold, emotionally resonant colour schemes for the school's current vehicles. Focus on how colour can transform perception, communicate futuristic qualities, and establish a unified brand while differentiating vehicle functions through colour application.

Timeline

Week 1: Colour Analysis & Concept Development

Week 2: Colour Scheme Development & Visualisation

Week 3: Colour Documentation & Material Specification

Week 4: Physical Colour Model & Exhibition

Weekly Tasks

Week 1: Colour Analysis & Concept Development

Colour Research Phase (Manual)

- Document current vehicle colour schemes through photography
- Create colour analysis diagrams showing:
  - Current colour language and emotional impact
  - Colour proportion relationships and distinctive elements
  - Opportunities for colour enhancement
- Research contemporary automotive colour trends and concept vehicle finishes
- Identify key colour elements to maintain or transform in the redesign

Colour Concept Generation (Manual)

- Each group member must develop one unique colour concept for the selected vehicle
- Required drawings per concept:
  - Grayscale value studies showing how light interacts with vehicle forms
  - Colour renderings showing primary, secondary and accent colour relationships
- Hold team critique to select two colour concepts for further development
- Deliverable: Colour Concept Portfolio including all individual interpretations

Week 2: Colour Scheme Development

Colour Refinement (Manual + Colour Media)

- Further develop two selected colour concepts through:
  - Refined colour schemes emphasising emotional and brand impact
  - Detail studies of colour application on key features (grille, headlights, wheels)
  - Exploration of colour transitions, gradients, and surface treatments

Colour Visualisation Application

- Create comprehensive colour visualisations showing:
  - The vehicle in different lighting conditions (morning, midday, evening)
  - Colour application on signature elements:
    - Front grille and headlight colour integration
    - Wheel accent colour treatments
    - Window tint and trim colour relationships
    - Roof/crown colour statement

- Colour impact in different environmental contexts

Colour Selection

- Evaluate refined colour schemes based on emotional impact and brand identity
- Select final direction with clear colour rationale
- Develop a cohesive colour language across all vehicle elements
- Deliverable: Colour Development Package with refined visualisations

Week 3: Colour Documentation & Material Specification

Colour Documentation (Digital or Manual Colour Charts)

- Create precise colour specifications, including:
  - Complete colour palette with primary, secondary and accent colours
  - Detailed colour application diagrams showing:
    - Exact colour placement and proportions
    - Colour transitions and boundaries
    - Special finish areas (metallic, matte, gloss, etc.)
  - Colour codes in multiple systems (RAL, Pantone, RGB, custom paint mixes)
  - Material and finish specifications for each colour

Colour Brand Identity Development

- Create a school vehicle fleet colour branding system:
  - Colour hierarchy and meaning within the brand
  - Typography colour relationships
  - Colour application guidelines across different vehicles
  - Colour variation system for different vehicle types while maintaining brand unity
- Deliverable: Colour Specification Package & Brand Colour System

Week 4: Physical Colour Model & Exhibition

Physical Colour Model (Manual)

- Build a physical model (1:18 or 1:24 scale) showcasing the final colour scheme
- Focus on accurately representing key colour elements:
  - Precise colour matching to specifications
  - Proper finish application (gloss, matte, metallic)
  - Colour transitions and boundaries
  - Accent colour placement

- Branded colour elements
- Use appropriate materials and painting techniques
- Mount on a display base that complements the colour scheme

Exhibition Integration

- Create three distinct colour-focused presentation boards:
  - Colour Overview: Multiple views showing complete colour scheme
  - Colour Detail Showcase: Close-ups of signature colour applications
  - Colour Brand Identity: Colour palette, meaning, and application across the fleet
- Develop an annotated colour infographic explaining:
  - Colour philosophy and inspiration
  - Psychological impact of selected colours
  - Material and finish specifications
  - Colour brand story and identity elements
- Deliverable: Physical Colour Model & Professional Exhibition Display

Colour Application Requirements

Colour Documentation (Week 3) Students must demonstrate colour specification skills through:

- Precise colour matching and notation
- Detailed colour placement diagrams
- Proper specification of special finishes
- Accurate colour proportion relationships
- Technical colour callouts and references

Colour Visualisation (Week 2 & 4) Learners must demonstrate colour rendering skills through:

- High-quality colour representations showing accurate material qualities
- Detailed visualisations of colour on complex forms
- Professional colour board layouts
- Brand colour element development
- Consistent colour representation across all materials

Alternative Approaches

Limited Colour Materials Alternative Create colour specifications manually using:

- Hand-mixed paint samples with precise formulas
- Colour swatches on appropriate surface samples
- Consistent colour representation techniques
- Include a separate sheet demonstrating understanding of:
  - How expanded colour materials would benefit the project
  - Which colour matching systems would enhance accuracy
  - How colour consistency would improve with better resources

Traditional Colour Approach Alternative Create colour visualisations manually using:

- Advanced colour rendering techniques (markers, coloured pencils, pastels)
- Consistent light source and reflection treatment on coloured surfaces
- Hand-developed colour charts and specifications
- Manual colour composition techniques for presentation boards
- Include a separate sheet demonstrating understanding of:
  - How digital colour tools would enhance presentation
  - Which colour management systems would improve quality
  - How digital colour workflow facilitates consistency

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Colour Analysis	Thorough analysis of current colours; excellent trend research; insightful identification of opportunities; deep understanding of emotional impact	Clear documentation of existing colours; good trend research; solid identification of opportunities; adequate understanding of impact	Basic colour observation; limited trend research; few opportunities identified; superficial understanding of impact
Concept Development	Distinctive, emotionally-rich colour concepts; excellent rendering quality; strong brand alignment	Solid colour concepts; good rendering technique; adequate brand consideration	Indistinct concepts; basic rendering skills; limited brand awareness
Scheme Refinement	Sophisticated colour palette development; exceptional visualisation in varied lighting; innovative surface treatments	Effective colour refinement; good lighting visualisations; appropriate surface treatments	Minimal refinement; basic visualisations; limited surface exploration
Colour Documentation	Precise specifications; comprehensive finish samples; professional application guides with multiple notation systems	Accurate specifications; proper finish considerations; clear guides with standard notation	Basic specifications; limited finish details; incomplete guides
Materials & Finishes	Exceptional material selections enhancing vehicle forms; innovative special finishes; thorough durability consideration	Well-considered materials; appropriate special finishes; good durability awareness	Basic material choices; minimal special finishes; limited durability thought
Brand Identity	Outstanding cohesive colour system; sophisticated hierarchy; perfect balance of unity and distinction	Good colour system; clear hierarchy; appropriate balance of unity and distinction	Limited colour system; basic hierarchy; poor balance
Physical Model	Flawless colour matching; perfect finish application; precise colour transitions; exceptional detail	Good colour matching; proper finishes; clear transitions; solid detail work	Approximate colours; inconsistent finishes; unclear transitions; minimal detail

Exhibition Requirements

Colour Research & Analysis Display

- Current vehicle colour scheme documentation
- Contemporary automotive colour trend examples
- Colour psychology and brand impact research
- Initial colour ideation sketches

Colour Process Display

- All initial colour concept renderings (3-5 sets of grayscale and colour studies)
- Colour development boards showing evolution of palette
- Final colour scheme visualisations in different lighting conditions

Colour Application Showcase

- Detailed colour renderings of:
  - Primary and secondary colour relationships
  - Accent colour placement strategy
  - Colour transitions and boundaries
  - Special finish applications (metallic, matte, gloss)
  - Colour response to different environmental contexts

Colour Documentation

- Complete colour specification charts
- Material and finish samples for each colour
- Colour application diagrams showing exact placement
- Colour maintenance and durability information

Colour Brand Identity Display

- Colour hierarchy system
- Colour meaning and emotional impact explanation
- Colour variation guidelines across vehicle types
- Fleet colour application examples maintaining brand unity

Physical Colour Model

- Scaled model (1:18 or 1:24) with accurate colour application
- Professional display base complementing the colour scheme
- Precise colour matching to specifications
- Correct finish application (gloss, matte, metallic)
- Accurate representation of colour transitions and boundaries

This creative project challenges learners to apply advanced colour theory and application techniques to transform familiar vehicles through strategic colour use. Learners will demonstrate how colour can enhance form perception, communicate brand values, and create emotional connections. The physical model component allows learners to demonstrate their understanding of colour matching, finish application, and how colour interacts with three-dimensional forms.

PEDAGOGY EXEMPLARS

A) ***Pedagogy***

- *Collaborative Learning:* Through brainstorming and class discussions, identify and discuss the colour scheme and mood they express and learners' response to them.

  Encourage learners to consider gender, socio-cultural background, beliefs of individual learners as well as use of examples of art and design works in the school and local community.

- *Self-directed Learning/ Initiating talk for Learning:* Through class discussions, distinguish between colour theory and colour scheme.

  Encourage learners to consider gender, socio-cultural background, beliefs of individual learners as well as use of examples of art and design works in the school and local community.

- *Experiential Learning:* Using video presentation, explain how colour theory is used in design and production of packages for selected products.

  Make provision for learners with visual and speech problems. Use products from the immediate environment that learners can relate to.

KEY ASSESSMENT

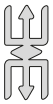
Level 4: Critique-Based Assessment

Refer to the learning task

PLC SESSION 20

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   c. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***critique-based assessment***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the critique-based assessment (NTS 3k-3q).

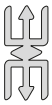
10 minutes	Content Exploration

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 21

Learning Indicator: *Identify and explain colour schemes and the mood they express in relation to learners' response*

FOCAL AREA: PIGMENT COLOURS AND COLOURS ON THE SPECTRUM

Introduction

Pigment Colours and Colours of the Spectrum

Colours are all around us, and they come from two main sources: pigments and light. Pigment colours are what we see in everyday objects, like the paint on walls or the dye in clothes. These colours work by absorbing certain light waves and reflecting others. When we mix different pigments, they become darker because each one absorbs more light.

On the other hand, spectrum colours come directly from light. Think of rainbows or how light shines through a prism. These colours appear when white light splits into different wavelengths. When you mix spectrum colours, they get lighter and can eventually combine to create white light. Knowing the difference between these two colour types helps us understand why paint mixes one way but coloured lights another. It also explains why the colours on your computer screen don't always match what you see on paper. Both pigment and spectrum colours are important in how we create and experience colour in our everyday lives.

Learning Task

Classroom Activities: Market Stall Design Challenge

(Note: this tasks should be a continuation of the task for week 19 and 20 but focus on Pigment Colours and Colours on the Spectrum)

Learning Task: Market Stall Design Challenge - Pigment and Spectrum Colour Application

Task Description

Design a sustainable market facility that strategically applies both pigment colours and spectrum colours to enhance cultural identity, improve functionality, and support key design goals. Your colour scheme must demonstrate understanding of how pigment colours (in paints, fabrics, and materials) and spectrum colours (in lighting, digital displays, and transparent elements) can work together to address hygiene perception, weather protection indication, waste management clarity, and improved circulation.

Group Structure

Work in groups of 3-5 members. Each member will develop one initial concept exploring both pigment and spectrum colour applications for the market design.

Timeline

Week 1: Pigment & Spectrum Colour Research

Week 2: Integrated Colour Scheme Development

Week 3: Material & Light Testing

Week 4: Final Presentation & Exhibition

Weekly Tasks

Week 1: Pigment & Spectrum Colour Research

Market Colour Analysis

- Visit and document both pigment and spectrum colour use in local markets
- Create analysis diagrams showing:
  - How pigment colours are used in permanent structures and signage
  - How spectrum colours appear through lighting, reflections, and transparent materials
  - How these two colour systems interact in the market environment
- Interview vendors and shoppers about their responses to different colour types
- Identify specific problems that could be solved using each colour system

Initial Concepts

- Each group member develops one concept addressing:
  - Which surfaces require pigment colours (paint, textiles, permanent materials)
  - Where spectrum colours could be incorporated (lighting, digital displays, reflective/transparent surfaces)
  - How the two systems can work together for maximum impact
- Required for each concept:
  - Simple market layout showing pigment and spectrum colour zones
  - Colour samples for both pigment applications and spectrum light effects
- Select two concepts for further development

Week 2: Integrated Colour Scheme Development

Colour System Refinement

- Develop two selected concepts through:
  - Complete pigment colour palette with specific paint/material codes
  - Spectrum colour plan showing lighting and transparent material effects
  - Visualisations showing how both systems interact in different lighting conditions
  - Cultural justification for both pigment and spectrum colour choices

Functional Colour Planning

- Create detailed plans showing how both colour systems will:
  - Mark different product zones using complementary approaches
  - Use pigment colours for permanent elements and spectrum colours for changeable information
  - Guide visitors through the market using both fixed and variable colour cues
  - Create different atmospheres through the interaction of material colours and light
- Select final integrated colour scheme with clear justification

Week 3: Material & Light Testing

Material & Light Testing

- Select sustainable materials and lighting options for market construction
- Test how pigment colours and spectrum colours interact by:
  - Observing material samples under different light sources
  - Testing how pigment colours change appearance throughout the day
  - Examining how transparent coloured materials create spectrum effects
  - Documenting how different lighting alters perception of painted surfaces
- Adjust specifications based on testing results

Colour Documentation

- Create a comprehensive colour guide including:
  - Pigment colour specifications (paint codes, material samples)
  - Spectrum colour specifications (lighting types, transparent material details)
  - Documentation of how the two systems interact
  - Maintenance instructions for preserving both colour types
  - Cultural meaning and function of each colour choice

Week 4: Final Presentation & Exhibition

Final Market Design

- Produce a complete market design showing:
  - Floor plan indicating both pigment colour zones and spectrum colour effects
  - Elevations showing material colour applications
  - Lighting plan showing spectrum colour implementation
  - Details showing how the two colour systems work together

Exhibition Design

- Design a professional exhibition that demonstrates both colour systems
- Include physical material samples alongside lighting demonstrations
- Create displays showing how pigment and spectrum colours interact
- Prepare a concise description explaining your integrated approach
- Deliverable: Professional Exhibition with both Pigment and Spectrum Colour Demonstrations

Colour Application Requirements

Pigment & Spectrum Documentation: Learners must demonstrate understanding through:

- Precise pigment colour specifications (paint systems, dyes, materials)
- Spectrum colour specifications (lighting types, filters, transparent materials)
- Diagrams showing how the two systems interact
- Documentation of how colours change under different conditions

Integrated Colour Presentation Students must demonstrate presentation skills through:

- Visualisations showing both material colours and lighting effects
- Demonstrations of how pigment colours appear under different light sources
- Physical and digital samples showing both colour systems
- Infographics explaining the science behind both colour types

Alternative Approaches

Limited Resources Alternative: Create colour documentation using:

- Hand-mixed pigment samples with precise mixing ratios

- Simple light demonstrations using available sources
- Include explanations of how more sophisticated resources would enhance the project

Traditional Approach Alternative: Create visualisations manually using:

- Traditional pigment application techniques
- Physical models demonstrating light and shadow effects
- Include explanations of how digital tools would enhance understanding of colour interaction

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Colour System Understanding	Deep knowledge of both pigment and spectrum properties; excellent documentation of their interaction	Clear understanding of both systems; good documentation of their relationship	Basic grasp of differences; minimal exploration of interaction
Concept Development	Distinctive concepts using both colour systems; excellent demonstration of complementary use	Solid concepts using both systems; good relationship demonstration	Limited distinction between systems; basic understanding
Integrated Scheme	Sophisticated integration of pigment and light; exceptional interaction visualisation	Effective integration; good interaction visualisation	Minimal integration; basic visualisation
Documentation	Precise specifications for both systems; excellent interaction documentation	Accurate specifications; good interaction documentation	Basic specifications; incomplete documentation
Material & Light Testing	Thorough testing of material-light interaction; comprehensive performance documentation	Good testing methods; clear behaviour documentation	Limited testing; minimal documentation
Cultural & Functional Application	Outstanding cultural relevance; strategic use of each system's strengths	Good cultural consideration; appropriate functional application	Limited cultural awareness; basic functional application

Integrated Art & Design Project Two

Future Fleet: School Vehicle Colour Identity Redesign

Project Brief

Apply understanding of both pigment and spectrum colour systems to reimagine school vehicles with striking, futuristic colour identities. Demonstrate how pigment colours (paints, wraps, materials) and spectrum colours (lights, reflective elements, transparent surfaces) can work together to enhance form, communicate innovation, and establish a distinctive brand identity.

Group Structure

Groups of 3-5 members. Each member develops one concept showing both pigment and spectrum colour applications for vehicles.

Project Overview

Create bold colour schemes using both pigment and spectrum approaches. Show how painted surfaces interact with light sources to transform perception, communicate futuristic qualities, and establish a unified brand identity.

Timeline

Week 1: Pigment & Spectrum Analysis

Week 2: Dual Colour System Development

Week 3: Material & Light Specifications

Week 4: Physical Model & Exhibition

Weekly Tasks

Week 1: Pigment & Spectrum Analysis

Research Phase

- Document current vehicle pigment colours and lighting systems
- Create analysis diagrams showing:
  - How painted surfaces and lights currently interact
  - Opportunities for enhanced pigment-spectrum relationships
- Research automotive trends in both paint finishes and lighting technologies
- Identify key elements to transform in both colour systems

Concept Generation

- Each member develops one concept to explore:
  - Pigment colour scheme (paints, wraps, materials)
  - Spectrum colour applications (lighting, transparent elements, displays)

- How these systems interact and complement each other

- Required drawings:
  - Grayscale value studies showing light-surface interactions
  - Colour renderings showing both pigment and spectrum elements
- Select two concepts for development

Week 2: Dual Colour System Development

Refinement

- Develop selected concepts through:
  - Refined pigment colour schemes for painted surfaces
  - Complementary spectrum colour plans for lighting elements
  - Studies showing how both systems enhance key features

Visualisation

- Create visualisations showing:
  - The vehicle in different lighting conditions
  - How pigment colours respond to changing light
  - Active lighting elements and their effect on painted surfaces
  - How both systems work together in various environments

Selection

- Evaluate concepts based on successful pigment-spectrum integration
- Develop cohesive language for both colour systems
- Deliverable: Dual Colour System Development Package

Week 3: Material & Light Specifications

Documentation

- Create specifications for:
  - Pigment colour palette with paint codes and material samples
  - Spectrum colour specifications with lighting types and intensities
  - Diagrams showing pigment-spectrum relationships
  - Special finish areas and their interaction with light

Brand System Development

- Create a fleet colour branding system showing:
  - How pigment and spectrum colours work together
  - Daytime appearance (primarily pigment-based)
  - Nighttime appearance (emphasizing spectrum elements)
  - Variation system across vehicle types
- Deliverable: Complete Pigment & Spectrum Specification Package

Week 4: Physical Model & Exhibition

Physical Model

- Build a model showcasing both colour systems:
  - Accurate pigment colour application on surfaces
  - Working lighting elements demonstrating spectrum colours
  - Demonstration of how the two systems interact
  - Proper finish application showing light response

Exhibition

- Create presentation boards showing:
  - Complete vehicle with both colour systems
  - Detailed views of pigment-spectrum interactions
  - Colour systems in different lighting conditions
- Develop an infographic explaining:
  - The science behind both colour systems
  - How pigment and spectrum colours complement each other
  - Material and lighting specifications
- Deliverable: Model with Working Lights & Exhibition Display

Requirements

Pigment Colour Requirements

- Precise paint colour specifications
- Material samples showing surface qualities
- Documentation of how pigments respond to light
- Colour placement diagrams for painted surfaces

Spectrum Colour Requirements

- Lighting type and intensity specifications
- Demonstration of light effects on surfaces
- Documentation of transparent and reflective elements
- Integration of active lighting with static elements

Alternative Approaches

Limited Resources Alternative

- Create paint samples and simulated lighting effects
- Include explanation of ideal pigment-spectrum interactions
- Document how additional resources would enhance the project

Traditional Approach Alternative

- Use rendering techniques to simulate lighting effects
- Create manual demonstrations of light-surface interactions
- Include explanation of how technology would enhance the presentation

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Pigment-Spectrum Understanding	Excellent comprehension of both colour systems; innovative integration showing how they enhance each other	Clear understanding of both systems; good demonstration of their complementary relationship	Basic grasp of differences; limited exploration of their interaction
Concept Development	Distinctive concepts using both pigment and spectrum colours; excellent demonstration of 24-hour appearance	Solid concepts using both systems; good day/night visualization	Limited distinction between systems; basic concepts
Colour Integration	Sophisticated integration of paint and light; exceptional demonstration of how they enhance vehicle forms	Effective integration; good demonstration of light-surface interaction	Minimal integration; limited understanding of interaction

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Technical Documentation	Precise specifications for both paint and lighting; comprehensive documentation of their interaction	Accurate specifications; clear documentation of relationship	Basic specifications; incomplete documentation
Material & Light Testing	Thorough testing of how materials respond to different lighting; innovative solutions to technical challenges	Good testing methodology; appropriate solutions to challenges	Limited testing; few solutions to challenges
Brand System	Outstanding cohesive system using both colour types; perfect day/night brand continuity	Good system with clear relationship between paint and light; appropriate brand continuity	Basic system with limited relationship; poor continuity
Physical Model	Flawless paint application with working lighting elements; perfect demonstration of both systems	Good paint quality with functional lights; clear demonstration	Approximate colours; minimal lighting function

Exhibition Design

- Design a professional exhibition that demonstrates both colour systems
- Include physical material samples alongside lighting demonstrations
- Create displays showing how pigment and spectrum colours interact
- Prepare a concise description explaining your integrated approach
- Deliverable: Professional Exhibition with both Pigment and Spectrum Colour Demonstrations

Colour Application Requirements

Pigment & Spectrum Documentation: learners s must demonstrate understanding through:

- Precise pigment colour specifications (paint systems, dyes, materials)
- Spectrum colour specifications (lighting types, filters, transparent materials)
- Diagrams showing how the two systems interact
- Documentation of how colours change under different conditions

Integrated Colour Presentation Students must demonstrate presentation skills through:

- Visualisations showing both material colours and lighting effects
- Demonstrations of how pigment colours appear under different light sources
- Physical and digital samples showing both colour systems
- Infographics explaining the science behind both colour types

Alternative Approaches

Limited Resources Alternative Create colour documentation using:

- Hand-mixed pigment samples with precise mixing ratios
- Simple light demonstrations using available sources
- Include explanations of how more sophisticated resources would enhance the project

Traditional Approach Alternative Create visualisations manually using:

- Traditional pigment application techniques
- Physical models demonstrating light and shadow effects
- Include explanations of how digital tools would enhance understanding of colour interaction

PEDAGOGY EXEMPLARS

1. *Experiential Learning:* Use a chart to illustrate the distinction between pigment colours and colours of the spectrum.

   Make provision for learners with visual challenges as well as diverse learning abilities. Use products from the immediate environment that learners can relate to

2. *Collaborative Learning:* Forming small groups, explain the functions of colours of the spectrum with reference to how they are used in stage design.

   Make provision for learners with visual and hearing speech problems as well as diverse socio-cultural and beliefs. Use products from the immediate environment that learners can relate to

3. *Project-based Learning:* In small groups, explain the functions of pigment colours as regards to how they are used in stage design.

   Encourage learners with visual and hearing speech problems as well as diverse socio-cultural and beliefs. Use products from the immediate environment that learners can relate to

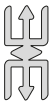
KEY ASSESSMENT

Level 4: Workshop Assessment

PLC SESSION 21

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***workshop assessment***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the assessment (NTS 3k-3q).

10 minutes	Content Exploration

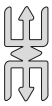
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 22

Learning Indicator: *Create artworks from ideas in the environment using pigment colours and colours of the spectrum*

FOCAL AREA: CREATING WITH COLOUR

Introduction

Pigment Colours and Colours of the Spectrum

Colours are all around us, and they come from two main sources: pigments and light. Pigment colours are what we see in everyday objects, like the paint on walls or the dye in clothes. These colours work by absorbing certain light waves and reflecting others. When we mix different pigments, they become darker because each one absorbs more light.

On the other hand, spectrum colours come directly from light. Think of rainbows or how light shines through a prism. These colours appear when white light splits into different wavelengths. When you mix spectrum colours, they get lighter and can eventually combine to create white light. Knowing the difference between these two colour types helps us understand why paint mixes one way but coloured lights another. It also explains why the colours on your computer screen don't always match what you see on paper. Both pigment and spectrum colours are important in how we create and experience colour in our everyday lives.

Learning Task

Classroom Activities: Market Stall Design Challenge

(Note: this tasks should be a continuation of the task for weeks 19, 20 and 20 but focus on Pigment Colours and Colours on the Spectrum)

Learning Task: Market Stall Design Challenge - Pigment and Spectrum Colour Application

Task Description

Design a sustainable market facility that strategically applies both pigment colours and spectrum colours to enhance cultural identity, improve functionality, and support key design goals. Your colour scheme must demonstrate understanding of how pigment colours (in paints, fabrics, and materials) and spectrum colours (in lighting, digital displays, and transparent elements) can work together to address hygiene perception, weather protection indication, waste management clarity, and improved circulation.

Group Structure

Work in groups of 3-5 members. Each member will develop one initial concept exploring both pigment and spectrum colour applications for the market design.

Timeline

Week 1: Pigment & Spectrum Colour Research

Week 2: Integrated Colour Scheme Development

Week 3: Material & Light Testing

Week 4: Final Presentation & Exhibition

Weekly Tasks

Week 1: Pigment & Spectrum Colour Research

Market Colour Analysis

- Visit and document both pigment and spectrum colour use in local markets
- Create analysis diagrams showing:
  - How pigment colours are used in permanent structures and signage
  - How spectrum colours appear through lighting, reflections, and transparent materials
  - How these two colour systems interact in the market environment
- Interview vendors and shoppers about their responses to different colour types
- Identify specific problems that could be solved using each colour system

Initial Concepts

- Each group member develops one concept addressing:
  - Which surfaces require pigment colours (paint, textiles, permanent materials)
  - Where spectrum colours could be incorporated (lighting, digital displays, reflective/transparent surfaces)
  - How the two systems can work together for maximum impact
- Required for each concept:
  - Simple market layout showing pigment and spectrum colour zones
  - Colour samples for both pigment applications and spectrum light effects
- Select two concepts for further development

Week 2: Integrated Colour Scheme Development

Colour System Refinement

- Develop two selected concepts through:
  - Complete pigment colour palette with specific paint/material codes
  - Spectrum colour plan showing lighting and transparent material effects
  - Visualisations showing how both systems interact in different lighting conditions
  - Cultural justification for both pigment and spectrum colour choices

Functional Colour Planning

- Create detailed plans showing how both colour systems will:
  - Mark different product zones using complementary approaches
  - Use pigment colours for permanent elements and spectrum colours for changeable information
  - Guide visitors through the market using both fixed and variable colour cues
  - Create different atmospheres through the interaction of material colours and light
- Select final integrated colour scheme with clear justification

Week 3: Material & Light Testing

Material & Light Testing

- Select sustainable materials and lighting options for market construction
- Test how pigment colours and spectrum colours interact by:
  - Observing material samples under different light sources
  - Testing how pigment colours change appearance throughout the day
  - Examining how transparent coloured materials create spectrum effects
  - Documenting how different lighting alters perception of painted surfaces
- Adjust specifications based on testing results

Colour Documentation

- Create a comprehensive colour guide including:
  - Pigment colour specifications (paint codes, material samples)
  - Spectrum colour specifications (lighting types, transparent material details)
  - Documentation of how the two systems interact
  - Maintenance instructions for preserving both colour types
  - Cultural meaning and function of each colour choice

Week 4: Final Presentation & Exhibition

Final Market Design

- Produce a complete market design showing:
  - Floor plan indicating both pigment colour zones and spectrum colour effects
  - Elevations showing material colour applications
  - Lighting plan showing spectrum colour implementation
  - Details showing how the two colour systems work together

Exhibition Design

- Design a professional exhibition that demonstrates both colour systems
- Include physical material samples alongside lighting demonstrations
- Create displays showing how pigment and spectrum colours interact
- Prepare a concise description explaining your integrated approach
- Deliverable: Professional Exhibition with both Pigment and Spectrum Colour Demonstrations

Colour Application Requirements

Pigment & Spectrum Documentation: learners s must demonstrate understanding through:

- Precise pigment colour specifications (paint systems, dyes, materials)
- Spectrum colour specifications (lighting types, filters, transparent materials)
- Diagrams showing how the two systems interact
- Documentation of how colours change under different conditions

Integrated Colour Presentation Students must demonstrate presentation skills through:

- Visualisations showing both material colours and lighting effects
- Demonstrations of how pigment colours appear under different light sources
- Physical and digital samples showing both colour systems
- Infographics explaining the science behind both colour types

Alternative Approaches

Limited Resources Alternative Create colour documentation using:

- Hand-mixed pigment samples with precise mixing ratios

- Simple light demonstrations using available sources
- Include explanations of how more sophisticated resources would enhance the project

Traditional Approach Alternative Create visualisations manually using:

- Traditional pigment application techniques
- Physical models demonstrating light and shadow effects
- Include explanations of how digital tools would enhance understanding of colour interaction

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Colour System Understanding	Deep knowledge of both pigment and spectrum properties; excellent documentation of their interaction	Clear understanding of both systems; good documentation of their relationship	Basic grasp of differences; minimal exploration of interaction
Concept Development	Distinctive concepts using both colour systems; excellent demonstration of complementary use	Solid concepts using both systems; good relationship demonstration	Limited distinction between systems; basic understanding
Integrated Scheme	Sophisticated integration of pigment and light; exceptional interaction visualisation	Effective integration; good interaction visualisation	Minimal integration; basic visualisation
Documentation	Precise specifications for both systems; excellent interaction documentation	Accurate specifications; good interaction documentation	Basic specifications; incomplete documentation
Material & Light Testing	Thorough testing of material-light interaction; comprehensive performance documentation	Good testing methods; clear behaviour documentation	Limited testing; minimal documentation
Cultural & Functional Application	Outstanding cultural relevance; strategic use of each system's strengths	Good cultural consideration; appropriate functional application	Limited cultural awareness; basic functional application

Integrated Art & Design Project Two

Future Fleet: School Vehicle Colour Identity Redesign

Project Brief

Apply understanding of both pigment and spectrum colour systems to reimagine school vehicles with striking, futuristic colour identities. Demonstrate how pigment colours (paints, wraps, materials) and spectrum colours (lights, reflective elements, transparent surfaces) can work together to enhance form, communicate innovation, and establish a distinctive brand identity.

Group Structure

Groups of 3-5 members. Each member develops one concept showing both pigment and spectrum colour applications for vehicles.

Project Overview

Create bold colour schemes using both pigment and spectrum approaches. Show how painted surfaces interact with light sources to transform perception, communicate futuristic qualities, and establish a unified brand identity.

Timeline

Week 1: Pigment & Spectrum Analysis

Week 2: Dual Colour System Development

Week 3: Material & Light Specifications

Week 4: Physical Model & Exhibition

Weekly Tasks

Week 1: Pigment & Spectrum Analysis

Research Phase

- Document current vehicle pigment colours and lighting systems
- Create analysis diagrams showing:
  - How painted surfaces and lights currently interact
  - Opportunities for enhanced pigment-spectrum relationships
- Research automotive trends in both paint finishes and lighting technologies
- Identify key elements to transform in both colour systems

Concept Generation

- Each member develops one concept exploring:
  - Pigment colour scheme (paints, wraps, materials)

- Spectrum colour applications (lighting, transparent elements, displays)
- How these systems interact and complement each other

- Required drawings:
  - Grayscale value studies showing light-surface interactions
  - Colour renderings showing both pigment and spectrum elements

- Select two concepts for development

Week 2: Dual Colour System Development

Refinement

- Develop selected concepts through:
  - Refined pigment colour schemes for painted surfaces
  - Complementary spectrum colour plans for lighting elements
  - Studies showing how both systems enhance key features

Visualisation

- Create visualisations showing:
  - The vehicle in different lighting conditions
  - How pigment colours respond to changing light
  - Active lighting elements and their effect on painted surfaces
  - How both systems work together in various environments

Selection

- Evaluate concepts based on successful pigment-spectrum integration
- Develop cohesive language for both colour systems
- Deliverable: Dual Colour System Development Package

Week 3: Material & Light Specifications

Documentation

- Create specifications for:
  - Pigment colour palette with paint codes and material samples
  - Spectrum colour specifications with lighting types and intensities
  - Diagrams showing pigment-spectrum relationships
  - Special finish areas and their interaction with light

Brand System Development

- Create a fleet colour branding system showing:
  - How pigment and spectrum colours work together

- Daytime appearance (primarily pigment-based)
- Night time appearance (emphasizing spectrum elements)
- Variation system across vehicle types

- Deliverable: Complete Pigment & Spectrum Specification Package

Week 4: Physical Model & Exhibition

Physical Model

- Build a model showcasing both colour systems:
  - Accurate pigment colour application on surfaces
  - Working lighting elements demonstrating spectrum colours
  - Demonstration of how the two systems interact
  - Proper finish application showing light response

Exhibition

- Create presentation boards showing:
  - Complete vehicle with both colour systems
  - Detailed views of pigment-spectrum interactions
  - Colour systems in different lighting conditions

- Develop an infographic explaining:
  - The science behind both colour systems
  - How pigment and spectrum colours complement each other
  - Material and lighting specifications

- Deliverable: Model with Working Lights & Exhibition Display

Requirements

Pigment Colour Requirements

- Precise paint colour specifications
- Material samples showing surface qualities
- Documentation of how pigments respond to light
- Colour placement diagrams for painted surfaces

Spectrum Colour Requirements

- Lighting type and intensity specifications
- Demonstration of light effects on surfaces
- Documentation of transparent and reflective elements

- Integration of active lighting with static elements

Alternative Approaches

Limited Resources Alternative

- Create paint samples and simulated lighting effects
- Include explanation of ideal pigment-spectrum interactions
- Document how additional resources would enhance the project

Traditional Approach Alternative

- Use rendering techniques to simulate lighting effects
- Create manual demonstrations of light-surface interactions
- Include explanation of how technology would enhance the presentation

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Pigment-Spectrum Understanding	Excellent comprehension of both colour systems; innovative integration showing how they enhance each other	Clear understanding of both systems; good demonstration of their complementary relationship	Basic grasp of differences; limited exploration of their interaction
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Technical Documentation	Precise specifications for both paint and lighting; comprehensive documentation of their interaction	Accurate specifications; clear documentation of relationship	Basic specifications; incomplete documentation

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Material & Light Testing	Thorough testing of how materials respond to different lighting; innovative solutions to technical challenges	Good testing methodology; appropriate solutions to challenges	Limited testing; few solutions to challenges
Brand System	Outstanding cohesive system using both colour types; perfect day/night brand continuity	Good system with clear relationship between paint and light; appropriate brand continuity	Basic system with limited relationship; poor continuity
Physical Model	Flawless paint application with working lighting elements; perfect demonstration of both systems	Good paint quality with functional lights; clear demonstration	Approximate colours; minimal lighting function

Exhibition Design

- Design a professional exhibition that demonstrates both colour systems
- Include physical material samples alongside lighting demonstrations
- Create displays showing how pigment and spectrum colours interact
- Prepare a concise description explaining your integrated approach
- Deliverable: Professional Exhibition with both Pigment and Spectrum Colour Demonstrations

Colour Application Requirements

Pigment & Spectrum Documentation: learners s must demonstrate understanding through:

- Precise pigment colour specifications (paint systems, dyes, materials)
- Spectrum colour specifications (lighting types, filters, transparent materials)
- Diagrams showing how the two systems interact
- Documentation of how colours change under different conditions

Integrated Colour Presentation Students must demonstrate presentation skills through:

- Visualisations showing both material colours and lighting effects
- Demonstrations of how pigment colours appear under different light sources

- Physical and digital samples showing both colour systems
- Infographics explaining the science behind both colour types

Alternative Approaches

Limited Resources Alternative Create colour documentation using:

- Hand-mixed pigment samples with precise mixing ratios
- Simple light demonstrations using available sources
- Include explanations of how more sophisticated resources would enhance the project

Traditional Approach Alternative Create visualisations manually using:

- Traditional pigment application techniques
- Physical models demonstrating light and shadow effects
- Include explanations of how digital tools would enhance understanding of colour interaction

PEDAGOGY EXEMPLARS

1. *Experiential Learning:* Use a chart to illustrate the distinction between pigment colours and colours of the spectrum.

   Make provision for learners with visual challenges as well as diverse learning abilities. Use products from the immediate environment that learners can relate to

2. *Collaborative Learning:* Forming small groups, explain the functions of colours of the spectrum with reference to how they are used in stage design.

   Make provision for learners with visual and hearing speech problems as well as diverse socio-cultural and beliefs. Use products from the immediate environment that learners can relate to

3. *Project-based Learning:* In small groups, explain the functions of pigment colours as regards to how they are used in stage design.

   Encourage learners with visual and hearing speech problems as well as diverse socio-cultural and beliefs. Use products from the immediate environment that learners can relate to.

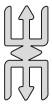
KEY ASSESSMENT

Level 4: Exhibition Assessment

PLC SESSION 22

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***exhibition assessment***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the exhibition (NTS 3k-3q).

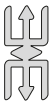
10 minutes	Content Exploration

5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then
   a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

Section 6 Review

This three-week section explored the world of colour, beginning with an examination of colour schemes and their psychological impacts. learners engaged in collaborative discussions about how different colour combinations evoke specific emotional responses, considering diverse cultural perspectives and personal experiences.

Through experiential learning activities, we compared pigment colours with spectrum colours, creating comparative charts and analysing their distinctive properties. learners discovered how subtractive and additive colour systems function differently across various media and contexts, particularly in stage design applications.

The weeks in the section is devotes to the making of a creative project where learners applied theoretical knowledge to develop environmentally-inspired artworks. These projects demonstrated both technical understanding and creative expression while depicting thoughtful colour application.

Assessment strategies progressed from conceptual understanding through strategic reasoning to extended critical thinking, with students developing portfolios that documented their learning journey. Throughout the sessions, learners built essential vocabulary for discussing colour relationships while developing practical skills in colour mixing and application, establishing foundations for advanced study in visual arts.

SECTION 7: ADVANCED COMPOSITION

STRAND: DESIGN FOR LIFE

Sub-Strand: Relation of Forms

Learning Indicator: *Design and create artworks by relating basic contours and forms in simple objects in the environment using modern and digital approaches.*

Content Standard: Demonstrate knowledge, understanding and skills in relating forms in basic and objective drawing with the application of different/non- conventional media and techniques for creative expression.

SECTION INTRODUCTION AND SUMMARY

In this two-week exploration of form and tone, we will challenge conventional drawing practices by investigating how everyday objects can be reimagined through alternative materials and techniques through a continuation of the project started in week 19. Beginning with an examination of basic contours and forms, we will develop observational skills whilst experimenting with unexpected drawing tools—from natural materials to recycled objects creating works that merge technical precision with creative innovation.

As we progress, our focus will shift to the nuanced relationship between tonal values and hues in creating convincing representations. Through guided exercises and independent exploration, you will learn to manipulate light, shadow and colour to enhance the three-dimensional quality of your drawings, developing a sophisticated understanding of how tonal relationships create depth, volume and atmosphere.

Throughout both weeks, you will build a portfolio demonstrating your ability to observe carefully, experiment boldly and apply technical knowledge creatively. This approach develops Level 4 critical thinking skills as you make informed decisions about material selection and tonal application. By the end of these sections, you will have expanded your technical repertoire whilst developing a more personal and expressive drawing language that transcends conventional approaches.

The weeks and the indicators covered by the section are:

Week 23: *Organise and create drawings by relating basic contours and forms in simple objects in the environment using non-conventional materials.*

Week 24: *Compose appropriate tonal values and hues for forms of resemblance*

Recap indicators for the section are:

Year 1	Week 23: Compose appropriate tonal values and hues for forms in drawing.
Year 2	Week 23: Create drawings of figurative representations in the environment Week 24: Compose appropriate treatments of constituent parts for forms of recognition and abstraction.

SUMMARY OF PEDAGOGICAL EXEMPLARS

This section employs diverse, learner-centred pedagogical approaches to develop students' ability to create expressive drawings using both conventional understanding and innovative materials. The learning journey progresses strategically from exploration to application and reflection.

For contour and form development, self-directed learning empowers students to independently select appropriate media, fostering autonomy whilst building technical competence. This transitions into project-based activities where students apply this knowledge through non-conventional materials, challenging traditional approaches whilst maintaining compositional integrity. Collaborative discussions establish crucial theoretical foundations by examining the distinction between conventional and innovative approaches.

The tonal values exploration begins with problem-based learning through structured brainstorming, allowing students to analyse how tonal relationships create convincing representations. Experiential learning activities then provide practical application opportunities, where students individually develop compositions demonstrating their understanding of how tonal values create three-dimensional forms.

The learning sequence culminates in critical reflection, with students evaluating their own work through structured appreciation and critique sessions. This metacognitive component develops Level 4 critical thinking whilst reinforcing core concepts.

Throughout both learning indicators, the pedagogical approaches move systematically from guided exploration to independent application, supporting comprehensive skill development whilst encouraging creative innovation.

SUMMARY OF ASSESSMENT STRATEGIES

This section's assessment strategy employs a multi-layered approach to evaluate both Level 3 Strategic reasoning and Level 4 Extended critical thinking skills across the learning indicators.

For contour and form development using non-conventional materials, assessment begins with process documentation where students record their material experimentation and decision-making processes. This evaluates strategic reasoning through evidence of

informed material selection and application. The resulting compositions are then assessed through a practical exhibition format, where students must demonstrate how their unconventional approaches solve specific visual challenges showing extended critical thinking.

The tonal values assessment incorporates comparative analysis tasks where students systematically demonstrate how varied tonal relationships create three-dimensional form. This evaluates strategic reasoning through structured application of technical knowledge. The culminating portfolio assessment requires students to present finished compositions alongside analytical reflections that justify their tonal decisions, demonstrating extended critical thinking through the evaluation of their own creative choices.

Both learning indicators include peer critique components where students apply evaluative frameworks to others' work, further developing critical thinking whilst reinforcing core concepts. This comprehensive approach ensures assessment of both technical skill development and the higher-order thinking processes essential for artistic development.

Facilitators are encouraged to administer the recommended assessments each week, carefully record the results, and submit them to the Student Assessment Portal (SAP) for documentation. The assessments are;

Indicators	DOK Level	*Assessment Strategy*
Organise and create drawings by relating basic contours and forms in simple objects in the environment using non-conventional materials.	4	Practical Assessment
Compose appropriate tonal values and hues for forms of resemblance	4	Demonstrations

WEEK 23

Learning Indicator: *Organise and create drawings by relating basic contours and forms in simple objects in the environment using non-conventional materials*

FOCAL AREA: DRAWING AND ADVANCED COMPOSITION

BASIC APPROACHES TO DRAWING

Drawing may be considered the foundation of visual art a skill through which the world around us is observed, interpreted, and communicated. Three fundamental approaches to drawing are presented here, each offering different ways through which skills might be developed and vision expressed.

Basic Drawing begins with an understanding of simple shapes, lines, and proportions. It concerns how pencil or pen might be moved across paper to create marks. Much as the alphabet is learnt before sentences are written, basic drawing teaches the essential elements that comprise all artwork. Through practice of basic drawing, hand-eye coordination is developed and the translation of what is seen or imagined into visual form is achieved.

Objective Drawing is centred on the accurate representation of what is seen. Careful observation and measurement are required to capture real objects, people, or scenes as they truly appear. When drawing objectively, what one thinks something looks like is set aside, and instead, exactly what the eyes perceive is drawn—including proper proportions, perspective, and spatial relationships. Through this approach, critical observation skills that benefit all artistic endeavours are built.

Contour Drawing places emphasis on the edges and outlines of subjects. In this approach, the boundaries where objects meet space or where different planes meet each other are traced. It might be imagined that one's pencil is touching the actual object as the eye moves along its edges. Through contour drawing, the hand is trained to follow what the eye sees without interpretation, thus developing the connection between observation and mark-making.

Each of these approaches builds different artistic skills, yet they work together to develop one's overall drawing ability. Through practice of these fundamental techniques, confidence is gained and one's unique drawing style is developed.

Learning Task: Market Stall Design (Advanced Drawing Techniques)

Task Description

Design a sustainable market facility using advanced drawing techniques to communicate form, function, and spatial relationships. Your drawings must

demonstrate mastery of basic drawing, objective drawing, and contour drawing to show material applications, lighting effects, and their interaction in creating a functional, culturally relevant market space.

Learning Task: Market Stall Design Through Advanced Drawing Techniques

Task Description

Your drawings must demonstrate mastery of basic drawing, objective drawing, and contour drawing to effectively represent the market's structure, materials, and user experience.

Group Structure

Work in groups of 3-5 members. Each member will develop one initial concept using all three drawing techniques to explore different aspects of market design.

Timeline

Week 1: Drawing Analysis & Market Research

Week 2: Concept Development Through Drawing

Week 3: Advanced Drawing & Compositional Refinement

Week 4: Final Drawing Portfolio & Exhibition

Weekly Tasks

Week 1: Drawing Analysis & Market Research

Market Analysis Through Drawing

- Visit local markets to document structures through:
  - Basic drawings: Capture overall spatial organisation using simple shapes and forms
  - Objective drawings: Record accurate proportions of structures and spatial relationships
  - Contour drawings: Define edges, boundaries, and structural transitions
- Create analytical drawings showing:
  - How market spaces are organised and divided
  - How circulation paths flow through the market
  - How vendors and customers interact with structures

Drawing Technique Development

- Practice specific drawing techniques for architectural communication:
  - Gestural studies capturing movement and flow through spaces
  - Structural studies showing weight, balance, and support systems

- Linear studies emphasizing edges, transitions, and boundaries

- Experiment with drawing methods to represent:
  - Different materials and textures
  - Solid and void relationships
  - Scale and proportion relative to human figures

Initial Concept Sketches

- Each member develops preliminary drawings exploring:
  - Basic drawings: Overall market composition using fundamental shapes and forms
  - Objective drawings: Accurate representations of key structures with proper perspective
  - Contour drawings: Edge definitions highlighting important structural transitions

- Required for each concept:
  - Compositional studies showing spatial organisation
  - Drawings that communicate human interaction with spaces

- Select two concepts for further development based on drawing clarity and potential

Week 2: Concept Development Through Drawing

Compositional Development

- Develop selected concepts through basic drawing:
  - Multiple layout studies exploring different spatial arrangements
  - Mass-void studies showing solid and empty spaces
  - Simplified drawings showing circulation patterns and flow

- Create drawings that explore:
  - Balance and proportion in the overall composition
  - Rhythm and pattern created through structural repetition
  - Emphasis of key areas through size and placement

Technical Development

- Refine concepts through objective drawing:
  - Accurate perspective drawings showing the market from multiple viewpoints
  - Precise sectional drawings revealing internal structures and relationships
  - Detailed renderings of important features with correct scale and proportion

- Create drawings that communicate:
  - Exact proportions and measurements of structures
  - Technical details of construction methods
  - How different materials would be joined and assembled

Detail Development

- Enhance concepts through contour drawing:
  - Linear drawings emphasising edges between different structural elements
  - Studies of how different materials and forms meet and interact
  - Drawings highlighting transitions between spaces and functions

- Create drawings that show:
  - Critical edges where forms change direction
  - Boundaries between different materials and structures
  - Transition areas between public and private spaces

Week 3: Advanced Drawing & Compositional Refinement

Integrated Drawing Development

- Create comprehensive drawings combining all three approaches:
  - Foundation of basic drawing for overall spatial composition
  - Objective drawing for accurate structural and material details
  - Contour drawing to emphasize important transitions and boundaries

- Develop drawings showing:
  - How structures would be constructed and assembled
  - How spaces would flow and connect with each other
  - How users would move through and interact with the market

Material & Texture Visualization

- Create drawings that communicate:
  - How different materials would be applied to structures
  - How textures would enhance the tactile experience
  - How structural elements would be expressed or concealed

- Develop techniques for showing:
  - Weight and density of materials
  - Surface qualities and textures
  - Weathering and aging of materials over time

Functional & Human Integration

- Refine drawings to clearly show:
  - How people would move through the market
  - How vendors would display and sell products
  - How the design addresses practical needs
- Create explanatory drawings that communicate:
  - Spatial organization for different product types
  - How the design enhances hygiene and cleanliness
  - How the structure provides weather protection

Week 4: Final Drawing Portfolio & Exhibition

Final Drawing Portfolio

- Create a comprehensive set of finished drawings including:
  - Large-scale compositional drawings showing the complete market design
  - Detailed objective drawings of structural systems and connections
  - Expressive contour drawings highlighting key spatial transitions
  - Sequential drawings showing user experience through the market
- Ensure drawings effectively communicate:
  - Overall spatial composition and organisation
  - Detailed structural and material specifications
  - Human scale and interaction with spaces
  - Functional aspects of the market design

Drawing-Based Presentation Materials

- Create professional presentation materials:
  - Hand-drawn diagrams explaining structural systems
  - Sequential drawings showing construction processes
  - Detailed drawings of material applications and junctions
- Develop drawing-based explanations showing:
  - The structural logic behind your design
  - How cultural influences shaped spatial organisation
  - How the design enhances market functionality

Exhibition

- Mount a professional exhibition including:
  - Process drawings showing the development of spatial concepts

- Final comprehensive drawings showing the complete design
- Detailed drawings highlighting important structural elements
- Drawings showing human interaction with spaces

- Be prepared to explain:
  - How each drawing technique contributed to communicating design concepts
  - Why specific compositional choices were made
  - How drawing helped solve spatial and structural challenges

Materials Needed

- Drawing paper of various sizes
- Range of drawing tools (pencils, pens, markers, charcoal)
- Measuring and scaling tools (rulers, scales, templates)
- Perspective guides and viewfinders
- Reference materials of existing markets
- Mounting materials for exhibition

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Basic Drawing	Excellent use of fundamental shapes; strong composition; clear form relationships	Good use of basic shapes; solid composition; appropriate form relationships	Limited use of basic principles; weak composition; unclear relationships
Objective Drawing	Precise perspective; accurate proportions; excellent scale; meticulous detail	Correct perspective; good proportions; appropriate scale; clear details	Perspective errors; proportion problems; inconsistent scale; minimal detail
Contour Drawing	Masterful line quality; expressive edges; excellent boundary definition	Effective line work; clear edges; good boundary definition	Weak line quality; undefined edges; poor boundary definition
Spatial Communication	Outstanding 3D representation; innovative depth techniques	Good 3D representation; clear spatial relationships	Flat representation; confusing spatial relationships

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Structural Clarity	Excellent construction logic; clear material representation	Good structural systems; appropriate material indication	Unclear construction; poor material representation
Human Integration	Perfect scale; clear human interaction; excellent functional logic	Appropriate scale; good human elements; clear function	Inconsistent scale; limited human elements; unclear function
Drawing Completeness	Comprehensive drawing set; exceptional development progression	Complete drawing set; good idea development	Incomplete drawing set; limited development
Presentation	Outstanding organisation; professional appearance; excellent craftsmanship	Good organisation; clean presentation; solid craftsmanship	Poor organisation; messy presentation; weak craftsmanship

Integrated Art & Design Project Two

Future Fleet: School Vehicle Form Identity Redesign

Integrated Art & Design Project: Vehicle Form Study Through Advanced Drawing

Project Brief

Apply advanced drawing techniques to reimagine school vehicles with striking, futuristic forms. Demonstrate how basic drawing, objective drawing, and contour drawing can work together to communicate innovative design, structural clarity, and distinctive brand identity.

Group Structure

Groups of 3-5 members. Each member develops one concept using all three drawing approaches to explore vehicle form and structure.

Project Overview

Create compelling vehicle designs using progressive drawing techniques. Show how different drawing approaches can effectively communicate form, proportion, structure, and spatial relationships in vehicle design.

Timeline

Week 1: Form Analysis & Drawing Technique Development

Week 2: Concept Development Through Multiple Drawing Approaches

Week 3: Advanced Drawing & Compositional Refinement

Week 4: Final Drawing Portfolio & Physical Model

Weekly Tasks

Week 1: Form Analysis & Drawing Technique Development

Research Phase

- Document current vehicle forms through:
  - Basic drawings capturing fundamental shapes and volumes
  - Objective drawings recording precise proportions and details
  - Contour drawings defining critical edges and character lines
- Create analysis drawings showing:
  - How vehicle forms create visual identity
  - Key proportional relationships in successful designs
  - Important edge transitions that define character
- Research contemporary automotive design approaches

Drawing Technique Development

- Practice specific vehicle drawing techniques:
  - Basic shape studies simplifying vehicles to fundamental forms
  - Perspective studies showing vehicles from multiple viewpoints
  - Line weight studies emphasizing critical edges and transitions
- Develop skills in representing:
  - Reflective surfaces and transparent elements
  - Complex curved surfaces and intersections
  - Material transitions and connections

Concept Generation

- Each member develops one concept exploring:
  - Basic drawing: Overall vehicle proportion and stance
  - Objective drawing: Accurate structural and mechanical elements
  - Contour drawing: Character-defining edges and surface transitions
- Required drawings:
  - Simplified form studies showing basic volumes

- Accurate orthographic views (side, front, top)
- Linear drawings highlighting distinctive character lines

- Select two concepts for development

Week 2: Concept Development Through Multiple Drawing Approaches

Form Development

- Develop selected concepts through basic drawing:
  - Multiple proportion studies exploring different volume relationships
  - Gestural studies capturing dynamic qualities and visual movement
  - Simplified drawings showing major masses and their relationships

- Create drawings exploring:
  - Balance and harmony in overall form
  - Rhythm and continuity in surface treatment
  - Emphasis of key design elements

Technical Development

- Refine concepts through objective drawing:
  - Accurate perspective drawings from multiple viewpoints
  - Precise sectional drawings revealing internal structure
  - Detailed renderings of key components and features

- Create drawings communicating:
  - Exact proportions and scale
  - Mechanical and structural logic
  - Human interaction and ergonomics

Character Development

- Enhance concepts through contour drawing:
  - Linear drawings emphasising signature edges
  - Studies of critical surface transitions
  - Drawings highlighting form intersections and boundaries

- Create drawings showing:
  - Character-defining lines and curves
  - Surface tension and continuity
  - Brand identity through form language

Week 3: Advanced Drawing & Compositional Refinement

Integrated Drawing Development

- Create comprehensive drawings combining all three approaches:
  - Basic drawing establishing overall form and proportion
  - Objective drawing providing technical accuracy and detail
  - Contour drawing emphasizing character and brand identity
- Develop drawings showing:
  - Complete vehicle from multiple angles
  - Key details and features
  - Form relationships and transitions

Detail Visualization

- Create drawings communicating:
  - Surface development and continuity
  - Material transitions and connections
  - Functional elements and their integration
- Develop techniques for showing:
  - Complex curved surfaces
  - Transparent and solid relationships
  - Mechanical elements and their housing

Brand Identity Through Form

- Refine drawings to clearly show:
  - Distinctive form language across vehicle family
  - Consistent proportional relationships
  - Signature elements and details
- Create explanatory drawings communicating:
  - Form evolution and development
  - How design elements create brand recognition
  - Consistency across vehicle types

Week 4: Final Drawing Portfolio & Physical Model

Final Drawing Portfolio

- Create a comprehensive set of finished drawings:
  - Large-scale form studies showing complete vehicle design
  - Detailed technical drawings of key components

- Expressive line drawings highlighting character elements
- Sequential drawings showing different viewpoints

- Ensure drawings effectively communicate:
  - Overall form and proportion
  - Technical feasibility and function
  - Brand identity and character
  - Human scale and interaction

Physical Form Model

- Build a physical model based on your drawings:
  - Accurate translation of drawn proportions to 3D form
  - Precise representation of key character lines
  - Clear expression of surface development
  - Proper finish to show form clearly

- Use the model to verify and refine drawn concepts

Exhibition

- Create presentation boards showing:
  - Drawing development process
  - Final comprehensive drawings
  - Relationship between drawings and physical model

- Develop an infographic explaining:
  - How different drawing techniques contributed to design development
  - Key proportional relationships in your design
  - How form creates brand identity

- Deliverable: Drawing Portfolio, Physical Model & Exhibition Display

Drawing Requirements

Basic Drawing Requirements

- Clear use of fundamental shapes and forms
- Strong compositional structure
- Effective use of proportion and scale
- Visual balance and harmony

Objective Drawing Requirements

- Accurate perspective and projection
- Precise scale and measurement
- Clear technical detail and specificity
- Proper cross-sections and cutaways

Contour Drawing Requirements

- Expressive line quality and weight
- Clear definition of edges and boundaries
- Effective use of line to show form
- Character-defining curves and transitions

Alternative Approaches

Limited Resources Alternative

- Create drawings using basic tools (pencil, pen, marker)
- Use manual perspective techniques
- Include explanation of how additional drawing tools would enhance the project

Traditional Approach Alternative

- Use classical drawing techniques and materials
- Create hand-rendered presentations
- Include explanation of how digital drawing tools would enhance the process

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Basic Drawing	Exceptional use of fundamental forms; perfect proportion; excellent compositional balance	Good use of basic forms; appropriate proportion; solid composition	Weak grasp of fundamental forms; proportion problems; poor composition
Objective Drawing	Precise perspective; flawless technical accuracy; excellent detail; perfect scale	Accurate perspective; good technical representation; appropriate detail	Perspective errors; technical inaccuracies; missing important details
Contour Drawing	Masterful line quality; perfect edge definition; exceptional character expression	Effective line work; clear edges; good character definition	Poor line quality; undefined edges; weak character expression
Form Communication	Outstanding representation of 3D form; innovative techniques for showing volume	Good representation of form; clear volume and mass	Flat representation; unclear volume relationships
Technical Clarity	Excellent structural logic; perfect mechanical feasibility; clear function	Good structural representation; feasible mechanics; understandable function	Unclear structure; questionable mechanics; confusing function
Brand Identity	Perfect form language consistency; exceptional distinctive character	Good consistency in form; clear brand character	Inconsistent form language; generic character
Drawing-Model Translation	Flawless translation from 2D to 3D; perfect form verification	Good translation to 3D; accurate form representation	Poor translation; significant form discrepancies
Presentation	Outstanding drawing portfolio; excellent progression; perfect craftsmanship	Complete portfolio; clear progression; good craftsmanship	Incomplete portfolio; unclear development; poor craftsmanship

PEDAGOGY EXEMPLARS

- *Experiential Learning; Self-directed Learning:* Using self-directed learning, select any two dry or wet media to create objective drawings using basic contours and forms.

  Consider individual learning abilities as well as encouraging learners to use diversity in selecting materials and forms from the environment.

- *Experiential Learning; Problem-based Learning:* In forming small groups/working as an individual, use non-conventional materials to create compositions using modern and industrial approaches.

  Consider individual learning abilities and socio-cultural as well as encouraging learners to use diversity in selecting non-conventional materials and industrial approaches from the environment.

- *Communication and Collaborative Learning:* In class discussions, distinguish between conventional and non-conventional media and techniques for creative expression.

KEY ASSESSMENT

Level 4: Practical Assessment

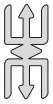
Teacher should refer to Integrated Art & Design Project Two

PLC SESSION 22

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)

c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app

a. The key assessment for the week is ***practical assessment***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the practical assessment (NTS 3k-3q).

10 minutes	Content Exploration

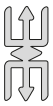
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	**Reflection**

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).

8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).

9. Remember to

a. transfer your chats into your learning planner template.

b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).

c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

WEEK 24

Learning Indicator: *Compose appropriate tonal values and hues for forms of resemblance*

FOCAL AREA: COMPOSITION AND TONAL VALUES

1. EXPLORING TONAL VALUES
2. APPLICATION OF NON-CONVENTIONAL MATERIALS FOR DRAWING

COMPOSITION AND TONAL VALUES IN DRAWING

Drawing is fundamentally about translating what we see or imagine into visual form. Two essential elements that enhance drawing from simple outlines to rich, expressive artwork are composition and tonal values.

Composition refers to the careful arrangement of visual elements within your drawing space. It influences how the viewer's eye moves through your work and the emotional impact it has. Good composition is intentional it follows principles of balance, rhythm, emphasis, and unity. Whether using the rule of thirds, creating dynamic diagonal arrangements, or employing negative space, composition changes separate elements into a cohesive visual statement.

Tonal values relate to the range of lightness and darkness in your drawing. This gradient from white to black creates the illusion of three-dimensional form on a flat surface. By managing tonal values effectively, artists can suggest volume, depth, texture, and light direction. A drawing with a limited tonal range may appear flat, while one with varied tones produces a convincing sense of reality or dramatic atmosphere.

Exploring tonal values means understanding how light interacts with different surfaces and forms. Artists develop this skill by creating value scales, studying how shadows fall across objects, and observing how light produces highlights, midtones, and deep shadows. Through careful observation and practice, artists learn to see beyond outlines to the subtle gradations that define form.

Non-Conventional Materials

Exploring non-traditional materials opens up exciting new ways to create art, allowing you to work with textures and colours that regular pencils and charcoal can't offer. Think about using coffee grounds, tea stains, or even ash and soil. These materials, along with things like plant dyes and scraps of fabric, threads etc can add unique textures and tones to your work.

Using these unexpected materials can bring a fun element of surprise, often leading artists to new and creative ideas. With careful planning and a good understanding of light and shadow, artists can create drawings that truly captivate viewers with their depth and beauty, whether they're using traditional or unconventional tools. To embark on this artistic journey, it's important to practice your skills and be open to trying new things. The ability to show form, space, and mood will make this exploration an essential part of any serious drawing adventure.

Learning Task

Integrated Art & Design Project One

Market Stall Design using Composition and Tonal Values and Non-Conventional Materials Application.

Task Description

Design a sustainable market facility using advanced compositional strategies and tonal value techniques. Your drawings must demonstrate mastery of composition principles and tonal value application, using both conventional and non-conventional materials to create a functional, culturally relevant market space.

Group Structure

Work in groups of 3-5 members. Each member will develop one initial concept exploring different compositional approaches and tonal value techniques.

Timeline

Week 1: Compositional Analysis & Tonal Value Research Week 2: Concept Development Through Composition and Value Week 3: Advanced Tonal Techniques & Non-conventional Materials Week 4: Final Drawing Portfolio & Exhibition

Weekly Tasks

Week 1: Compositional Analysis & Tonal Value Research

Market Analysis Through Composition and Value

- Visit local markets to document structures through:
  - Compositional studies: Analyse balance, rhythm, emphasis, and unity
  - Value studies: Record light and shadow patterns, contrast relationships
  - Textural studies: Document surface qualities and material characteristics
- Create analytical drawings showing:
  - How compositional elements create effective market spaces
  - How light and shadow define spatial experience

- How material textures contribute to market atmosphere

Tonal Value Technique Development

- Practice specific value techniques:
  - Value scales: Create graduated tonal ranges from light to dark
  - Atmospheric perspective: Show depth through value transition
  - Chiaroscuro studies: Explore dramatic light and shadow contrasts
- Experiment with non-conventional drawing materials:
  - Natural materials (coffee, tea, soil, plant extracts)
  - Found materials (ash, charcoal, sand, spices)
  - Repurposed materials (fabric, paper, plastics)

Initial Concept Sketches

- Each member develops preliminary drawings exploring:
  - Compositional studies: Explore different organizational principles
  - Value studies: Investigate light sources and shadow patterns
  - Material studies: Test non-conventional materials for textural effects
- Select two concepts for further development based on compositional strength and tonal richness

Week 2: Concept Development Through Composition and Value

Compositional Development

- Develop selected concepts through compositional refinement:
  - Golden ratio and rule of thirds applications
  - Symmetrical and asymmetrical balance explorations
  - Rhythm and repetition studies
- Create drawings that explore:
  - Focal point establishment through value contrast
  - Visual flow creation through compositional devices
  - Spatial depth through overlapping elements

Tonal Value Development

- Refine concepts through value application:
  - Light source studies showing different illumination scenarios
  - Value mapping to establish clear hierarchies
  - Contrast studies to emphasize important elements

- Create drawings that communicate:
  - Atmospheric qualities through value gradation
  - Material qualities through textural rendering
  - Spatial relationships through value progression

Material Exploration

- Enhance concepts through non-conventional material testing:
  - Layering techniques with different materials
  - Subtractive methods (scraping, lifting, erasing)
  - Textural applications (rubbing, stamping, impressing)

- Create sample boards showing:
  - How different materials create unique tonal effects
  - How materials can be combined for richer expression
  - How materials respond to different surfaces and conditions

Week 3: Advanced Tonal Techniques & Non-conventional Materials

Integrated Compositional and Tonal Development

- Create comprehensive drawings combining:
  - Strong compositional frameworks
  - Rich tonal value relationships
  - Innovative material applications

- Develop drawings showing:
  - How composition and value work together to create focus
  - How light and shadow define architectural form
  - How texture enhances spatial experience

Advanced Material Application

- Create drawings using selected non-conventional materials:
  - Large-scale tonal studies with primary materials
  - Mixed media explorations combining multiple materials
  - Experimental techniques pushing material possibilities

- Develop methods for:
  - Controlling non-conventional materials for precise effects
  - Creating durable applications that would not deteriorate
  - Achieving specific tonal values with unusual materials

Functional & Cultural Integration

- Refine drawings to show clearly:
  - How composition supports market function
  - How tonal values enhance spatial understanding
  - How material choices reflect cultural context
- Create explanatory drawings that communicate:
  - How compositional choices support user experience
  - How light and shadow enhance functionality
  - How textural elements connect to local traditions

Week 4: Final Drawing Portfolio & Exhibition

Final Drawing Portfolio

- Create a comprehensive set of finished drawings, including:
  - Large-scale compositional drawings with full tonal range
  - Detailed studies showing material application and texture
  - Process documentation showing material experimentation
- Ensure drawings effectively communicate:
  - Strong compositional organization
  - Rich tonal value relationships
  - Innovative use of non-conventional materials

Material Sample Collection

- Create a catalogue of material samples:
  - Labelled examples of all materials used
  - Process documentation showing application techniques
  - Durability and preservation notes
- Include information about:
  - Material sources and sustainability
  - Cultural significance of selected materials
  - Technical application methods

Exhibition

- Mount a professional exhibition including:
  - Process drawings showing compositional and tonal development
  - Final comprehensive drawings showing complete design
  - Material samples and application demonstrations

- Be prepared to explain:
  - How compositional choices enhance the market design
  - How tonal values create spatial understanding
  - How non-conventional materials contribute to expression

Materials Needed

- Drawing paper of various weights, colours, and textures
- Conventional drawing tools (pencils, charcoal, ink)
- Collection of non-conventional materials
- Fixatives and binding mediums
- Tools for material application (brushes, sticks, cloths)
- Mounting materials for exhibition

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Compositional Strength	Exceptional balance, rhythm, and unity; powerful focal points; masterful use of compositional principles	Good balance and unity; clear focal points; effective use of compositional principles	Weak compositional organization; unclear focal points; limited application of principles
Tonal Value Range	Rich, nuanced tonal gradation; excellent contrast; masterful value mapping	Good tonal variation; appropriate contrast; clear value relationships	Limited tonal range; poor contrast; confusing value relationships
Non-conventional Materials	Innovative material exploration; excellent technical control; materials enhance expression	Good material selection; appropriate application; materials support concept	Limited material exploration; poor technical application; materials distract from concept
Light & Shadow	Convincing light sources; excellent shadow casting; powerful atmospheric effects	Clear light direction; good shadow representation; effective atmosphere	Inconsistent lighting; poor shadow logic; minimal atmospheric quality
Textural Expression	Rich textural variety; excellent surface quality representation; texture enhances understanding	Good textural elements; appropriate surface representation; texture supports concept	Minimal texture; poor surface representation; texture unrelated to concept

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Material Integration	Perfect harmony between materials and concept; materials enhance meaning and function	Good relationship between materials and concept; materials support design intent	Disconnected material choices; materials conflict with design intent
Technical Execution	Outstanding craftsmanship; excellent material control; innovative techniques	Good craftsmanship; appropriate material handling; solid techniques	Poor craftsmanship; limited material control; basic techniques
Presentation	Exceptional presentation; professional mounting; compelling visual narrative	Good presentation; appropriate mounting; clear visual narrative	Disorganized presentation; poor mounting; unclear narrative

Integrated Art & Design Project Two

Future Fleet: School Vehicle Form Identity Redesign

1. Integrated Art & Design Project: Vehicle Form Study using tonal values and the non-conventional materials for drawing

Project Brief

Apply advanced drawing techniques to reimagine school vehicles with striking, futuristic forms. Demonstrate how composition, tonal values, and non-conventional materials can work together to communicate innovative design, structural clarity, and distinctive brand identity.

Group Structure

Groups of 3-5 members. Each member develops one concept using various rendering techniques and non-conventional materials to explore vehicle form, structure, and tonal relationships.

Project Overview

Create compelling vehicle designs using progressive drawing techniques and non-conventional materials. Show how different tonal values, compositional principles, and material explorations can effectively communicate form, proportion, structure, and spatial relationships in vehicle design.

Timeline

Week 1: Form Analysis, Tonal Value & Material Exploration

Week 2: Concept Development Through Compositional Principles & Non-conventional Materials

Week 3: Advanced Rendering & Tonal Refinement with Mixed Media

Week 4: Final Drawing Portfolio & Physical Model

Weekly Tasks

Week 1: Form Analysis, Tonal Value & Material Exploration

Research Phase

- Document current vehicle forms through:
  - Value studies capturing light and shadow relationships
  - Compositional analysis using Rule of Thirds grid
  - Tonal drawings defining volume and form transitions
- Create analysis drawings showing:
  - How tonal values create visual depth and form
  - Key compositional relationships in successful designs
  - Important light-to-dark transitions that define character
- Research contemporary automotive rendering approaches

Non-conventional Material Exploration

- Experiment with non-conventional drawing materials:
  - Recycled materials (plastic bags, bottle caps, packaging)
  - Natural elements (leaves, bark, seeds, sand)
  - Found objects (string, wire, fabric scraps)
  - Digital waste (old CDs, electronic components)
  - Industrial by-products (metal shavings, sawdust, fabric scraps)

Tonal Technique Development

- Practice specific vehicle rendering techniques using non-conventional materials:
  - Value studies using coffee, tea, or food colouring
  - Create a 24-scale tonal value chart using charred wood or soot
  - Line weight studies using string, wire, or thread
- Develop skills in representing:
  - Reflective surfaces through collaged metallic materials

- Complex curved surfaces using layered transparent materials
- Material distinctions through textural applications

Concept Generation

- Each member develops one concept exploring:
  - Tonal composition: Overall vehicle proportion and stance
  - Value mapping: Accurate structural and mechanical elements
  - Non-conventional rendering: Character-defining surfaces and transitions
- Required drawings:
  - Tonal form studies showing basic volumes using alternative materials
  - Compositionally balanced orthographic views using mixed media
  - Textural drawings highlighting distinctive surface treatments
- Select two concepts for development

Week 2: Concept Development Through Compositional Principles & Non-conventional Materials

Form Development

- Develop selected concepts through compositional principles:
  - Apply the Rule of Thirds, using grid layouts made from non-conventional materials
  - Use the Rule of Odds for grouping design elements with textural variations
  - Implement the Rule of Space using negative space techniques with found materials
- Create drawings exploring:
  - Balance and harmony using contrasting material applications
  - Rhythm and continuity through repeated textural elements
  - Emphasis of key design elements through material contrast

Technical Development

- Refine concepts through objective tonal rendering with non-conventional materials:
  - Accurate perspective drawings with a consistent light source using layered materials
  - Precise sectional drawings revealing internal structure through material density
  - Detailed renderings of key components using appropriate textural applications

- Create drawings communicating:
  - Exact proportions through careful material mapping
  - Mechanical and structural logic through material differentiation
  - Human interaction and ergonomics through scale and proportion

Character Development

- Enhance concepts through non-conventional rendering techniques:
  - Collage for complex surface articulation
  - Frottage (rubbing) for capturing interesting textures
  - Assemblage for creating tactile surface treatments

- Create drawings showing:
  - Character-defining surfaces through material variation
  - Surface tension and continuity through textural relationships
  - Brand identity through a consistent material approach

Week 3: Advanced Rendering & Tonal Refinement with Mixed Media

Integrated Drawing Development

- Create comprehensive drawings combining multiple techniques and materials:
  - Establish overall form and proportion through tonal composition with found materials
  - Provide technical accuracy and detail through precise material application
  - Emphasise character and brand identity through innovative material combinations

- Develop drawings showing:
  - Complete vehicle from multiple angles with consistent material language
  - Key details and features with appropriate textural emphasis
  - Form relationships and transitions through careful material control

Detail Visualisation

- Create drawings communicating:
  - Surface development through material gradation
  - Material transitions through textural differentiation
  - Functional elements through strategic material contrast

- Develop techniques for showing:
  - Complex curved surfaces using layered transparent materials
  - Transparent and solid relationships through material density
  - Mechanical elements through precise material application

Brand Identity Through Form

- Refine drawings to clearly show:
  - Distinctive material language across vehicle family
  - Consistent textural relationships in key areas
  - Signature elements and details with appropriate material emphasis

- Create explanatory drawings communicating:
  - Form evolution through progressive material studies
  - How material choices create brand recognition
  - Consistency across vehicle types through unified material approach

Week 4: Final Drawing Portfolio & Physical Model

Final Drawing Portfolio

- Create a comprehensive set of finished drawings:
  - Large-scale mixed media studies showing complete vehicle design
  - Detailed technical drawings with precise material mapping
  - Expressive textural drawings highlighting character elements
  - Sequential drawings showing different viewpoints with consistent material language

- Ensure drawings effectively communicate:
  - Overall form and proportion through compositional principles
  - Technical feasibility and function through accurate material representation
  - Brand identity and character through consistent material approach
  - Human scale and interaction through proportional relationships

Physical Form Model

- Build a physical model based on your drawings:
  - Accurate translation of drawn proportions to 3D form
  - Precise representation of key character lines
  - Clear expression of surface development
  - Use of non-conventional materials that echo your drawing explorations

- Use the model to verify and refine drawn concepts

Exhibition

- Create presentation boards showing:
  - Drawing development process with material progression
  - Final comprehensive drawings with consistent material application

- Relationship between drawings and physical model

- Develop an infographic explaining:
  - How different non-conventional materials contributed to design development
  - Key textural relationships in your design
  - How composition and material choice create brand identity

Deliverable: Drawing Portfolio, Physical Model & Exhibition Display

Drawing Requirements

Tonal Value Requirements

- Clear use of light and shadow to define form
- Strategic use of contrast to emphasize key elements
- Effective use of gradation to show curved surfaces
- Consistent light source across all drawings

Compositional Requirements

- Application of Rule of Thirds for dynamic vehicle placement
- Effective use of Rule of Odds for grouping design elements
- Strategic implementation of Rule of Space to show movement
- Visual balance and harmony in overall arrangement

Non-conventional Material Requirements

- Innovative use of recycled, found, or repurposed materials
- Appropriate material selection for different surface representations
- Effective integration of materials with traditional drawing techniques
- Consistent material language across the project

Alternative Approaches

Limited Resources Alternative

- Create tonal drawings using locally available non-conventional materials
- Use manual application techniques with found objects
- Include explanation of how additional materials would enhance the project

Traditional Approach Alternative

- Use classical drawing techniques enhanced with minimal non-conventional materials
- Create hand-rendered tonal presentations with material accents
- Include explanation of how additional non-conventional materials would enhance the process

Assessment Criteria

Criteria	Exemplary (85-100%)	Proficient (70-84%)	Developing (50-69%)
Tonal Values	Masterful light/shadow control; exceptional gradation	Effective value range; good transitions	Limited value range; weak transitions
Composition	Superior compositional principles; perfect balance	Good composition; effective arrangement	Basic composition; unbalanced elements
Non-conventional Materials	Innovative material application; seamless integration	Appropriate material use; good integration	Limited material exploration; poor integration
Form Communication	Outstanding 3D representation; compelling volume	Clear form representation; good volume	Flat representation; unclear volume
Technical Clarity	Excellent structural logic; perfect feasibility	Good structural accuracy; feasible design	Unclear structure; questionable feasibility
Brand Identity	Distinctive material language; strong character	Consistent approach; recognizable character	Generic approach; weak character
Drawing-Model Translation	Perfect 2D to 3D translation; excellent continuity	Accurate translation; good material continuity	Inaccurate translation; poor continuity
Presentation	Exceptional portfolio; flawless craftsmanship	Complete portfolio; good craftsmanship	Incomplete portfolio; poor craftsmanship

PEDAGOGY EXEMPLARS

1. ***Problem-based Learning:*** Using brainstorming, explain how appropriate tonal values and hues can be used to create forms of resemblance.
2. ***Experiential Learning; Self-directed Learning:*** With self-directed learning, use appropriate tonal values and hues to create forms of resemblance

3. ***Experiential Learning:*** Based on the composition produced in Task 2, reflect on the final work and present an appreciation and criticism.

KEY ASSESSMENT

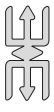
Level 4: Demonstration

Refer to projects under the Learning tasks

PLC SESSION 24

45 minutes	Planning & Reviewing the Learning Plan

1. Begin the session by recapping lessons from the previous year/session/week, focusing on how learning was applied.
2. Use your subject specific app to explore the content before planning. Ask the app to
   a. explain the week's concepts in a practical way that will make it easier for learners to understand
   b. identify two or three common misconceptions learners may have on the week's content and how to address them using contexts familiar to Ghanaian learners. (NTS 3a, 3g and 3m).
3. Use your subject specific app to plan your lesson. Ask the app to
   a. suggest the most effective method for teaching the week's concepts to learners with diverse backgrounds.
   b. suggest learning activities, differentiation and essential questions based on the method of teaching (NTS 3a-3q)
   c. review your prepared learning plan and address any challenging issues you may have identified in your subject area (NTS 3a-3c).



Note

- *Take note of the recap topics linked to Years 1 and 2 while preparing for your lesson.*
- *Refer to the Values Learning Community Handbook and link the values for the week in your lesson to ensure that learners are applying what they learn.*

4. Plan the week's key assessment with your app
   a. The key assessment for the week is ***demonstration***. Chat with your app to plan this assessment, indicating what you and your learners will do before, during and after the demonstration (NTS 3k-3q).

10 minutes	Content Exploration

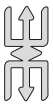
5. As a subject group, select one problem or idea/term in the week's content that is challenging (not a routine procedural question, but one that requires conceptual understanding) and then

a. use the app, ask it to solve the problem step by step and explain the reasoning behind each step (you may be assisted by a teacher who is strong in the content area)

b. all teachers in the group work through a similar problem individually for 3–4 minutes

c. the group then works through the problem together step by step

d. highlight the most common errors made at each step and discuss (NTS 1c, 1e, 2c, 2e, 3e-3j).



Note

- *This part is not just about 'How do I teach this?' but how do I teach it for learners to understand?*
- *If the group still shares the same content gap, use the app: ask it to solve the problem step by step and explain the reasoning behind each step.*
- *Problems/ideas discussed should be sourced from the Teacher Manual content, not invented separately. This keeps the content exploration directly connected to what teachers will deliver.*

30 minutes	Enactment

6. Enact a teaching activity based on your learning plan (NTS la-1b, 1e-lg, 2c, 2e, 2f, 3c-3j and 3o).

a. Colleagues observe with specific attention to clarity of concept explanation, use of familiar Ghanaian examples and how misconceptions are handled if they arise.

b. After the enactment, ask for structured feedback from the group

i. was the concept explained in a way that a learner with no prior knowledge could follow?

ii. were the examples grounded in contexts familiar to Ghanaian learners?

iii. did any misconceptions surface and if so, how were they addressed?

5 minutes	Reflection

7. Reflect and share your views on the session. One thing that worked well, what did not work well and what you will do differently. (NTS 1a, 1b).
8. Identify a critical friend to observe and provide feedback on your lesson in relation to the PLC Session conducted (NTS 1f, 1g).
9. Remember to
   a. transfer your chats into your learning planner template.
   b. read your Teacher Manual and related Learner Material in preparation for the next session. Take note of the recap weeks, which are linked to Years 1 and 2 (NTS 3a).
   c. integrate National Values, GESI, SEL, and 21st century skills into your learning activities, assessment tasks, and rubrics/mark schemes.

Section 7 Review

This section explored the creative potential of contour drawing and tonal representation through both conventional understanding and innovative approaches. learners developed observational skills whilst experimenting with non-conventional materials to create expressive compositions that balance technical precision with creative innovation.

Through experiential learning activities, learners discovered how basic contours can capture essential forms, progressing to more complex manipulations of tonal values to create convincing three-dimensional representations. The project-based approach encouraged strategic decision-making about material selection and application, whilst collaborative discussions established theoretical frameworks for understanding conventional versus innovative techniques.

Assessment incorporated multiple strategies including practical demonstrations, critique sessions and portfolio development, evaluating both technical proficiency and critical thinking skills. These approaches effectively measured Level 3 strategic reasoning through structured application tasks and Level 4 extended critical thinking through reflective components.

learners demonstrated growth in both technical drawing skills and conceptual understanding, developing personal approaches to form and tone that transcend conventional limitations. This foundation in experimental drawing provides essential skills for future artistic development whilst encouraging innovation and personal expression.

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