

# GEOGRAPHY

CURRICULUM FOR SECONDARY  
EDUCATION (SHS 1 – 3)



NATIONAL COUNCIL FOR  
CURRICULUM & ASSESSMENT  
OF MINISTRY OF EDUCATION



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**(SHS 1-3)**

September, 2023



**NATIONAL COUNCIL FOR  
CURRICULUM & ASSESSMENT  
OF MINISTRY OF EDUCATION**

## **GEOGRAPHY**

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## FOREWORD

Through the National Council for Curriculum and Assessment (NaCCA), Ghana's Ministry of Education has introduced a series of curriculum reforms to improve the quality and relevance of learning experiences in pre-tertiary schools in the country. These reforms will improve learning through the introduction of innovative pedagogies that encourage critical thinking and problem-solving. For a long time, our learners memorise facts and figures, which does not develop their analytical and practical skills. The Ministry recognises that learners need to be equipped with the right tools, knowledge, skills and competencies to deal with the fast-changing environment and the challenges facing their communities, the nation and the world.

These curriculum reforms were derived from the Education Strategic Plan (ESP 2018-2030), the National Pre-tertiary Education Curriculum Framework (NPTECF) and the National Pre-Tertiary Learning Assessment Framework (NPLAF), which were all approved by Cabinet in 2018. The new standards-based curriculum implemented in 2019 in basic schools, aims to equip learners to apply their knowledge innovatively to solve everyday problems. It also prioritises assessing learners' knowledge, skills, attitudes, and values, emphasising their achievements. The content of the basic school standards-based curriculum was therefore designed to promote a curriculum tailored to the diverse educational needs of the country's youth. It addresses the current curriculum's deficiencies in learning and assessment, especially in literacy and numeracy. These reforms have been carried out in phases. The curriculum for the basic school level – KG, Primary and Junior High School (JHS) – was developed and implemented from 2019 to 2021.

The curriculum for Senior High School (SHS), Senior High Technical School (SHTS) and Science, Technical, Engineering and Mathematics (STEM), which constitutes the next phase, is designed to ensure the continuation of learning experiences from JHS. It introduces flexible pathways for progression to facilitate the choice of subjects necessary for further study, the world of work and adult life. The new SHS, SHTS and STEM curriculum emphasises the acquisition of 21<sup>st</sup> Century skills and competencies, character development and instilling of national values. Social and Emotional Learning (SEL), Information Communications Technology, Gender Equality and Social Inclusion, have all been integrated into the curriculum. Assessment – formative and summative has been incorporated into the curriculum and aligned with the learning outcomes throughout the three-year programme.

The Ministry of Education's reform aims to ensure that graduates of our secondary schools can successfully compete in international high school competitions and, at the same time, be equipped with the necessary employable skills and work ethos to succeed in life. The Ministry of Education, therefore, sees the Senior High School (SHS) curriculum as occupying a critical place in the education system – providing improved educational opportunities and outcomes for further studies, the world of work and adult life – and is consequently prioritising its implementation.

## ACKNOWLEDGEMENTS

This standards-based SHS curriculum was created using the National Pre-Tertiary Learning Assessment Framework (NPLAF), the Secondary Education Assessment Guide (SEAG), and the Teacher and Learner Resource Packs which include Professional Learning Community (PLC) Materials and Subject Manuals for teachers and learners. All the above-mentioned documents were developed by the National Council for Curriculum and Assessment (NaCCA). The Ministry of Education (MoE) provided oversight and strategic direction for the development of the curriculum with NaCCA receiving support from multiple agencies of the MoE and other relevant stakeholders. NaCCA would like to extend its sincere gratitude, on behalf of the MoE, to all its partners who participated in the professional conversations and discussions during the development of this SHS curriculum.

In particular, NaCCA would also like to extend its appreciation to the leadership of the Ghana Education Service (GES), the National School Inspectorate Authority (NaSIA), the National Teaching Council (NTC), the Commission for Technical and Vocational Education and Training (Commission for TVET), West African Examinations Council (WAEC) and other agencies of the MoE that supported the entire process. In addition, NaCCA acknowledges and values the contributions

made by personnel from various universities, colleges of education Industry players, Vice Chancellors Ghana, Vice Chancellors Technical Universities as well as educators and learners working within the Ghana education landscape.

Special appreciation is extended to consultants who contributed to development of the curriculum. The development process involved multiple engagements between national stakeholders and various groups with interests in the curriculum. These groups include the teacher unions, the Association of Ghana Industries, and heads of secondary schools.

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## THE SHS CURRICULUM OVERVIEW

The vision for this curriculum is to ensure the nation has a secondary education system that enables all Ghanaian children to acquire the 21st Century skills, competencies, knowledge, values and attitudes required to be responsible citizens, ready for the world of work, further studies and adult life. The nation's core values drive the SHS curriculum, and it is intended to achieve Sustainable Development Goal 4: 'Inclusive, equitable quality education and life-long learning for all'. Above all, it is a curriculum enabling its graduates to contribute to the ongoing growth and development of the nation's economy and well-being.

The curriculum is inclusive, flexible, and robust. It was written under the auspices of the National Council for Curriculum and Assessment by a team of expert curriculum writers across Ghana. It reflects the needs of critical stakeholders, including industry, tertiary education, the West African Examination Council, SHS learners, teachers, and school leaders. It has been written based on the National Pre-Tertiary Learning and Assessment Framework and the Secondary Education Policy.

The key features of the curriculum include:

- flexible learning pathways at all levels, including for gifted and talented learners and those with deficiencies in numeracy and literacy, to ensure it can meet the needs of learners from diverse backgrounds and with different interests and abilities.
- the five core learning areas for secondary education: science and technology, language arts, humanities, technical and vocational and business; with emphasis placed on STEM and agriculture as integral to each subject.
- a structured, standards-based approach that supports the acquisition of knowledge, skills and competencies, and transition and seamless progress throughout secondary education, from JHS to SHS and through the three years of SHS.
- a focus on interactive approaches to teaching and assessment to ensure learning goes beyond recall enabling learners to acquire the ability to understand, apply, analyse and create.
- guidance on pedagogy, coupled with exemplars, demonstrating how to integrate cross-cutting themes such as 21st Century skills, core competencies,

the use of ICT, literacy and mathematics, Social Emotional Learning, Gender Equality and Social Inclusion as tools for learning and skills for life. Shared Ghanaian values are also embedded in the curriculum.

The curriculum writing process was rigorous and involved developing and using a Curriculum Writing Guide which provided systematic instructions for writers. The process was quality assured at three levels: through (a) evaluation by national experts, (b) trialling curriculum materials in schools and (c) through an external evaluation by a team of national and international experts. Evidence and insights from these activities helped hone the draft's final version. The outcome is a curriculum coherently aligned with national priorities, policies and the needs of stakeholders. A curriculum tailored to the Ghanaian context ensures that all learners benefit from their schooling and develop their full potential.

The following section highlights the details of the front matter of the draft curriculum. The vision, philosophy and goal of the curriculum are presented. This is followed by the details of the 21st Century skills and competencies, teaching and learning approaches, instructional design and assessment strategies. The template for the curriculum frame, which outlines the scope and sequence, the design that links the learning outcomes to particular 21st Century skills and competencies, as well as Gender Equality and Social Inclusion, Social and Emotional Learning and Ghanaian values are presented together with the structure of the lesson frame showing the links between the content standards, learning indicators with their corresponding pedagogical exemplars and assessment strategies.

## INTRODUCTION

Effective implementation of this Senior High School (SHS) curriculum is the key to creating a well-educated and well-balanced workforce that is ready to contribute to Ghana's progress by harnessing the potential of the growing youth population, considering the demographic transition the country is currently experiencing (Educational Strategic Plan [ESP] 2018-2030). SHS curriculum aims to expand equitable, inclusive access to relevant education for all young people, including those in disadvantaged and underserved communities, those with special educational needs and those who are gifted and talented. Senior High School allows young people to develop further skills and competencies and progress in learning achievement, building from the foundation laid in Junior High School. This curriculum intends to meet the learning needs of all high school learners by acquiring 21st Century skills and competencies to prepare them for further studies, the world of work and adult life. Changing global economic, social and technological context requires life-long learning, unlearning, and continuous processes of reflection, anticipation and action.

### Philosophy of Senior High School Curriculum

*The philosophy underpinning the SHS curriculum is that every learner can develop their potential to the fullest if the right environment is created and skilled teachers effectively support them to benefit from the subjects offered at SHS. Every learner needs to be equipped with skills and competencies of interest to further their education, live a responsible adult life or proceed to the world of work.*

### Vision of Senior High School Curriculum

*The vision of the curriculum is to prepare SHS graduates equipped with relevant skills and competencies to progress and succeed in further studies, the world of work and adult life. It aims to equip all learners with the 21st Century skills and competencies required to be responsible citizens and lifelong learners. When young people are prepared to become effective, engaging, and responsible citizens, they will contribute to the ongoing growth and development of the nation's economy and well-being.*

### Goal of Senior High School Curriculum

The goal of the curriculum is to achieve relevant and quality SHS through the integration of 21st Century skills and competencies as set out in the Secondary Education Policy. The key features to integrate into the curriculum are:

- Foundational Knowledge: literacy, numeracy, scientific literacy, information, communication and digital literacies, financial literacy and entrepreneurship, cultural identity, civic literacy and global citizenship
- Competencies: critical thinking and problem-solving, innovation and creativity, collaboration, and communication
- Character Qualities: discipline, integrity, self-directed learning, self-confidence, adaptability and resourcefulness, leadership, and responsible citizenship.

The JHS curriculum has been designed to ensure that learners are adequately equipped to transition seamlessly into SHS, where they will be equipped with the relevant knowledge, skills and competencies. The SHS curriculum emphasises character building, acquisition of 21st Century skills and competencies and nurturing core values within an environment of quality education to ensure the transition to further study, the world of work and adult life. This requires the delivery of robust secondary education that meets the varied learning needs of the youth in Ghana. The SHS curriculum, therefore, seeks to develop learners to become technology-inclined, scientifically literate, good problem-solvers who can think critically and creatively and are equipped to communicate with fluency, and possess the confidence and competence to participate fully in Ghanaian society as responsible local and global citizens – (referred to as 'Glocal citizens').

The SHS curriculum is driven by the nation's core values of truth, integrity, diversity, equity, discipline, self-directed learning, self-confidence, adaptability and resourcefulness, leadership, and responsible citizenship, and with the intent of achieving the Sustainable Development Goal 4: 'Inclusive, equitable quality education and life-long learning for all'. The following sections elaborate on the critical competencies required of every SHS learner:

## Gender Equality and Social Inclusion (GESI)

- Appreciate their uniqueness about others.
- Pay attention to the uniqueness and unique needs of others.
- Value the perspective, experience, and opinion of others.
- Respect individuals of different beliefs, political views/ leanings, cultures, and religions.
- Embrace diversity and practise inclusion.
- Value and work in favour of a democratic and inclusive society.
- Be conscious of the existence of minority and disadvantaged groups in society and work to support them.
- Gain clarity about misconceptions/myths about gender, disability, ethnicity, age, religion, and all other excluded groups in society
- Interrogate and dispel their stereotypes and biases about gender and other disadvantaged and excluded groups in society.
- Appreciate the influence of socialisation in shaping social norms, roles, responsibilities, and mindsets.
- Identify injustice and advocate for change.
- Feel empowered to speak up for themselves and be a voice for other disadvantaged groups.

## 21<sup>st</sup> Century Skills and Competencies

In today's fast-changing world, high school graduates must be prepared for the 21<sup>st</sup> Century world of work. The study of Mathematics, Science, and Language Arts alone is no longer enough. High school graduates need a variety of skills and competencies to adapt to the global economy. Critical thinking, creativity, collaboration, communication, information literacy, media literacy, technology literacy, flexibility, leadership, initiative, productivity, and social skills are needed. These skills help learners to keep up with today's fast-paced job market. Employers want workers with more than academic knowledge. The 21<sup>st</sup> Century skills and competencies help graduates navigate the complex and changing workplace. Also, these help them become active citizens who improve their communities. Acquisition of 21<sup>st</sup> Century skills in high school requires a change in pedagogy from the approach that has been prevalent in Ghana in recent years. Teachers should discourage and abandon rote memorisation and passive learning. Instead, they should encourage active learning, collaboration, and problem-solving, project-

based, inquiry-based, and other learner-centred pedagogy should be used. As well as aligning with global best practices, these approaches also seek to reconnect formal education in Ghana with values-based indigenous education and discovery-based learning which existed in Ghana in pre-colonial times. This is aligned with the 'glocal' nature of this curriculum, connecting with Ghana's past to create confident citizens who can engage effectively in a global world. Digitalisation, automation, technological advances and the changing nature of work globally mean that young people need a new set of skills, knowledge and competencies to succeed in this dynamic and globalised labour market.

## Critical Thinking and Problem-Solving Competency

- Ability to question norms, practices, and opinions, to reflect on one's values, perceptions, and actions.
- Ability to use reasoning skills to come to a logical conclusion.
- Being able to consider different perspectives and points of view
- Respecting evidence and reasoning
- Not being stuck in one position
- Ability to take a position in a discourse
- The overarching ability to apply different problem-solving frameworks to complex problems and develop viable, inclusive, and equitable solution options that integrate the above-mentioned competencies, promote sustainable development,

## Creativity

- Ability to identify and solve complex problems through creative thinking.
- Ability to generate new ideas and innovative solutions to old problems.
- Ability to demonstrate originality and flexibility in approaching tasks and challenges.
- Collaborating with others to develop and refine creative ideas
- Ability to incorporate feedback and criticism into the creative process
- Utilising technology and other resources to enhance creativity
- Demonstrating a willingness to take risks and experiment with new approaches
- Adapting to changing circumstances and further information to maintain creativity

- Integrating multiple perspectives and disciplines to foster creativity
- Ability to communicate creative ideas effectively to a variety of audiences

### **Collaboration**

- Abilities to learn from others; to understand and respect the needs, perspectives, and actions of others (empathy)
- Ability to understand, relate to and be sensitive to others (empathic leadership)
- Ability to deal with conflicts in a group
- Ability to facilitate collaborative and participatory problem-solving
- Ability to work with others to achieve a common goal.
- Ability to engage in effective communication, active listening, and the ability to compromise.
- Ability to work in groups on projects and assignments.

### **Communication**

- Know the specific literacy and language of the subjects studied
- Use language for academic purposes
- Communicate effectively and meaningfully in a Ghanaian Language and English Language
- Communicate confidently, ethically, and effectively in different social contexts.
- Communicate confidently and effectively to different participants in different contexts
- Ability to communicate effectively verbally, non-verbally and through writing.
- Demonstrate requisite personal and social skills that are consistent with changes in society
- Ability to express ideas clearly and persuasively, listen actively, and respond appropriately
- Ability to develop digital communication skills such as email etiquette and online collaboration.
- Ability to engage in public speaking, debate, and written communication.

### **Learning for Life**

- Understand subject content and apply it in different contexts
- Apply mathematical and scientific concepts in daily life

- Demonstrate mastery of skills in literacy, numeracy, and digital literacy.
- Develop an inquiry-based approach to continual learning.
- Be able to understand higher-order concepts and corresponding underlying principles.
- Participate in the creative use of the expressive arts and engage in aesthetic appreciation.
- Use and apply a variety of digital technologies
- Be digitally literate with a strong understanding of ICT and be confident in its application.
- Be equipped with the necessary qualifications to gain access to further and higher education and the world of work and adult life
- Ability to apply knowledge practically in the workplace so that they are able to utilise theory by translating it into practice.
- Develop their abilities, gifts and talents to be able to play a meaningful role in the development of the country
- Be able to think critically and creatively, anticipate consequences, recognise opportunities and be risk-takers
- Ability to pursue self-directed learning with the desire to chart a path to become effective lifelong learners.
- Independent thinkers and doers who show initiative and take action.
- Ability to innovate and think creatively, building on their knowledge base so that they take risks to achieve new goals
- Ability to think critically and solve problems so that they become positive change agents at work, in further study and in their personal lives.
- Be motivated to adapt to the changing needs of society through self-evaluation and ongoing training
- Be able to establish and maintain innovative enterprises both individually and in collaboration with others.
- Be able to ethically prioritise economic values to ensure stability and autonomy
- Show flexibility and preparedness to deal with job mobility
- Be committed towards the improvement of their quality of life and that of others
- Feel empowered in decision-making processes at various levels e.g., personal, group, class, school, etc.

- Be able to seek and respond to assistance, guidance and/or support when needed.
- Ability to make and adhere to commitments.
- Adopt a healthy and active lifestyle and appreciate how to use leisure time well.
- Be enthusiastic, with the knowledge, understanding and skill that enable them to progress to tertiary level, the world of work and adult life.
- Ability to transition from school to the world of work or further study by applying knowledge, skills and attitudes in new situations.
- Be independent, have academic and communication skills such as clarity of expression (written and spoken), and the ability to support their arguments.
- Be innovative and understand the 21st Century skills and competencies and apply them to everyday life.

### **Global and Local (Glocal) Citizenship**

- Appreciate and respect the Ghanaian identity, culture, and heritage
- Be conscious of current global issues and relate well with people from different cultures
- Act in favour of the common good, social cohesion and social justice
- Have the requisite personal and social skills to handle changes in society
- Appreciate the impact of globalisation on the society.
- Ability to be an honest global citizen displaying leadership skills and moral fortitude with an understanding of the wider world and how to enhance Ghana's standing.

### **Systems Thinking Competency**

- Ability to recognise and understand relationships
- Ability to analyse complex systems
- Ability to think of how systems are embedded within different domains and different scales
- Ability to deal with uncertainty

### **Normative Competency**

- Ability to understand and reflect on the norms and values that underlie one's actions

- Ability to negotiate values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions

### **Anticipatory Competency**

- Ability to understand and evaluate multiple futures – possible, probable, and desirable
- Ability to create one's vision for the future.
- Ability to apply the precautionary principle
- Ability to assess the consequences of actions
- Ability to deal with risks and changes

### **Strategic Competency**

- Ability to collectively develop and implement innovative actions that further a cause at the local level and beyond.
- Ability to understand the bigger picture and the implications of smaller actions on them

### **Self-Awareness Competency**

- The ability to reflect on one's role in the local community and (global) society
- Ability to continually evaluate and further motivate one's actions
- Ability to deal with one's feelings and desires

## **Social Emotional Learning (SEL): Five Core Competencies with Examples**

### **I. Self-Awareness**

**Understanding one's emotions, thoughts, and values and how they influence one's behaviour in various situations.** This includes the ability to recognise one's strengths and weaknesses with a sense of confidence and purpose. For instance:

- *Integrating personal and social identities;*
- *Identifying personal, cultural, and linguistic assets;*
- *Identifying one's emotions;*
- *Demonstrating honesty and integrity;*
- *Connecting feelings, values, and thoughts;*



- *Examining prejudices and biases;*
- *Experiencing self-efficacy;*
- *Having a growth mindset;*
- *Developing interests and a sense of purpose;*

## **2. Self-Management**

**The capacity to control one's emotions, thoughts, and actions in a variety of situations and to realise one's ambitions.** This includes delaying obtaining one's desires, dealing with stress, and feeling motivated and accountable for achieving personal and group goals. For instance:

- *Managing one's emotions;*
- *Identifying and utilising stress-management strategies;*
- *Demonstrating self-discipline and self-motivation;*
- *Setting personal and group goals;*
- *Using planning and organisation skills;*
- *Having the courage to take the initiative;*
- *Demonstrating personal and collective agency;*

## **3. Social Awareness**

The capacity to comprehend and care for others regardless of their backgrounds, cultures, and circumstances. This includes caring for others, understanding larger historical and social norms for behaviour in different contexts, and recognising family, school, and community resources and supports. For instance:

- *Recognising others' strengths*
- *Demonstrating empathy and compassion*
- *Caring about others' feelings*
- *Understanding and expressing gratitude*
- *Recognising situational demands and opportunities*
- *Understanding how organisations and systems influence behaviour*

## **4. Relationship Skills**

The capacity to establish and maintain healthy, beneficial relationships and adapt to various social situations and groups. This includes speaking clearly, listening attentively, collaborating, solving problems and resolving conflicts as a group,

adapting to diverse social and cultural demands and opportunities, taking the initiative, and asking for or offering assistance when necessary. For instance:

- *Communicating effectively;*
- *Building positive relationships;*
- *Demonstrating cultural competence;*
- *Working as a team to solve problems;*
- *Constructively resolving conflicts;*
- *Withstanding negative social pressure;*
- *Taking the initiative in groups;*
- *Seeking or assisting when needed;*
- *Advocating for the rights of others.*

## **5. Responsible Decision-Making**

**The capacity to make thoughtful and constructive decisions regarding acting and interacting with others in various situations.** This includes weighing the pros and cons of various personal, social, and group well-being actions. For example:

- *Demonstrating curiosity and an open mind;*
- *Solving personal and social problems;*
- *Learning to make reasonable decisions after analysing information, data, and facts;*
- *Anticipating and evaluating the effects of one's actions;*
- *Recognising that critical thinking skills are applicable both inside and outside of the classroom;*
- *Reflecting on one's role in promoting personal, family, and community well-being;*
- *Evaluating personal, interpersonal, community, and institutional impacts*

## **Learning and Teaching Approaches**

Learning and teaching should develop learners as self-directed and lifelong learners. Learners must be helped to build up deep learning skills and competencies to develop the ability to acquire, integrate and apply knowledge and skills to solve authentic and real-life problems. Learners need to be exposed to a variety of learning experiences to enable them to collaborate with others, construct meaning, plan, manage, and make choices and decisions about their learning. This will allow them to internalise newly acquired knowledge and skills and help them

to take ownership of their education. The 21st Century skills and competencies describe the relevant global and contextualised skills that the SHS curriculum is designed to help learners acquire in addition to the 4Rs (Reading, wRiting, aRithmetic and cReativity). These skills and competencies, as tools for learning and teaching and skills for life, will allow learners to become critical thinkers, problem-solvers, creators, innovators, good communicators, collaborators, digitally literate, and culturally and globally sensitive citizens who are life-long learners with a keen interest in their personal development and contributing to national development.

Given the diverse needs of learners, teachers need to have a thorough grasp of the different pedagogies as they design and enact meaningful learning experiences to meet the needs of different learners in the classroom. The teaching-learning techniques and strategies should include practical activities, discussion, investigation, role play, problem-based, context-based, and project-based learning. Active learning strategies have become increasingly popular in education as they provide learners with meaningful opportunities to engage with the material. These strategies emphasise the use of creative and inclusive pedagogies and learner-centred approaches anchored on authentic and enquiry-based learning, collaborative and cooperative learning, differentiated teaching and learning, holistic learning, and cross-disciplinary learning. They include experiential learning, problem-based learning, project-based learning, and talk-for-learning approaches. Some of the pedagogical exemplars to guide learning and teaching of the SHS curriculum include:

- **Experiential Learning:** Experiential learning is a hands-on approach to learning that involves learners in real-world experiences. This approach focuses on the process of learning rather than the result. Learners are encouraged to reflect on their experiences and use them to develop new skills and knowledge. Experiential learning can take many forms, including internships, service learning, and field trips. One of the main benefits of experiential learning is that it allows learners to apply what they have learned in the classroom to real-world situations. This can help them develop a deeper understanding of the material and make connections between different concepts. Additionally, experiential learning can help learners develop important skills such as critical thinking, problem-solving and communication.
- **Problem-Based Learning:** Problem-based learning is an approach that involves learners in solving real-world problems. Learners are presented with

a problem or scenario and are asked to work together to find a solution. This approach encourages learners to take an active role in their learning and helps them develop important skills such as critical thinking and problem-solving. One of the main benefits of problem-based learning is that it encourages learners to take ownership of their learning. By working together to solve problems, learners can develop important skills such as collaboration and communication. Additionally, problem-based learning can help learners develop a deeper understanding of the material as they apply it to real-world situations.

- **Project-Based Learning:** Project-based learning is a hands-on approach to learning that involves learners in creating a project or product. This approach allows learners to take an active role in their learning and encourages them to develop important skills such as critical thinking, problem-solving, collaboration, and communication. One of the main benefits of project-based learning is that it allows learners to apply what they have learned in the classroom to real-world situations. Additionally, project-based learning can help learners develop important skills from each other and develop a deeper understanding of the material.
- **Talk for Learning Approaches:** Talk for learning approaches (TfL) are a range of techniques and strategies that are used to encourage learners to talk by involving them in discussions and debates about the material they are learning. This approach encourages learners to take an active role in their learning and helps them develop important skills such as critical thinking, collaboration and communication and also makes them develop confidence. One of the main benefits of TfL is that it encourages learners to think deeply about the material they are learning. By engaging in discussions and debates, learners can develop a deeper understanding of the material and make connections between different concepts.
- **Initiating Talk for Learning:** Initiating talk for learning requires the use of strategies that would encourage learners to talk in class. It helps learners to talk and participate meaningfully and actively in the teaching and learning process. Apart from developing skills such as communication and critical thinking, it also helps learners to develop confidence. Some strategies for initiating talk among learners are Activity Ball; Think-Pair-Share; Always, Sometimes, Never True; Matching and Ordering of Cards.
- **Building on What Others Say:** Building on what others say is an approach that involves learners in listening to and responding to their classmates'

ideas. This approach encourages learners to take an active role in their learning and helps them develop important skills such as critical thinking and communication. One of the main benefits of building on what others say is that it encourages learners to think deeply about the material they are learning. By listening to their classmates' ideas, learners can develop a deeper understanding of the material and make connections between different concepts. Additionally, building on what others say can help learners develop important skills such as collaboration and reflection. Some of the strategies to encourage learners to build on what others say are brainstorming, concept cartoons, pyramid discussion, and 5 Whys, amongst others.

- **Managing Talk for Learning:** Managing talk for learning requires the use of various strategies to effectively coordinate what learners say in class. Effective communication is a crucial aspect of learning in the classroom. Teachers must manage talk to ensure that learners are engaged, learning, and on-task in meaningful and purposeful ways. Some strategies for managing learners' contributions are debates, think-pair-share, sage in the circle etc.
- **Structuring Talk for Learning:** One effective way to shape learners' contributions is to structure classroom discussions. Structured discussions provide a framework for learners to engage in meaningful dialogue and develop critical thinking skills. Teachers can structure discussions by providing clear guidelines, such as speaking one at a time, listening actively, and building on each other's ideas. One popular structured discussion technique is the "think-pair-share" method. In this method, learners think about a question or prompt individually, and then pair up with a partner to discuss their ideas. Finally, the pairs share their ideas with the whole class. This method encourages all learners to participate and ensures that everyone has a chance to share their thoughts. Another effective way to structure talk for learning is to use open-ended questions. Open-ended questions encourage learners to think deeply and critically about a topic. They also promote discussion and collaboration among learners. Teachers can use open-ended questions to guide classroom discussions and encourage learners to share their ideas and perspectives. Other strategies that can be used are Concept/Mind Mapping, "Know," "Want to Know," "Learned" (KWL); Participatory Feedback; and the 5 Whys.
- **Diamond Nine:** The Diamond Nine activity is a useful tool for managing talk for learning in the classroom. This activity involves ranking items or ideas in order of importance or relevance. Learners work in groups to arrange cards

or sticky notes with different ideas or concepts into a diamond shape, with the most important idea at the top and the least important at the bottom. The Diamond Nine activity encourages learners to think critically about a topic and prioritise their ideas. It also promotes collaboration and discussion among group members. Teachers can use this activity to introduce a new topic, review material, or assess student understanding.

- **Group Work/Collaborative Learning:** Group work or collaborative learning are effective strategies for managing talk for learning in the classroom. These strategies encourage learners to work together to solve problems, share ideas, and learn from each other. Group work and collaborative learning also promote communication and collaborative skills that are essential for success in the workplace and in life. To implement group work effectively, teachers must provide clear guidelines and expectations for group members. They should also monitor group work to ensure that all learners are participating and on-task. Teachers can also use group work as an opportunity to assess individual student understanding and participation.
- **Inquiry-Based Learning:** Learners explore and discover new information by asking questions and investigating.
- **Problem-Based Learning:** Learners are given real-world problems to solve and must use critical thinking and problem-solving skills.
- **Project-Based Learning:** Learners work on long-term projects that relate to real-world scenarios.
- **Flipped Classroom:** Learners watch lectures or instructional videos at home and complete assignments and activities in class.
- **Mastery-Based Learning:** Learners learn at their own pace and only move on to new material once they have mastered the current material.
- **Gamification:** Learning is turned into a game-like experience with points, rewards, and competition.

These strategies provide learners with opportunities to engage with the material in meaningful ways and develop important skills such as critical thinking, problem-solving, collaboration, and communication. By incorporating these strategies into their teaching, teachers can help learners develop a deeper understanding of the material and prepare them for success in the real world. Effective communication is essential for learning in the classroom. Teachers must manage talk to ensure that learners are engaged in learning and on-task. Strategies such as structuring



talk for learning, using Diamond Nine activities, and implementing group work/ collaborative learning can help teachers manage talk effectively and promote student learning and engagement. By implementing these strategies, teachers can create a positive and productive learning environment where all learners can succeed.

### **Universal Design for Learning (UDL) in the SHS Curriculum**

The design of the curriculum uses UDL to ensure the creation of flexible learning environments that can accommodate a wide range of learner abilities, needs, and preferences. The curriculum is designed to provide multiple means of engagement, representation, and action and expression, so teachers can create a more inclusive and effective learning experience for all learners. UDL is beneficial for all learners, but it is particularly beneficial for learners needing special support and learners who may struggle with traditional teaching approaches. The integration of UDL in the pedagogy is aimed at making learning accessible to everyone and helping all learners reach their full potential. For instance, teachers need to:

- incorporate multiple means of representation into their pedagogy, such as using different types of media and materials to present information.
- provide learners with multiple means of action and expression, such as giving them options for how they can demonstrate their learning.
- consider incorporating multiple means of engagement into their choice of pedagogy, such as incorporating games or interactive activities to make learning more fun and engaging.

By doing these, teachers can help ensure that the curriculum is accessible and effective for all learners, regardless of their individual needs and abilities.

### **Curriculum and Assessment Design: Revised Bloom's Taxonomy and Webb's Depth of Knowledge**

The design of this curriculum uses the revised Bloom's Taxonomy and Webb's Depth of Knowledge (DoK) as frameworks to design what to teach and assess.

The Revised Bloom's Taxonomy provides a framework for designing effective learning experiences. Understanding the different levels of learning, informed the creation of activities and assessments that challenge learners at the appropriate level and help them progress to higher levels of thinking. Additionally, the framework emphasises the importance of higher-order thinking skills, such

as analysis, evaluation, and creation, which are essential for success in today's complex and rapidly changing world. This framework is a valuable tool for educators who want to design effective learning experiences that challenge students at the appropriate level and help them develop higher-order thinking skills. By understanding the six levels of learning and incorporating them into their teaching, educators can help prepare students for success in the 21st century. The six hierarchical levels of the revised Bloom's Taxonomy are:

1. **Remember** – At the foundation is learners' ability to remember. That is retrieving knowledge from long-term memory. This level requires learners to recall concepts—identify, recall, and retrieve information. Remembering is comprised of identifying, listing, and describing. Retrieving relevant knowledge from long-term memory includes, recognising, and recalling is critical for this level.
2. **Understand** – At understanding, learners are required to construct meaning that can be shown through clarification, paraphrasing, representing, comparing, contrasting and the ability to predict. This level requires interpretation, demonstration, and classification. Learners explain and interpret concepts at this level.
3. **Apply** – This level requires learners' ability to carry out procedures at the right time in a given situation. This level requires the application of knowledge to novel situations as well as executing, implementing, and solving problems. To apply, learners must solve multi-step problems.
4. **Analyse** – The ability to break things down into their parts and determine relationships between those parts and being able to tell the difference between what is relevant and irrelevant. At this level, information is deconstructed, and its relationships are understood. Comparing and contrasting information and organising it is key. Breaking material into its constituent parts and detecting how the parts relate to one another and an overall structure or purpose is required. The analysis also includes differentiating, organising and attributing.
5. **Evaluate** – The ability to make judgments based on criteria. To check whether there are fallacies and inconsistencies. This level involves information evaluation, critique, examination, and formulation of hypotheses.
6. **Create** – The ability to design a project or an experiment. To create, entails learners bringing something new. This level requires generating information—planning, designing, and constructing.

Webb's Depth of Knowledge (DoK) is a framework that helps educators and learners understand the level of cognitive engagement required for different types of learning tasks. The framework includes four levels. By understanding the four DoK levels, educators can design learning activities that challenge students to engage in deeper thinking and problem-solving. DoK is an essential tool for designing effective instruction and assessments. By understanding the different levels of DoK, teachers can design instruction and assessments that align with what they intend to achieve. DoK is a useful tool for differentiating instruction and providing appropriate challenges for all learners. Teachers can use DOK to identify students who need additional support or those who are ready for more advanced tasks. The four levels of Webb's' DoK assessment framework are:

- **Level 1: Recall and Reproduction** – Assessment at this level is on recall of facts, concepts, information, and procedures—this involves basic knowledge acquisition. Learners are asked specific questions to launch activities, exercises, and assessments. The assessment is focused on recollection and reproduction.
- **Level 2: Skills of Conceptual Understanding** – Assessment at this level goes beyond simple recall to include making connections between pieces of information. The learner's application of skills and concepts is assessed. The assessment task is focused more on the use of information to solve multi-step problems. A learner is required to make decisions about how to apply facts and details provided to them.
- **Level 3: Strategic Reasoning** – At this level, the learner's strategic thinking and reasoning which is abstract and complex is assessed. The assessment task requires learners to analyse and evaluate composite real-world problems with predictable outcomes. A learner must apply logic, employ problem-solving strategies, and use skills from multiple subject areas to generate solutions. Multitasking is expected of learners at this level.
- **Level 4: Extended Critical Thinking and Reasoning** – At this level of assessment, the learner's extended thinking to solve complex and authentic problems with unpredictable outcomes is the goal. The learner must be able to strategically analyse, investigate, and reflect while working to solve a problem, or changing their approach to accommodate new information. The assessment requires sophisticated and creative thinking. As part of this assessment, the learner must know how to evaluate their progress and determine whether they are on track to a feasible solution for themselves.

The main distinction between these two conceptual frameworks is what is measured. The revised Bloom's Taxonomy assesses the cognitive level that learners must demonstrate as evidence that a learning experience occurred. The DoK, on the other hand, is focused on the context—the scenario, setting, or situation—in which learners should express their learning. In this curriculum, the revised Bloom's taxonomy guided the design, and the DoK is used to guide the assessment of learning. The taxonomy provides the instructional framework, and the DoK analyses the assignment specifics. It is important to note that Bloom's Taxonomy requires learners to master the lower levels before progressing to the next. So, suppose the goal is to apply a mathematical formula. In that case, they must first be able to identify that formula and its primary purpose (remember and understand). The cognitive rigour is therefore presented in incremental steps to demonstrate the learning progression. When measuring assessments in DoK, learners move fluidly through all levels. In the same example, while solving a problem with a formula, learners recall the formula (DoK 1) to solve the problem (DoK 2 and DoK 3). Depending on the difficulty of the problem to be solved, the learner may progress to DoK 4.

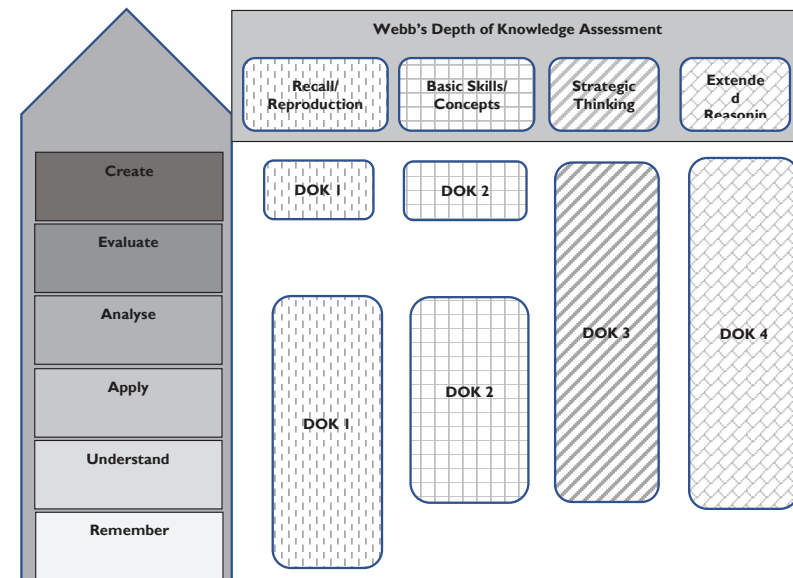


Figure 1: Revised Bloom Taxonomy combined with Webb's Depth of Knowledge for Teaching and Assessment

The structure of teaching and the assessment should align with the six levels of Bloom’s knowledge hierarchy and DoK shown in Figure 1. Each level of DoK

should be used to assess specific domains of Bloom’s Taxonomy as illustrated in the table below:

Depth of Knowledge (DoK) Assessment	Bloom’s Taxonomy applied to DoK
• Level 1: Recall and Reproduction	• Remembering, Understanding, Application, Analysis and Creation
• Level 2: Basic Skills and Concepts	• Understanding, Application, Analysis and Creation
• Level 3: Strategic Thinking	• Understanding, Application, Analysis, Evaluation and Creation
• Level 4: Extended Reasoning	• Understanding, Application, Analysis, Evaluation and Creation

In line with the National Pre-Tertiary Learning and Assessment Framework, the Secondary Education Assessment Guide (SEAG) requires that classroom assessments should cover **Assessment as learning (AaL), Assessment of learning (AoL) and Assessment for learning (AfL)**. Therefore, teachers should align the Revised Bloom’s Taxonomy with the DoK framework of assessment. Formative assessments should include classroom discussions, project-based assignments, and self-reflection exercises, while summative assessments should include standardised tests and rubric-based evaluations of learners’ work. It is important to seek feedback from learners themselves, as they may have unique insights into how well they are developing these skills in the classroom.

To assess 21<sup>st</sup> Century skills and competencies in the classroom, teachers will have to use a combination of both formative and summative assessments to evaluate learners’ acquisition of these skills and competencies. For instance:

- Identify the specific 21st Century skills and competencies to be assessed. For instance, you might want to assess *critical thinking, problem-solving, or creativity*.
- Align the skills and competencies with the DoK levels. For example, lower DoK levels might be more appropriate for assessing basic knowledge and

comprehension, whereas higher DoK levels might be more appropriate for assessing more complex skills such as *analysis, synthesis, and evaluation*.

- Develop assessment items that align with the DoK levels and the skills and competencies you want to assess. These items should be designed to elicit evidence of learning across the different levels of the DoK framework.
- Administer the assessment and collect data. Analyse the data to gain insights into student learning and identify areas where learners may need additional support or instruction.

The DoK framework is a powerful tool for assessing the acquisition of 21st Century skills and competencies in the classroom, helping teachers to better understand how learners are learning and identify areas for improvement.

Educational success is no longer about producing content knowledge, but rather about extrapolating from what we know and applying the knowledge creatively in new situations.

The overall assessment of learning at SHS should be aligned with the National Pre-Tertiary Learning and Assessment Framework and the Secondary Education Assessment Guide. Formative and summative assessment strategies must be used.

## Definition of Key Terms and Concepts in the Curriculum

- **Learning Outcomes:** It is a statement that defines the knowledge, skills, and abilities that learners should possess and be able to demonstrate after completing a learning experience. They are specific, measurable, attainable, and aligned with the content standards of the curriculum. It helps the teachers to determine what to teach, how to teach, and how to assess learning. Also, it communicates expectations to learners and helps them to better master the subject.
- **Learning Indicators:** They are measures that allow teachers to observe progress in the development of capacities and skills. They provide a simple and reliable means to evaluate the quality and efficacy of teaching practices, content delivery, and attainment of learning outcomes.
- **Content Standards:** It is a statement that defines the knowledge, skills, and understanding that learners are expected to learn in a particular subject area or grade level. They provide a clear target for learners and teachers and help focus resources on learner achievement.
- **Pedagogical Exemplars:** They are teaching examples used to convey values and standards to learners. Pedagogical Exemplars are usually demonstrated through teacher behaviour.
- **Assessment:** It is the systematic collection and analysis of data about learners' learning to improve the learning process or make a judgement on learner achievement levels. Assessment is aimed at developing a deep understanding of what learners know, understand, and can do with their knowledge because of their educational experiences. Assessment involves the use of empirical data on learners' learning to improve learning. Assessment is an essential aspect of the teaching and learning process in education, which enables teachers to assess the effectiveness of their teaching by linking learner performance to specific learning outcomes.
- **Teaching and Learning Resources:** Teaching and learning resources are essential tools for teachers to provide high-quality education to their learners. These resources can take various forms, including textbooks, audiovisual materials, online resources, and educational software. It is also important to avoid stereotypes and use inclusive language in teaching and learning resources. This means avoiding language that reinforces negative stereotypes and using language that is respectful and inclusive of all individuals regardless of their background. Using a consistent tone, style, and design is very important.

# PHILOSOPHY, VISION AND GOAL OF GEOGRAPHY

## Philosophy

All learners can be supported to develop their full potential in the geographical skills of space-time and human-environment interrelationships, build on contemporary and emerging technologies and competencies for further studies, the world of work and adult life.

## Vision

Learners equipped with 21st Century skills and competencies in critical thinking and spatial analysis of the earth's physical and human patterns and processes to be interdisciplinary innovators, advance new world-changing discoveries in geospatial science and the interrelationship between the natural and the built-environment.

## Goal

To equip the SHS Geography learners with relevant knowledge, skills and competencies that will enable them to make sense of spatial phenomena and processes in their localities and the wider world as well as exhibit 21st Century skills and GESI in their social interactions. The subject aims to equip learners with the knowledge, skills and competencies that will enable them to become informed, communicative and responsible global citizens and solve societal problems.

## Contextual Issues

The existing Senior High School (SHS) Geography curriculum was published in September 2010, more than a decade ago. A lot has changed since then. New technologies and educational tools have emerged, and learners have become more enthusiastic about the new developments needing a change of educational focus from what it was over a decade ago. Moreover, the 2010 curriculum has content overlaps with other subjects. Also, the teaching of Geography in SHS in the 2010 curriculum barely emphasised the acquisition of 21st-century skills and competencies. Also, the curriculum was not GESI-responsive, thus failing to create a supportive and enabling learning environment for disadvantaged learners to realise their full learning potential. The geographical knowledge and skills for solving human-environment challenges have not been emphasised. The pedagogies used is largely teacher centred. The instructional design barely went beyond

'remembering' – emphasising only 'recognise and recall'. As such, knowledge and understanding formed 40% of the assessment, application of knowledge (40%) and attitudes, values and process skills formed 20%. These challenges are further worsened by inadequate tools and equipment to support the effective teaching and learning of the subject.

## Rationale

Geography studies the Earth's landscapes, processes and the interrelationships between humans and their environments. Issues of the environment are becoming increasingly important and the study of Geography, provides solutions to problems in their spatial context. Specifically, Geography serves as a medium for attaining national educational goals through the following ways:

- Providing learners with the opportunity to apply the geographical skills of space-time and human-environment interrelationships to read, interpret and analyse their environment, giving them the ability to make valuable contributions to the socio-economic development of their localities and the world at large.
- Providing an opportunity for learners to appreciate the processes that shape the landscape and the world, and viewing human-environment issues as responsible local and global citizens ('Glocal citizens').
- Exploring past, current and possible future events and phenomena on the Earth's surface, thereby placing learners to be part of a generation that can deal effectively with and mitigate global challenges while maximising related opportunities.
- Providing learners with the opportunity to be systematic inquirers by stimulating critical thinking involving asking questions about spatial phenomena, gathering, evaluating and interpreting geospatial data and communicating information to help guide decision-making.
- Developing learners' critical thinking, problem-solving and graphical skills for development at the personal, local and global levels to enable them to make a living in future. Thus, learners after going through the curriculum at the Senior High School level may find employment in the public and private sectors of the national economy, in areas such as cartography, regional and urban planning,

land use and spatial planning, surveying, environmental protection agency (EPA), teaching, etc

- Enhancing digital and information literacy for effective organisation and utilisation of space thereby exposing learners to the policies and principles underlying land use practices, and resource exploitation and utilisation for socio-economic development.

The SHS Geography curriculum provides learners with the opportunity to increase their understanding and application of knowledge and skills for solving human-environment challenges of the 21st century. It is designed to meet the current and future needs of learners with different learning abilities. It also incorporates the current and emerging technologies and applications for space-time analysis, the world of work and adult life.

The curriculum has addressed the issues of subject overlaps by aligning the content with related subject groups such as Social Studies, Agriculture and Economics. It has also been streamlined to eliminate obvious repetitions. The content of this Geography curriculum focuses on the thematic physical and human areas of local, national and global concerns. It also employs multiple techniques of teaching and learning to meet the needs of all learners and ensure a deeper understanding. This includes teacher-learner interactions, presentations, field trips, discussions, computer laboratory sessions and videos, with a special focus on local examples, thus equipping the learner with geographical skills for further studies, addressing local and national developmental issues, the world of work and adult life.

This curriculum shifts from an objective-based assessment to a standard-based assessment that emphasises learners demonstrating 21st-century skills and competencies. Learners will do a lot of reasoning instead of recalling. With the advent of new and emerging technologies, this curriculum incorporates and encourages learners to make use of the free geographic information system (GIS) and computer/mobile-based applications for spatial analysis. GESI issues are deliberately integrated to remove biases and create supportively and enabling learning environments that allow disadvantaged learners to achieve their full learning potential. It emphasises the use of gender-sensitive language and differentiated teaching and assessment to remove gender discrimination in teaching and learning. Also, it identifies and addresses the potential barriers to learning of various groups. Generally, the curriculum addresses the environmental and human challenges of geographical perspectives facing our communities and the Nation that need attention to promote sustainable development. It is also engraved with a philosophy, vision and goal to guide the teaching and learning of Geography.



## GEOGRAPHY CURRICULUM DEVELOPMENT PANEL

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2.	Dr. Jane Cullen	5. Dr. Christopher Yaw Kwaah
3.	Dr. Sean Higgins	

## SCOPE AND SEQUENCE

### Geography Summary

S/N	STRAND	SUB-STRAND	YEAR 1			YEAR 2			YEAR 3		
			CS	LO	LI	CS	LO	LI	CS	LO	LI
1	The Earth and its Neighbourhoods	The Earth and its features	4	4	8	2	2	4	1	1	2
		Rocks, weathering, soils and mass wasting	1	1	3	1	1	2	1	1	3
		The earth's atmosphere	1	1	3	1	1	3	1	2	3
2	Navigating the Environment	Maps: Their elements and analysis	2	2	4	1	2	4	1	1	3
		Geospatial data collection, representation and interpretation	1	1	2	1	1	3	1	1	2
3	Human and Environment	Physical settings and people	1	1	3	1	1	2	2	2	5
		Economic activities	1	1	2	1	1	2	1	1	3
		Environmental degradation	1	1	2	1	1	2	1	1	3
		Environmental hazards and their management	1	1	2	1	1	2	1	1	2
<b>Total</b>			<b>13</b>	<b>13</b>	<b>29</b>	<b>10</b>	<b>10</b>	<b>24</b>	<b>10</b>	<b>10</b>	<b>26</b>

### Overall Totals (SHS 1 – 3)

Content Standards	33
Learning Outcomes	33
Learning Indicators	79



# YEAR ONE

**Subject**      **GEOGRAPHY**  
**Strand**        **I. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**    **I. THE EARTH AND ITS FEATURES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI <sup>1</sup> , SEL <sup>2</sup> and Shared National Values
<p>I.I.I.LO.I</p> <p>With your understanding of the environmental features, explain the meaning of <b>GEOGRAPHY</b> and identify its branches and career prospects</p>	<p><b>Collaboration and self-confidence:</b></p> <ul style="list-style-type: none"> <li>• Learners work in mixed ability groups, Share ideas and build their confidence level during brainstorming.</li> <li>• Learners learn to unlearn and re-learn and build their self-confidence from the think-pair-share and discussion.</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Be aware of individuals of different geographical areas.</li> <li>• Embrace diversity and practice inclusion of people from different socio-economic backgrounds.</li> <li>• Interrogate their stereotypes and biases about productive and reproductive gender roles in home management.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they</p>

<sup>1</sup> Gender Equality and Social Inclusion

<sup>2</sup> Socio-Emotional Learning

		<p>work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• SMART goal setting</li> <li>• Self-reflecting</li> <li>• Finding confidence</li> <li>• Self-awareness</li> <li>• Exhibiting motivation</li> <li>• SMART goal setting</li> </ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, respect for the environment, Risk prevention and environmental care.</p>
<p>I.1.1.LO.2</p> <p>Explain the constituents and characteristics of the Solar System</p>	<p><b>Creative skills:</b> By building the model of the solar system</p> <p><b>Collaborative skills and information literacy:</b> Develop analytical and collaborative skills and information literacy through watching videos on the solar system and having group discussions afterwards.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Sensitive to diversity and inclusion of learners from different geographical areas.</li> <li>• Interrogate their stereotypes and biases about gender and the role men and women play in environmental management.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the</p>

		<p>inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Finding confidence</li> <li>• Self-awareness</li> <li>• Exhibiting motivation</li> <li>• SMART goal setting</li> </ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, respect for the environment.</p>
<p>I.1.1.LO.3</p> <p>Describe the shape of the Earth and the effects of its rotation and revolution on our daily lives</p>	<p><b>ICT and creativity:</b> Creative and innovative skills and ICT are developed in model building and the use of computers and smart phones</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Embrace diversity and practice inclusion of learners with mixed abilities.</li> <li>• Sensitive to the inter-relatedness of cultures of learners from different geographical areas.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning</p>

		<p>Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Showing empathy and cooperation</li> <li>• Finding confidence</li> <li>• Self-awareness</li> </ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, time consciousness</p>
<p>I.I.I.LO.4 Explain latitudes and longitudes and outline their significance to our everyday life</p>	<p><b>Critical thinking and problem-solving skills:</b> By discussing and calculating distances and time.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Be aware of individuals of different backgrounds.</li> <li>• Sensitive to diversity and inclusion of learners with different intellectual abilities.</li> <li>• Interrogate their stereotypes and biases about gender and the role men and women play in societal management.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the</p>

		<p>inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Showing empathy and cooperation</li> <li>• SMART goal setting</li> <li>• Self-reflecting</li> <li>• finding confidence</li> <li>• Exhibiting motivation</li> </ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
I.1.1.CS.1	I.1.1.LI.1	I.1.1.AS.1
Demonstrate understanding of Geography as a subject of study	<p><b>Explain Geography and its branches</b></p> <p><b>Talk for Learning:</b> Through questioning explore what learners Know, Want to know and Learn (KWL) about geography. In pairs learners think and share the meaning of geography and some elements that constitutes geography ensuring GESI-responsiveness, taking note of the emotions of others and tolerating the views of others.</p> <p>Through questions and answers learners identify, collect and classify environmental features into the various branches of geography. Use tables or concepts maps to organise learners' contribution.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	<p>I.1.1.LI.2</p> <p><b>Discuss career prospects and the importance of studying geography</b></p> <p><b>Talk for Learning:</b> Through think-pair-share, discuss the importance of studying geography to our daily lives, taking into consideration the emotions of others, being open-minded and valuing the thoughts of others.</p> <p><b>Exploratory Learning:</b> Using videos/field excursions to institutions of geography (e.g. Land Use and Spatial Planning Authority, Lands Commission etc), resource persons or other resources, discuss the career and/or importance of geography.</p>	<p>I.1.1.AS.2</p> <p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p>Level 4 Extended critical thinking and reasoning</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Use pictures and videos of the globe, atlas and Google Earth App.</li> <li>• Real objects such as rocks and plants</li> </ul>	<ul style="list-style-type: none"> <li>• Use pictures and videos of careers in <b>GEOGRAPHY</b>.</li> <li>• Resource persons and institutions such as Land Use and Spatial Planning Authority, Lands Commission etc.</li> </ul>

Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment	
I.1.1.CS.2	I.1.1.LI.1	I.1.1.AS.1	
Demonstrate knowledge of the Solar System and its constituents	<p><b>Describe the solar system and its constituents</b></p> <p><b>Activity-Based Learning:</b> Using pictures/videos and other resources, build a model of the solar system to illustrate the components and characteristics of the solar system.</p> <p><b>Group work/collaborative learning:</b> Discuss in pairs/manageable groups the interrelationships between the planetary bodies using the model of the solar system ensuring all-inclusiveness. I.e. gender, emotions and respect for each other.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>	
	I.1.1.LI.2	I.1.1.AS.2	
	<p><b>Discuss the characteristics of the planets in the solar system</b></p> <p><b>Group work/collaborative learning:</b></p> <ul style="list-style-type: none"> <li>In mixed ability and gender grouping, identify and discuss the position of the planets in relation to the sun using a model of the solar system. Learners should control their emotions during discussions to accept the views of others and share with whole class.</li> <li>In manageable groups, analyse the features of the eight planets, their differences and similarities iteratively while ensuring all-inclusiveness emphasising on gender differences.</li> </ul>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>	
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>Use mobile phones</li> <li>Computers</li> <li>Pictures</li> </ul>	<ul style="list-style-type: none"> <li>Globe</li> <li>Videos and images to illustrate the solar system.</li> </ul>	<ul style="list-style-type: none"> <li>Models and images of the solar system</li> <li>Other resources (clay, paper, cardboard etc) for modelling the solar system</li> </ul>



Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
I.1.1.CS.3	I.1.1.LI.1	I.1.1.AS.1
Demonstrate knowledge and skills in describing the shape and movements of The Earth, and the effects of the earth's rotation and revolution	<p><b>Discuss evidence of the shape of earth</b></p> <p><b>Talk for learning:</b></p> <ul style="list-style-type: none"> <li>Using questions and answers, discuss the shape of the Earth ensuring all-inclusiveness with emphasis on people from different geographical areas.</li> <li>Using questions and answers and built models, discuss the proofs of the shape of the earth involving all participants. Learners should be self-reflecting and finding confidence in sharing their views.</li> </ul>	Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
	<p>I.1.1.LI.2</p> <p><b>Examine the effects of the Earth's rotation and revolution</b></p> <p><b>Exploratory Learning:</b> Prior to the lesson, research on the rotation and revolution of the earth from various sources such as books, the internet, library etc.</p> <p><b>Group work/collaborative learning:</b> In mixed ability and GESI responsive groups, discuss the effects of the earth's rotation and revolution with the aid of pictures, globe, model etc, of the solar system. Learners should be firm and fair to resist inappropriate views that might override group discussions.</p> <p><b>Activity-Based Learning:</b> Role play the revolution and rotation of the earth.</p>	I.1.1.AS.2 Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>Pictures/diagrams of the planetary system</li> <li>Physical model of the planetary system (globe, from the computer or built one)</li> </ul>	

<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>		<b>Assessment</b>
I.1.1.CS.4	I.1.1.LL.1		I.1.1.AS.1
Demonstrate skills in locating places using longitudes and latitudes	<b>Use latitudes and longitudes to locate places on the earth's surface</b>  <b>Exploratory Learning:</b> <ul style="list-style-type: none"> <li>Using a globe, atlas or other resources, brainstorm the definition and characteristics of latitudes and longitudes in an all-inclusive interaction including gender differences. Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</li> <li>With the aid of a globe, atlas, Google Earth or other resources, discuss the differences between latitudes and longitudes ensuring all learners are involved.</li> </ul>		Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning Level 4 Extended critical thinking and reasoning
	I.1.1.LL.2	<b>Calculate distances using latitudes and time using longitudes</b>  <b>Project-based learning:</b> Using maps or other resources, and in manageable mixed ability groups, calculate distances using latitudes and time using longitudes. Learners should be firm and fair to resist inappropriate views that might override group's interest.	I.1.1.AS.2  Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning Level 4 Extended critical thinking and reasoning
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>Globe</li> <li>Atlas</li> <li>Maps</li> </ul>	<ul style="list-style-type: none"> <li>Google Earth</li> <li>Bing or other free 3D-capable satellite images to facilitate your discussions on the definition and characteristics of latitudes and longitudes</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **1. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**   **2. ROCKS, WEATHERING, SOIL AND MASS WASTING**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.1.2.LO.1</p> <p>Identify the three types of rocks and explain weathering processes</p>	<p><b>Critical thinking and problem-solving skills:</b> Through classifying and differentiating between the rock types in a field tour.</p> <p><b>Self-confidence and Writing skills:</b> Learners develop their self-confidence and writing skills through answering of questions and writing field reports and presentation.</p> <p><b>Observation and critical analysis skills:</b> The fieldwork promotes critical observation of events and activities.</p> <p><b>Leadership skills/teamwork:</b> Through the selection of leaders leading field tour groups, writing field reports and making presentations.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Awareness of the views of individuals of different geographical areas.</li> <li>• Embrace diversity and practice inclusion of learners from different geographical areas.</li> <li>• Examine and dispel misconceptions/myths about gender as they relate human and environmental development.</li> <li>• Identify injustice, especially in recognition of the contributions of different geographical groups and individuals to the effective class management.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship</i></p>

		<p><i>Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, care for the environment.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
I.1.2.CS.1	I.1.2.LI.1	I.1.2.AS.1
Demonstrate knowledge in rocks formation and weathering processes	<p><b>Discuss the three types of rock, their characteristics, formational processes and their importance</b></p> <p><b>Collaborative learning:</b> Working in small groups based on people living in different relief areas, brainstorm on the different rock types and their formation.</p> <p><b>Project-based learning:</b> In a field tour within the community, identify and discuss the importance of rocks to your community/national development. Learners should cooperate with each other during the field tour.</p>	Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
	<p>I.1.2.LI.2</p> <p><b>Explain weathering and the factors affecting its processes</b></p> <p><b>Activity Based Learning:</b> Create a mind-map on weathering, covering its definition, causes, effects and factors affecting it. Learners should be self-reflecting and be confident.</p>	I.1.2.AS.2 Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
	<p>I.1.2.LI.3</p> <p><b>Evaluate the three weathering processes (physical, chemical and biological weathering processes)</b></p> <p><b>Talk for learning:</b> Using questions and answers, discuss the types of weathering processes, ensuring all participants are involved.</p> <p><b>Experiential Learning:</b> In mixed ability groups embark on a field tour around the school compound or neighbourhood to observe the types of weathering and weathering processes in the environment and make presentation and/or a written field report. Learners should create an environment in which others believe that their thoughts and opinions are valued.</p>	I.1.2.AS.3 Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Rock samples in the locality</li> <li>• Pictures and/or videos on rock types</li> </ul>	<ul style="list-style-type: none"> <li>• Pictures and/or videos and other sources to show rock uses</li> </ul>

**Subject**      **GEOGRAPHY**  
**Strand**        **1. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**    **3. THE EARTH ATMOSPHERE**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.1.3.LO.1</p> <p>Analyse the physical structure and composition of the Earth's atmosphere and explain the term weather and climate</p>	<p><b>Observation and critical analysis, communication skills:</b></p> <ul style="list-style-type: none"> <li>• The observation of the weather station and analysis of the repository data will promote critical observational, analytical skills, the understanding and ability to apply concepts to real-life situations.</li> <li>• The discussions based on a talk for learning and structuring talk for learning will also promote good communication skills.</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Awareness of views of individuals of different geographical and intellectual ability backgrounds.</li> <li>• Embrace diversity and practice inclusion of people from different geographical areas.</li> <li>• Identify injustice, especially in recognition of the contributions of learners with different temperaments.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals</p>

		<p>will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• SMART goal setting</li><li>• Self-reflecting</li><li>• Self-awareness</li><li>• Exhibiting motivation</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, protection of water bodies and vegetation.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
I.1.3.CS.1	I.1.3.LI.1	I.1.3.AS.1
Demonstrate knowledge of the structure and composition of the Earth's atmosphere and explain the terms weather and climate	<p><b>Discuss the physical structure and composition of the Earth's atmosphere and their importance</b></p> <p><b>Digital Learning:</b> Watch videos, pictures or PowerPoint slides on the components of the earth's atmosphere.</p> <p><b>Collaborative Learning:</b> Initiate discussion to identify and explain the main components of the atmosphere (troposphere, stratosphere, mesosphere, thermosphere and exosphere), and explain the gases and their importance in the atmosphere ensuring all-inclusiveness and being mindful of reserved learners. Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	I.1.3.LI.2	I.1.3.AS.2
	<p><b>Explain the differences between the weather and climate and the factors that affect them</b></p> <p><b>Talk for Learning:</b> Initiate discussion and help shape learners to understand the differences between weather and climate and the factors influencing them. Learners during discussions should provide opportunities for others to practice identifying potential situations or experiences that lead to feeling overwhelmed and struggling to manage emotions.</p> <p><b>Activity-Based Learning:</b> Design word clouds based on the explanation, similarities and differences between weather and climate.</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
I.1.3.LI.3		
	<p><b>Calculate the annual and mean rainfall and temperature data of a station with appropriate instruments for measuring the various elements of weather</b></p> <p><b>Project-based Learning:</b> Using a 30-year weather data from a station (e.g TAHMO, GMet etc) or repository, learners calculate annual and mean rainfall and temperature data to differentiate between the terms weather and climate. Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p>Level 4 Extended critical thinking and reasoning</p>



<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"><li>• Video, pictures and diagrams of instruments for measuring the elements of weather and climate</li><li>• Weather station (e.g. GMet and TAHMO) or repository of elements of weather and climate data</li></ul>
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**Subject**      **GEOGRAPHY**  
**Strand**        **2. NAVIGATING OUR ENVIRONMENT**  
**Sub-Strand**   **1. MAPS, THEIR ELEMENTS AND ANALYSES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.2.1.LO.1</p> <p>Base on your knowledge on maps, examine the different types of maps, their importance and map scales</p>	<p><b>Graphical and collaborative skills:</b></p> <ul style="list-style-type: none"> <li>• Collaborative and graphical skills are developed through think-pair-share discussions and the art of graphical construction of scales and representation of relief features on maps.</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Sensitive to individuals with different statistical capabilities.</li> <li>• Embrace diversity and practice inclusion of mixed ability groups.</li> <li>• Interrogate their stereotypes and biases about gender and capabilities of both men and women in statistics.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Showing empathy and cooperation</li> </ul>

		<ul style="list-style-type: none"> <li>• SMART goal setting</li> <li>• Self-reflecting</li> <li>• finding confidence</li> <li>• Self-awareness</li> <li>• Exhibiting motivation</li> </ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, critical thinking.</p>
I.2.1.LO.2		
Evaluate the various methods of representing relief features on maps	<p><b>Graphical and collaborative skills:</b> Collaborative and graphical skills are developed through think-pair-share discussions and the art of graphical construction of scales and representation of relief features on maps.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Tolerate the views of learners of different geographical areas.</li> <li>• Awareness of attitudes of different gender groups to the study of maps</li> <li>• Examine and dispel misconceptions/ myths about male dominance in map interpretations.</li> <li>• Value and promote justice in class, home and in society.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they</p>

		<p>work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• Self-reflecting</li><li>• finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, environmental consciousness.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI		Assessment
1.2.1.CS.1	1.2.1.LI.1		1.2.1.AS.1
Demonstrate understanding of maps, their importance and the map scales	<p><b>Discuss the types of maps and their importance</b></p> <p><b>Talk for learning:</b> Brainstorm on the definition of maps, elements, types and importance of maps. Ensure no biases during the brainstorming and consider the diverse views from learners. Learners should embrace the differences in the responses.</p> <p><b>Activity-Based learning:</b></p> <ul style="list-style-type: none"> <li>• Study different types of maps and discuss their features and importance.</li> <li>• Individually write short notes on maps, their characteristics and uses.</li> </ul>		Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning
	<p>1.2.1.LI.2</p> <p><b>Explain the concept of map scale and convert from one scale type to another</b></p> <p><b>Collaborative learning:</b></p> <ul style="list-style-type: none"> <li>• In groups, think-ink-share the definitions of a map scale, types and their advantages and disadvantages.</li> <li>• Learners should be conscious of resolving interpersonal conflicts with each other if they arise in group discussions.</li> </ul> <p><b>Activity-based learning:</b> Practice the conversion of one scale to another (e.g. from statement scale to R.F and linear scale and vice versa) and to construct the linear scale.</p>		1.2.1.AS.2 Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Topographical maps</li> <li>• Atlas</li> </ul>		<ul style="list-style-type: none"> <li>• Google earth</li> <li>• Mathematical instruments</li> </ul>

<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
I.2.1.CS.2	I.2.1.LI.1	I.2.1.AS.1
Demonstrate knowledge and skills of representing relief features on maps	<p><b>Examine the methods of representing relief on maps</b></p> <p><b>Collaborative learning:</b> In small mixed-gender groups, discuss the various methods used to show relief features on a map. During the discussions, learners should listen to their peers' opinions and express disagreements in constructive ways.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
	<p>I.2.1.LI.2</p> <p><b>Read and interpret contours on maps</b></p> <p><b>Activity-based learning:</b> In small mixed-ability groups of learners from different relief areas, represent or draw the various relief features on a map using given relief data, with emphasis on using contours to represent the nature or types of slopes considering the diverse physiographic settings of the members. In the group, all learners should be aware of the emotions of all members, especially the vulnerable ones.</p>	<p>I.2.1.AS.2</p> <p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>Use topographical maps, atlas and Google Earth and mathematical instruments to learn the types and construction of scales.</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **2. NAVIGATING OUR ENVIRONMENT**  
**Sub-Strand**    **2. GEOSPATIAL DATA COLLECTION, REPRESENTATION AND INTERPRETATION**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.2.2.LO.1</p> <p>Collect geospatial data using both traditional methods e.g. chain and compass surveying and modern methods e.g. remote sensing, Global Positioning System (GPS) and mobile Apps</p>	<p><b>ICT, Information literacy, life-long learning and communication skills:</b></p> <ul style="list-style-type: none"> <li>• Through the use of mobile and computer apps to collect spatial data in the field or compound learners develop ICT and information literacy and prepare them for adult life. Communication skills through the talk for learning and building on what others say.</li> <li>• Through the use of mobile and computer apps to collect spatial data in the field.</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect gender differentials in understanding of concepts in surveying.</li> <li>• Interrogate their stereotypes and biases about gender differentiations in surveying.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Showing empathy and cooperation</li> <li>• SMART goal setting</li> <li>• Self-reflecting</li> </ul>

		<ul style="list-style-type: none"><li>• finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, being curious and critical of things we see and hear and being optimistic on our expectations.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI		Assessment
I.2.2.CS.1	I.2.2.LI.1		I.2.2.AS.1
Demonstrate knowledge and skills in basic geospatial data collection methods	<p><b>Discuss the methods of collecting geospatial data (surveying, remote sensing, GPS etc.)</b></p> <p><b>Talk for learning:</b></p> <ul style="list-style-type: none"> <li>• Through questioning, brainstorm on the definition of spatial data, and the spatial data learners can acquire in the classroom, school compound or field. Learners should consider the emotions of individuals who struggle to express themselves</li> <li>• Use pyramid discussion to initiate discussion on               <ul style="list-style-type: none"> <li>(i) The modern spatial data collection methods/tools</li> <li>(ii) How they are used?</li> <li>(iii) What data these methods/tools can collect</li> </ul> </li> </ul> <p>Ensure that reserved learners contribute during the brainstorming and discussion</p> <p><b>Activity-based learning:</b> Group learners to use mobile and computer Apps to collect spatial data on the field, and discuss their findings in class.</p> <p><b>Talk for learning:</b> Learners watch videos on how satellites (e.g. Landsat) revolve around the earth and collect repetitive spatial data around the world and discuss that in class.</p>		Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
	I.2.2.LI.2		I.2.2.AS.2
	<p><b>Assess the geospatial data collection tools</b></p> <p><b>Collaborative learning:</b> Discuss the advantages and disadvantages of the various spatial data collection methods/tools.            Ensure that reserved learners contribute during discussion. The emotions of approaching proficiency learners should not be override when they don't contribute to discussion as expected.</p>		Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Mobile phone</li> <li>• Computer Apps</li> <li>• Google Earth App</li> </ul>	<ul style="list-style-type: none"> <li>• GPS</li> <li>• Video on how satellites revolve around the earth</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**    **1. PHYSICAL SETTINGS AND PEOPLE**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.3.1.LO.1</p> <p>Examine the physical environment of Ghana (relief, drainage, climate, vegetation and soils) and their socio-economic importance</p>	<p><b>Collaboration and communicative skills:</b> Exhibit communication and collaborative skills through brainstorming and group discussion.</p> <p><b>Creativity and innovation skills:</b> Developed through drawing administrative map of Ghana, inserting administrative regions and towns.</p> <p><b>Communication and collaborative skills:</b> Communication and collaborative skills are developed through group discussion on the socio-economic importance of relief and drainage and their challenges.</p> <p><b>Teamwork:</b> Through discussions in groups of different backgrounds</p> <p><b>Graphical skills:</b> Graphical skills are developed as learners draw climate, vegetation and soil maps of Ghana.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different geographical areas.</li> <li>• Examine and dispel misconceptions/ myths about male domination in map sketching.</li> <li>• Interrogate their stereotypes and biases about gender and the role men and women play in home and environment management.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p>

		<ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, consciousness of the need to safeguard the natural environment.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
<p>I.3.1.CS.1</p> <p>Demonstrate understanding of the physical environment of Ghana and its socio-economic importance and challenges</p>	<p>I.3.3.1.LI.1</p> <p><b>Draw the outline map of Ghana and describe the location and size, and indicate the administrative regions</b></p> <p><b>Collaborative Learning:</b> In mixed ability and mixed gender groups, discuss the size of Ghana using an atlas map. Learners should create an environment where others believe their thoughts and opinion are valued.</p> <p><b>Initiate talk for learning:</b> Brainstorm on the definition of absolute and relative locations. Let learners share their thoughts.</p> <p><b>Collaborative learning:</b> In mixed groups of different abilities and based on dominant economic activity areas learners</p> <ul style="list-style-type: none"> <li>(i) Use administrative maps of Ghana to identify and locate the administrative regions and towns.</li> <li>(ii) Draw the outline map of Ghana and insert the administrative regions and towns.</li> </ul>	<p>I.3.1.AS.1</p> <p>Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b></p>
	<p>I.3.3.1.LI.2</p> <p><b>Discuss the major relief and drainage features of Ghana and their importance and challenges to development</b></p> <p><b>Talk for learning:</b></p> <ul style="list-style-type: none"> <li>• Use a map to identify and describe the relief regions of Ghana in small manageable all-inclusive groupings, emphasising on learners from different regions of Ghana.</li> <li>• Discuss the importance and challenges of relief to socio-economic development through think-pair-share.</li> </ul> <p>Learners should create an environment in which others believe that their thoughts and opinions are valued.</p> <p><b>Activity-Based Learning:</b> Use maps to identify and discuss the drainage features of Ghana through a pair activity.</p> <p><b>Collaborative Learning:</b> In mixed-ability, and mixed gender groups and a focus on learners living closer to different drainage systems discuss the importance and challenges of drainage features to</p>	<p>I.3.1.AS.2</p> <p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning</p>

	<p>socio-economic development.</p> <p><b>Project-based learning:</b> Using different task-based or small mixed ability groups, draw an outline map of Ghana showing the relief and drainage features.</p>		
	1.3.3.1.LI.3		1.3.1.AS.3
	<p><b>Discuss the climate, vegetation and soil types in Ghana and their importance and challenges to socio-economic development</b></p> <p><b>Collaborative learning:</b> In small all-inclusive groupings, with emphasis on learners from different vegetation zones, use maps to</p> <p>(i) Identify the climatic, vegetation zones and soil types.</p> <p>(ii) Describe the factors that affect climate and vegetation zones and the soil types of Ghana.</p> <p>Learners should create an environment in which others believe that their thoughts and opinions are valued.</p> <p><b>Activity-based learning:</b> In mixed-groups of different climatic regions</p> <p>(i) Draw the climate, vegetation and soil maps of Ghana</p> <p>(ii) Discuss the characteristics of the climatic zones and their associated vegetation and soils including their economic importance</p>		<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Atlas</li> <li>• Administrative map of Ghana to determine the size, describe the position and identify administrative regions.</li> <li>• Relief maps of Ghana</li> </ul>	<ul style="list-style-type: none"> <li>• Drainage map of Ghana</li> <li>• Use climate, vegetation, soil maps of Ghana and soil samples to identify climate, vegetation and soil types.</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**    **2. ECONOMIC ACTIVITIES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.3.2.LO.1</p> <p>Examine the methods, importance and problems of agriculture, lumbering and mining in Ghana</p>	<p><b>Communication and collaboration skills:</b> Through leading discussions, think-pair-sharing and accepting constructive feedback.</p> <p><b>Information literacy:</b> By viewing and watching pictures/videos of agricultural production systems and types.</p> <p><b>Digital literacy:</b> By viewing pictures and watching videos of mining activities.</p> <p><b>Collaborative and communication skills:</b> Through group discussions and individual contributions promote tolerance of opinions, oral communication and self-confidence.</p> <p><b>Collaborative learning:</b> In mixed groups from mining and non-mining communities, discuss;</p> <ul style="list-style-type: none"> <li>i) definition of mining, minerals mined and methods of mining in Ghana</li> <li>ii) importance, challenges facing the mining sector and their solutions in Ghana</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Encourage mutual co-existence of animal herders and farmers .</li> <li>• Embrace diversity and practice inclusion of learners from different geo-spatial and economic areas.</li> <li>• Examine and dispel misconceptions/ myths about the contribution of men and women to agricultural.</li> <li>• Identify injustice, especially in recognition of the contributions of different socio-economic groups.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and</p>

		<p>understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Self-reflecting</li><li>• Finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, being curious and critical of things we see and hear and be optimistic on our expectations.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
I.3.2.CS.1	I.3.2.LI.1	I.3.2.AS.1
Demonstrate an understanding of the various primary economic activities in Ghana and beyond	<p><b>Discuss the characteristics of subsistence and commercial agriculture and their importance and challenges in Ghana</b></p> <p><b>Collaborative learning:</b></p> <ul style="list-style-type: none"> <li>• In mixed groups from different localities, think-pair-share on the meaning of economic activities with emphasis on the primary economic activities and identify some of these activities in their various localities.</li> <li>• Brainstorm learners on the definition of agriculture and the types of agriculture production systems (crops and livestock farming).</li> <li>• Learners should help to expand others' emotional vocabulary and their abilities to identify physical sensations related to particular feelings.</li> </ul> <p><b>Exploratory Learning:</b> Visit local farms that practice subsistence and commercial farming, and discuss the characteristics, importance, problems and remedies of the various forms of agriculture (subsistence and commercial) in Ghana.</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	I.3.2.LI.2	<p><b>Examine the methods, importance and problems of lumbering and mining in Ghana</b></p> <p><b>Talk for Learning:</b> Watch a video presentation or listen to a resource person give a presentation on:</p> <ol style="list-style-type: none"> <li>(i) Definition of lumbering, identify timber species using question and answer technique</li> <li>(ii) Factors influencing lumbering and methods of extraction</li> <li>(iii) Importance and challenges facing lumbering and mining activities and their solutions in Ghana</li> </ol> <p>Learners should accurately assess their own capabilities as they watch videos or listen to the resource person.</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Use pictures/videos and other sources of primary economic activities to explain the meaning of economic activities.</li> <li>• Pictures/videos and other sources to show lumbering and mining activities and methods of extraction in Ghana.</li> <li>• Pictures/videos and other sources to show problems of lumbering and mining activities in Ghana.</li> <li>• Visit available local sites (farms, gardens, etc) to discuss the characteristics of subsistence and commercial farming.</li> </ul>	



**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**    **3. ENVIRONMENTAL DEGRADATION**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.3.3.LO.1</p> <p>Evaluate the causes, effects and measures of preventing or mitigating water and air pollutions</p>	<p><b>Systems-thinking competency:</b> Are developed by examining interrelationships between the causes, and effects and proposing remedies for air pollution and for water pollution in Ghana.</p> <p><b>Critical thinking and problem-solving skills:</b> Initiating talk for learning promotes initiatives and imagination toward problem-solving and prepare them for adult life on air pollution and environmental concerns in Ghana.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect the views of mixed ability learners.</li> <li>• Embrace ideas of learners from different geographical zones</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Showing empathy and cooperation</li> <li>• SMART goal setting</li> <li>• Self-reflecting</li> <li>• finding confidence</li> </ul>

		<ul style="list-style-type: none"><li>• Self-awareness</li><li>• Exhibiting motivation</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, creativity.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
I.3.3.CS.1	I.3.3.LI.1	I.3.3.AS.1
Demonstrate an understanding of the causes of environmental pollution and the strategies for dealing with it	<p><b>Examine causes and measures for preventing or mitigating air pollution in Ghana</b></p> <p><b>Talk for Learning:</b> Learners think pair and share definition of air pollution.</p> <p><b>Talk for Learning:</b> In an all-inclusive whole class discussion, and with the aid of pictures/videos discuss the causes of air pollution in Ghana. Use mind maps to organise learners thoughts.</p> <p><b>Activity-Based Learning:</b> In mixed ability and mixed gender groupings create posters on the effects of air pollution and ways of addressing air pollution. Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</p>	<p><b>Level 1 Recall</b> Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b></p>
	I.3.3.LI.2	I.3.3.AS.2
	<p><b>Examine causes and measures for preventing/mitigating water pollution in Ghana</b></p> <p><b>Exploratory Learning:</b> Embark on a trip to a nearby polluted water body/watch a video on water pollution</p> <p><b>Talk for Learning:</b></p> <ul style="list-style-type: none"> <li>Brainstorm on the definition of water pollution.</li> <li>In an all-inclusive whole class discussion, and with the aid of pictures/videos discuss the causes of water pollution in Ghana. Learners during discussions should provide opportunities for others to practice identifying potential situations or experiences that lead to feeling overwhelmed and struggling to manage emotions.</li> </ul> <p><b>Activity-Based Learning:</b> Create a mind-map on the causes, effects and prevention of water pollution.</p>	<p><b>Level 1 Recall</b> Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>Use pictures/videos and other sources to show the causes and effects of air pollution in Ghana.</li> <li>Use pictures/videos and other sources showing water pollution, causes and effects in Ghana.</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**   **4. ENVIRONMENTAL HAZARDS AND THEIR MANAGEMENT**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>I.3.4.LO.1</p> <p>Sketch a map showing the environmental hazard areas in Ghana</p>	<p><b>Communication skills:</b> Is developed as learners respond to questions and interact with each other.</p> <p><b>ICT and information literacy:</b> Through watching videos, viewing pictures and digital images of hazards/ disasters in Ghana.</p> <p><b>Creativity, innovation and personal development skills:</b> By undertaking individual tasks of map production on hazards/disasters in their localities and Ghana.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Embrace diversity and practice inclusion of learners from different environmental conditions.</li> <li>• Examine and dispel gender misconceptions/ myths about map sketching.</li> <li>• Identify injustice, especially in recognition of the contributions of different groups and individuals to the effective management and maintenance of the home.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and</p>

		<p>understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• SMART goal setting</li><li>• Self-reflecting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, environmental awareness.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
I.3.4.CS.1	I.3.4.LI.1	I.3.4.AS.1
Demonstrate understanding of the concepts 'hazard' and 'disaster'	<p><b>Differentiate between hazards and disasters</b></p> <p><b>Talk for Learning:</b> Through questioning, learners brainstorm</p> <p>(i) The definition of hazards and disasters</p> <p>(ii) Types of hazards and disasters in Ghana from your community</p> <p><b>Collaborative Learning:</b> In pairs, map areas prone to environmental disasters (e.g. earthquakes or tremors, landslides, floods and drought) in your community or Ghana. Learners during discussions should provide opportunities for others to practice identifying potential situations or experiences that lead to feeling overwhelmed and struggling to manage emotions.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	I.3.4.LI.2	I.3.4.AS.2
	<p><b>Sketch areas in Ghana prone to floods, drought, bushfires and earthquakes</b></p> <p><b>Project-based learning:</b></p> <ul style="list-style-type: none"> <li>In an all-inclusive grouping, visit a nearby area in your locality that is prone to hazard and produce a disaster map.</li> </ul> <p>In discussions, learners should listen to their peers' opinions and express disagreements in constructive ways.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>A visit to hazards or disaster-prone areas in your community.</li> <li>Pictures/videos, maps and other sources showing hazards/disasters in Ghana.</li> <li>Use pictures/videos, maps and other sources showing disasters in Ghana.</li> </ul>	

# YEAR TWO

**Subject**      **GEOGRAPHY**  
**Strand**        **I. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**    **I. THE EARTH AND ITS FEATURES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI <sup>3</sup> , SEL <sup>4</sup> and Shared National Values
<p>2.1.1.LO.1</p> <p>With reference to the shape and movement of the earth, discuss the concept of continental drift</p>	<p><b>Communication and collaborative skills:</b> Oral communication and teamwork through discussions in interactive groups.</p> <p><b>Communication and Collaborative skills:</b> Oral and written communication, teamwork and tolerance of views in groups discussions and presentation of findings in class.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals from the African continent.</li> <li>• Tolerate diversity and practice inclusion of people from different parts of Africa.</li> <li>• Interrogate their stereotypes and biases about people from different racial groups Sensitive to the inter-relatedness of the various aspects of life.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way;</p>

<sup>3</sup> Gender Equality and Social Inclusion

<sup>4</sup> Socio-Emotional Learning



		<p>cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Showing empathy and cooperation</li> <li>• SMART goal setting</li> <li>• Self-reflecting</li> <li>• Finding confidence</li> </ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, appreciate wide variety of landforms.</p>
<p>2.1.1.LO.2</p> <p>Identify the different types of landforms (mountains and plains), describe the processes that create them and examine their importance</p>	<p><b>Digital literacy:</b> By watching video on the processes and formation of mountains.</p> <p><b>Communication and Collaborative skills:</b> Interactive learning and discussion in groups build confidence, engender inclusivity and tolerance of opinions and promotes oral communication.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Fender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect the views of individuals of different relief areas.</li> <li>• Embrace diversity and practice inclusion.</li> <li>• Interrogate their stereotypes and biases about people living in different relief areas.</li> <li>• Sensitive to the connectedness of the benefits of the various landforms.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-</i></p>

		<p><i>Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• Finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Respect and tolerance, environmental harmony, respect for authority.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>		<b>Assessment</b>
2.1.1.CS.1	2.1.1.LI.1		2.1.1.AS.1
Demonstrate an understanding of the internal structure of the earth and the concept of continental drift	<p><b>Sketch, label and describe the internal structure of the Earth</b></p> <p><b>Talk for learning:</b> Using videos or pictures and other resources, Learners in pairs discuss the components of the internal structure of the earth and share with whole class.</p> <p><b>Activity-Based Learning:</b> Using appropriate resources draw a well labelled diagram showing the internal structure of the earth. Learners in group discussions should not forget the emotions people attached to religious, political and ethnic issues.</p>		<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p>Level 4 Extended critical thinking and reasoning</p>
	2.1.1.LI.2		2.1.1.AS.2
	<p><b>Explain the concept of continental drift and discuss the supporting evidence</b></p> <p><b>Exploratory Learning:</b> Research about continental from various sources including the internet, library and books.</p> <p><b>Collaborative Learning:</b> In small mixed-gender groups of assigned roles, discuss the concept and evidence of continental drift using available sources and present findings. Learners should consider the emotions of individuals who struggle to express themselves.</p>		<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Pictures</li> <li>• Diagrams of the internal structure of the earth</li> <li>• Globe</li> </ul>	<ul style="list-style-type: none"> <li>• Pictures of the continents,</li> <li>• Physical models (jigsaw-puzzles)</li> </ul>	<ul style="list-style-type: none"> <li>• Videos showing continental drift</li> <li>• World map</li> </ul>

<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
2.1.1.CS.2	2.1.1.LI.1	2.1.1.AS.1
Demonstrate knowledge and understanding of landforms, their importance and the processes that leads to their creation	<p><b>Identify the different types of mountains (e.g. volcanic, fold and block), their characteristics, the processes that create them and their importance</b></p> <p><b>Exploratory learning:</b> Through nature walk, observe mountains/hills (or any high grounds) in the vicinity; use videos and sequential photos to examine the processes that create such highlands.</p> <p><b>Activity-Based Learning:</b> Create posters on different types of mountains, their features, benefits and processes leading to their formation. Learners should create an environment in which others believe that their thoughts and opinions are valued.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning</p>
	2.1.1.LI.2	2.1.1.AS.2
	<p><b>Describe the types of plains (structural, erosional and depositional) and the processes that create them and their importance</b></p> <p><b>Digital learning:</b> In small GESI responsive groups (interactive, collaborative, diverse needs and mixed ability); learners watch a video on plains and share their thoughts with class.</p> <p><b>Activity-Based Learning</b></p> <ul style="list-style-type: none"> <li>• Individually make sketches of plains and describe their features.</li> <li>• Discuss the importance of plains.</li> </ul> <p>In groups, learners with strong characters should be aware of it in order not to abuse the emotions of other members.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Pictures, videos and other materials showing fault structures</li> <li>• Pictures or videos of plains</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **1. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**   **2. ROCKS, WEATHERING, SOIL AND MASS WASTING**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.1.2.LO.1</p> <p>Discuss the factors of soil formation, soil types and importance</p>	<p><b>Critical thinking skills:</b> By think-pair-sharing on soil and its components, identifying the factors of soil formation.</p> <p><b>Critical thinking, self-confidence:</b> By working in groups to conduct the experiment, they develop the ability to question practices, opinions, independent development for life-long learning and adult life.</p> <p><b>Communicative and collaborative skills:</b> Team building, written and oral communication through peer learning from others during the experiment.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Accept diversity and practice inclusion of people with different temperaments and academic capabilities.</li> <li>• Consider the spatial differential needs of learners.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Showing empathy and cooperation</li> <li>• SMART goal setting</li> <li>• Self-reflecting</li> </ul>

		<ul style="list-style-type: none"><li>• finding confidence</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, avoid practices that enhance soil erosion, risk prevention, respect for environment, environmental harmony, concern citizen.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
2.1.2.CS.1	2.1.2.LI.1	2.1.2.AS.1
Demonstrate knowledge and understanding of soils	<p><b>State and explain the factors of soil formation</b></p> <p><b>Talk for Learning:</b> Brainstorm on the definition, composition and profile of soils ensuring gender responsiveness and different abilities.</p> <p><b>Collaborative learning and talk for learning:</b> Using mixed ability and interactive small groups, discuss the factors of soil formation. Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	2.1.2.LI.2	2.1.2.AS.2
	<p><b>Differentiate between the soil types and discuss the importance of soil</b></p> <p><b>Experiential learning:</b> In mixed ability groups, perform an experiment using real objects to differentiate between clay, loam and sandy soils. Learners should be conscious of resolving interpersonal conflicts with each other if they arise in group discussions.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Collect samples of soil types in the environment</li> <li>• Charts and pictures of soil types, their composition</li> <li>• Buckets, bottle of water, funnel, and other soil sampling materials</li> </ul>	<ul style="list-style-type: none"> <li>• Google Earth or satellite images of soil degradation</li> <li>• Videos on soil formational processes, types, soil degradation processes and conservative techniques</li> </ul>

**Subject**      **GEOGRAPHY**  
**Strand**        **1. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**   **3. THE EARTH ATMOSPHERE**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.1.3.LO.1</p> <p>Examine factors that influence the elements of climate, the world climatic zones and the associated vegetation zones</p>	<p><b>Communication skills and Personal development:</b> Verbal communication skills and self-confidence and public speaking through individual participation in discussions.</p> <p><b>Communication skills and self-confidence:</b> Verbal and written communication skills, self-confidence, leadership and public speaking through individual participation in discussions and report writing.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different religious, ethnic and political backgrounds.</li> <li>• Embrace diversity and practice inclusion of people from different climatic and vegetational zones.</li> <li>• Examine and dispel misconceptions/myths about climate change.</li> <li>• Identify injustice, especially, in recognition of the contributions of different groups and individuals to the management and maintenance of the home and the environment.</li> <li>• Value and promote environmental justice in home and in society.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-</i></p>



		<p><i>Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Self-reflecting</li><li>• Finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, environmental consciousness, risk prevention, concern citizenship.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI		Assessment
2.1.3.CS.1 Demonstrate understanding of the factors that influence the elements of climate, the world climatic zones and associated vegetation types	2.1.3.LI.1 <b>Discuss the factors influencing the various climatic elements</b>  <b>Inquiry-Based Learning:</b> Conduct individual research on the factors that influence the weather  <b>Talk for learning:</b> Learners share perspectives on the factors influencing the various elements of the weather through a whole class discussion. Learners in group discussions should not forget the emotions people attached to religious, political and ethnic issues.		2.1.3.AS.1 Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning Level 4 Extended critical thinking and reasoning
	2.1.3.LI.2 <b>Identify the forms of precipitation and the types of rainfall</b> <b>Exploratory-Learning:</b> In GESI-responsive groups research about the various types of precipitation. <b>Collaborative Learning:</b> Discuss the forms of precipitation, their formation and characteristics.		2.1.3.AS.2 Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning
	2.1.3.LI.3 <b>Describe the characteristics associated with vegetation within each climatic zone in the world</b>  <b>Talk for learning:</b> Using videos, pictures and other relevant materials in all-inclusive and gender responsive, brainstorm as a whole class the climate and its associated vegetation.  <b>Activity-Based Learning:</b> In manageable GESI groups, design posters on the vegetation within each climatic zone and describe their key features. Learners during discussions should provide opportunities for others to practice identifying potential situations or experiences that lead to feeling overwhelmed and struggling to manage emotions.		2.1.3.AS.3 Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning Level 4 Extended critical thinking and reasoning
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Textbooks</li> <li>• Videos/pictures of types of air masses and fronts</li> </ul>	<ul style="list-style-type: none"> <li>• Videos/pictures of types of rainfall and factors that influence weather and climate</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **2. NAVIGATING OUR ENVIRONMENT**  
**Sub-Strand**   **1. MAPS: THEIR ELEMENTS AND ANALYSES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.2.1.LO.1</p> <p>Using the knowledge from maps and scales, reproduce maps, measure distances and areas, determine direction and bearings, and draw cross-sectional profiles between places</p>	<p><b>Digital and ICT literacy:</b> Through the search for information or watching video on how to reduce and enlarge maps. Through the search for information or watching video on measurement of distances and areas on a topographical map.</p> <p><b>Collaborative and communicative skills:</b> Through sharing of ideas by think-pair-share and group discussion on map reproduction and insertion of features on maps, they build a sense of working together, oral and writing skills.</p> <p><b>Creativity skills:</b> By drawing a reduced or enlarged map and inserting features, they become creative and artistic.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different geographical backgrounds.</li> <li>• Embrace diversity and practice inclusion of mixed ability groups.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Showing empathy and cooperation</li> <li>• SMART goal setting</li> <li>• Self-reflecting</li> <li>• Exhibiting motivation</li> </ul>

		<b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility creativity, accuracy, truthfulness.
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
2.2.1.CS.1	2.2.1.LI.1	2.2.1.AS.1
Demonstrate skill in map analysis	<p><b>Reproduce map by reduction and enlargement</b></p> <p><b>Talk for learning:</b> Using video, maps and other relevant materials in all-inclusive, emphasizing on gender responsive groups;</p> <ul style="list-style-type: none"> <li>i) Discuss, the steps or procedures to reduce and enlarge a map.</li> <li>ii) Elaborate on the steps or procedures to insert features on a reproduced map.</li> </ul> <p><b>Project-based Learning:</b> Engage in an artwork by reducing and enlarging a given map individually and insert important physical and human features. Learners during discussions should provide opportunities for others to practice identifying potential situations or experiences that lead to feeling overwhelmed and struggling to manage emotions.</p>	Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning
	2.2.1.LI.2	2.2.1.AS.2
	<p><b>Measure distances and areas on maps</b></p> <p><b>Talk for learning:</b> Using video, maps and other relevant materials in all-inclusive groups of people from different geographical areas, do a whole class discussion on the techniques, and steps to measure distances and areas on a topographical map after watching a video on distance measurement on maps. Learners during discussions should provide opportunities for others to practice identifying potential situations or experiences that lead to feeling overwhelmed and struggling to manage emotions.</p> <p><b>Activity-based Learning:</b></p> <ul style="list-style-type: none"> <li>• Undertake the measurement of distances on a given map and areas of maps individually.</li> <li>• In pairs carry out actual ground distance and area measurements on the school compound using a measuring tape.</li> </ul>	Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning
	2.2.1.LI.3	2.2.1.AS.3
	<p><b>Determine directions and bearings</b></p> <p><b>Talk for Learning:</b> Using videos, maps and other relevant resources, Initiate a class discussion on the processes of measuring bearing and determining direction of places on a map,</p>	Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> <b>Level 3 Strategic</b>

	<p><b>Exploratory Learning</b></p> <ul style="list-style-type: none"> <li>• Work in pairs to find the direction and bearing of places on a given map.</li> <li>• Work individually to find the direction and calculate the bearing of places on a topographical map.</li> </ul> <p>Learners should be conscious of resolving interpersonal conflicts with each other if they arise in group discussions.</p>	<p><b>reasoning</b> Level 4 Extended critical thinking and reasoning</p>
	<p>2.2.1.LI.4</p> <p><b>Draw sectional profiles (annotated) and calculate vertical exaggeration and gradient</b></p> <p><b>Collaborative learning:</b> Using videos, maps and other relevant resources, Learners in small groups discuss the processes involved in drawing an annotated cross section between localities on a topographic map and its importance. Share their opinion with whole class.</p> <p><b>Think-pair-sharing:</b> Work in pairs to draw an annotated cross section and calculate the vertical exaggeration of the profile.</p> <p><b>Project-based Learning:</b> Individually, draw an annotated cross section of two places on a topographic map and calculate the vertical exaggeration of the profile.</p>	<p>2.2.1.AS.4</p> <p>Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b></p>
<p><b>Teaching and Learning Resources</b></p>	<ul style="list-style-type: none"> <li>• Watch videos on map reduction and enlargement on mobile phones, computers/laptops.</li> <li>• Printed topographical maps</li> </ul>	<ul style="list-style-type: none"> <li>• Topographical maps</li> <li>• Calculator, thread, paper, measuring tape, etc.</li> </ul>

**Subject**      **GEOGRAPHY**  
**Strand**        **2. NAVIGATING OUR ENVIRONMENT**  
**Sub-Strand**    **2. GEOSPATIAL DATA COLLECTION, REPRESENTATION AND INTERPRETATION**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.2.2.LO.1</p> <p>Collect geospatial data using both traditional methods e.g. chain and compass surveying and modern methods e.g. remote sensing and Geographic Information Systems (GIS), Global Positioning System (GPS) and mobile Apps</p>	<p><b>Digital and information literacy skills:</b> Through collecting and mapping geospatial data in various forms using the computer, mobile and other digital Apps.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect learners’ social characteristics differences.</li> <li>• Embrace diversity and practice inclusion of men and women in all group work.</li> <li>• Identify injustice, especially in recognition of the contributions of different groups and individuals to the effective management and maintenance of the home, society and the environment.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and</p>

		<p>understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Showing empathy and cooperation</li><li>• finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, uniqueness, accurateness, truthfulness.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
2.2.2.CS.1	2.2.2.LI.1	2.2.2.AS.1
Demonstrate skills in basic geospatial data collection methods	<p><b>Identify and discuss the methods of collecting geospatial data (surveying, remote sensing, GIS, GPS etc)</b></p> <p><b>Talk for learning:</b> Using pictures, videos and other relevant materials in all-inclusive groupings, being mindful of reserved learners, identify and discuss the methods of collecting geospatial data (surveying, remote sensing, GIS, GPS etc).</p> <p><b>Collaborative Learning:</b> Through think pair share, identify the similarities and differences between different methods of collecting geospatial data. Learners should be conscious of resolving interpersonal conflicts with each other if they arise in group discussions.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
	2.2.2.LI.2	2.2.2.AS.2
	<p><b>Collect and map geospatial data using Computer and Mobile Apps, GIS and GPS</b></p> <p><b>Activity-based learning:</b> Collect and map geospatial data using Computer and Mobile Apps, GIS and GPS</p> <p>Learners should understand cause and effect of decision they make.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
2.2.2.LI.3	2.2.2.AS.3	2.2.2.AS.3
	<p><b>Explore the emerging technologies for geospatial data collection</b></p> <p><b>Talk for learning:</b> Using pictures, videos and other relevant materials in an all-inclusive with emphasis of learners from different geographical areas discussion, explore the emerging technologies for geospatial data collection. In discussions, learners should listen to their peers' opinions and express disagreements in constructive ways.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Computer</li> <li>• Mobile Apps for collecting geospatial data and mapping</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**    **1. PHYSICAL SETTINGS AND PEOPLE**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.3.1.LO.1</p> <p>Compare and contrast the physical geography of Ghana to West Africa and Africa</p>	<p><b>Collaborative and Communication skills:</b> Oral communication, respect for diverse views and team work are developed as they express themselves in responding to questions and sharing ideas in their various groups.</p> <p><b>Personal development:</b></p> <ul style="list-style-type: none"> <li>• Self-confidence to speak in public among others are developed as they work in mixed ability groups and share ideas.</li> <li>• Self-confidence to speak in public among others are developed as they work in mixed ability groups and share ideas.</li> </ul> <p><b>Creative and Innovation skills:</b> Are developed as they learn to draw the maps of administrative maps of West Africa and Africa.</p> <p><b>Communication skills:</b> Oral communications developed as they express themselves in discussions.</p> <p><b>Collaboration and self-confidence:</b> Through sharing ideas, they build their confidence level and peer bonding.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals from different racial groups.</li> <li>• Accept diversity and practice inclusion of people from different areas in Africa.</li> <li>• Interrogate their stereotypes and biases about gender and the role men and women in different geographical areas in Africa.</li> <li>• Sensitive to the inter-connectedness of all countries in Africa.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals</p>

		<p>will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• Self-reflecting</li><li>• Finding confidence</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, respect for African Neighbours.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
2.3.1.CS.1	2.3.1.LI.1	2.3.1.AS.1
Demonstrate skills of drawing and showing the physical setting of West Africa and Africa	<p><b>Describe the geographic location, size and political divisions of West Africa and Africa</b></p> <p><b>Collaborative Learning:</b> Using maps, atlases and other relevant information in mixed ability, different cultural and gender-sensitive groups discuss and compare the position, administrative regions and size of West Africa and Africa.</p> <p><b>Digital Learning:</b></p> <ul style="list-style-type: none"> <li>• Use smart phones or computers or laptops to search for the size and administrative regions in West Africa and Africa.</li> <li>• Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</li> </ul>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p>Level 4 Extended critical thinking and reasoning</p>
	2.3.1.LI.2	2.3.1.AS.2
	<p><b>Describe the relief, drainage, climate and vegetation of West Africa and Africa</b></p> <p><b>Talk-For-Learning:</b> In all-inclusive and interactive learning process, discuss the characteristics of the relief, drainage, climate and vegetation of West Africa and Africa.</p> <p><b>Activity-Based Learning:</b></p> <ul style="list-style-type: none"> <li>• Using videos, maps, atlas or relevant materials and in pairs, sketch the map of West Africa on the following physical elements: relief, drainage, climatic and vegetation zones.</li> <li>• Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</li> </ul>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Atlas</li> <li>• Maps</li> <li>• Smart phones</li> </ul>	<ul style="list-style-type: none"> <li>• Computers/laptops</li> <li>• Watch videos on relief, drainage, vegetation of West Africa/Africa from TVs</li> </ul>

**Subject**            **GEOGRAPHY**  
**Strand**             **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**       **2. ECONOMIC ACTIVITIES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.3.2.LO.1</p> <p>Examine the types distribution, characteristics, importance and challenges of manufacturing industries in Ghana</p>	<p><b>Collaboration and self-confidence:</b> Develop team spirit, respect for each other and build their self-confidence level in public speaking as they discuss and share ideas.</p> <p><b>Communication skills:</b> Verbal and written communication skills are developed as they express themselves, research and write reports on the solutions to industries.</p> <p><b>Problem solving skills:</b> Are developed through research and field investigations to find solutions to the challenges of manufacturing industries.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different ethnic, religious and political backgrounds.</li> <li>• Embrace diversity and practice inclusion learners from different socio-economic zones.</li> <li>• Identify injustice, especially in recognition of the contributions of mixed ability groups and individuals to the effective management and maintenance of the home.</li> <li>• Sensitive to the inter-relatedness of the various aspects of life.</li> <li>• Value and promote justice in home and in society.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they</p>

		<p>work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Showing empathy and cooperation</li><li>• finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, appreciate made in Ghana goods.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
2.3.2.CS.1	2.3.2.LI.1	2.3.2.AS.1
Analyse the manufacturing sector in Ghana	<p><b>Discuss the distribution, types and characteristics of manufacturing industries in Ghana</b></p> <p><b>Collaborative learning:</b> Using videos, maps and other relevant resources discuss the distribution of manufacturing industries, types and their characteristics in Ghana, and explain the reasons for their concentration in some parts of the country.</p> <p><b>Activity-Based Learning:</b> Produce a map on the distribution of manufacturing industries in Ghana.</p> <p><b>Experiential Learning:</b> Embark on a field trip to a nearby industry;</p> <ul style="list-style-type: none"> <li>• Give a report on the reasons for its establishment in that locality</li> <li>• Research about the types and characteristics of manufacturing industries in Ghana</li> </ul> <p>Learners in group discussions should not forget the emotions people attached to religious, political and ethnic issues</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p>Level 4 Extended critical thinking and reasoning</p>
	2.3.2.LI.2	2.3.2.AS.2
	<p><b>Discuss the importance and challenges of manufacturing industries in Ghana</b></p> <p><b>Talk for Learning:</b> Learners think pair share and outline some importance of manufacturing industries in Ghana and possible challenges that may confront them. Use mind maps to structure contributions.</p> <p><b>Problem Based Learning:</b> Either in a field tour to a local industry or researching using internet or relevant information sources:</p> <ul style="list-style-type: none"> <li>• Investigate the challenges facing manufacturing industries in Ghana</li> <li>• Investigate to find out solutions to the challenges of the industry/recommend solutions to the possible challenges</li> </ul> <p>Learners should be conscious of resolving interpersonal conflicts with each other if they arise in group discussions.</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Projectors</li> <li>• Atlas</li> </ul>	<ul style="list-style-type: none"> <li>• Smart phones</li> <li>• Local or community industries</li> </ul>

	<ul style="list-style-type: none"><li>• Computers/laptops</li><li>• Maps</li></ul>	<ul style="list-style-type: none"><li>• Documentary videos on related industries in Ghana or similar geographical context</li></ul>
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**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**   **3. ENVIRONMENTAL DEGRADATION**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.3.3.LO.1</p> <p>Analyse causes, effects and preventing or mitigating strategies for land degradation and soil pollution in Ghana</p>	<p><b>Self-awareness</b> by determining which behaviour makes one a good citizen and which behaviour makes one a bad citizen.</p> <p><b>Critical thinking and problem-solving skills</b> are demonstrated as learners discuss and discover effects and remedies of soil pollution in their communities.</p> <p><b>Global citizenship:</b> Through distinguishing between good behaviour and bad behaviour as a citizen with regards to soil degradation.</p> <p><b>Self-awareness:</b> By determining which behaviour makes one a good citizen and which behaviour makes one a bad citizen.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different geographical locations.</li> <li>• Embrace cultural diversity and practice inclusion of learners from different cultures.</li> <li>• Interrogate their stereotypes and biases about gender and the role men and women play in environmental management.</li> <li>• Identify injustice, especially in recognition of the contributions of different groups and individuals to the effective management of the environment.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship</i>)</p>

		<p><i>Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• SMART goal setting</li><li>• Self-reflecting</li><li>• Finding confidence</li><li>• Self-awareness</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, the environment is our friend, don't destroy it, risk prevention.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI		Assessment
2.3.3.CS.1	2.3.3.LI.1		2.3.3.AS.1
Demonstrate skills of preventing or mitigating land degradation and soil pollution in Ghana	<p><b>Discuss the causes of land degradation, its effects and management strategies in Ghana</b></p> <p><b>Talk for Learning:</b> Brainstorm on the meaning of land degradation. Considering the cultural diversity and different location of learners, let them share their experiences</p> <p><b>Experiential Learning:</b> Embark on a fieldtrip to a nearby mines/watch a video documentary on mining and document machinery used in mining activities for presentation in groups.</p> <p><b>Talk-for-learning:</b> Discuss and discover in GESI responsive groups, the effects of land degradation on the environment and suggest remedies to reducing the effects. In groups, all Learners should be aware of the emotions of all members, especially the vulnerable ones.</p>		Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
	2.3.3.LI.2	2.3.3.AS.2	
	<p><b>Discuss the causes of soil pollution, its effects and management strategies in Ghana</b></p> <p><b>Talk for learning:</b></p> <ul style="list-style-type: none"> <li>• Brainstorm the definition of soil pollution</li> <li>• In different task groups learners s identify causes of soil pollution in local communities</li> <li>• discuss and identify the impacts of soil</li> <li>• pollution on humans and the environment and propose remedies to mitigate the menace. Learners should consider the emotions of individuals who struggle to express themselves</li> </ul> <p><b>Activity-Based Learning:</b> Create a mind-map on the causes, effects and control of soil erosion in Ghana</p>		Level 1 Recall <b>Level 2 Skills of conceptual understanding</b> Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Pictures/videos and other materials showing land degradation</li> <li>• Pictures/videos and other materials showing the effects of land degradation on the earth’s surface</li> </ul>	<ul style="list-style-type: none"> <li>• Mobile phones</li> <li>• Computers</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**   **4. ENVIRONMENTAL HAZARDS AND THEIR MANAGEMENT**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>2.3.4.LO.1</p> <p>Evaluate measures for controlling or mitigating floods, droughts, earthquakes and fires in Ghana</p>	<p><b>Communication skills:</b> Developed as they express themselves in responding to questions and sharing ideas in their various groups</p> <p><b>Collaboration and self-confidence:</b></p> <ul style="list-style-type: none"> <li>• Learners work in mixed ability groups, share ideas and build their confidence level.</li> <li>• Learners work in mixed ability groups, share ideas and build their confidence level.</li> </ul> <p><b>ICT literacy, creativity and innovative skills:</b> Developed by mapping flood areas/zones either by using computer and smart phone Apps or printed maps.</p> <p><b>Problem solving skills</b> is achieved as learners discover strategies in curbing floods. As learners discover strategies in curbing fire outbreaks and drought.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different ethnic backgrounds.</li> <li>• Embrace diversity and practice inclusion of mixed ability learners.</li> <li>• Identify injustice, especially in recognition of the extent of vulnerabilities of different groups and individuals resulting from disasters</li> <li>• Value and promote environmental justice in the society.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals</p>

		<p>will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Self-reflecting</li><li>• Finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, natural disaster consciousness, risk prevention, risk reduction.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
2.3.4.CS.1	2.3.4.LI.1	2.3.4.AS.1
Demonstrate skills for managing earthquakes, floods, drought and fires	<p><b>Examine the measures for managing floods in Ghana</b></p> <p><b>Experiential learning:</b> View/watch pictures/video or other resources on floods, brainstorm on the definition of flood. Learners share their observations with whole class.</p> <p><b>Talk for Learning:</b> Through think-pair-share, discuss the causes of floods in our communities/districts/Ghana.</p> <p><b>Activity-Based Learning:</b></p> <ul style="list-style-type: none"> <li>• In pairs, identify low lying areas or water channels of within the community.</li> <li>• Using printed maps or computer or smart phone Apps, map areas that are prone to floods in your community, district or region.</li> </ul> <p>In groups, learners with strong characters should be aware of it in order not to abuse the emotions of other members.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
	2.3.4.LI.2	2.3.4.AS.2
	<p><b>Examine the measures for managing drought and fires in Ghana</b></p> <p><b>Talk for learning:</b> Brainstorm on the definition of drought. Individual learner share their thoughts.</p> <p><b>Experiential Learning:</b></p> <ul style="list-style-type: none"> <li>• Using pictures/videos on drought, discuss the causes of drought in Ghana</li> <li>• In mixed ability and GESI responsive groups, explore methods to mitigate droughts and fire outbreaks in our communities and Ghana and present the findings in class. Taking into consideration learners from different ethnic backgrounds</li> </ul> <p>Learners should help to expand others' emotional vocabulary and their abilities to identify physical sensations related to feelings.</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Maps, arts toolkits, computers and projectors</li> <li>• Data on the floodable areas</li> <li>• Pictures or video documentary on drought</li> <li>• Charts to explain drought mitigation strategies</li> </ul>	

# YEAR THREE

**Subject**      **GEOGRAPHY**  
**Strand**        **I. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**    **I. THE EARTH AND ITS FEATURES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI <sup>5</sup> , SEL <sup>6</sup> and Shared National Values
<p>3.1.2.LO.1</p> <p>With your knowledge on the characteristics of mountains, discuss the development of river channels and associated landforms and their importance with reference to Ghana</p>	<p><b>Communication and collaborative skills:</b> Through sharing of ideas with their colleagues and learning to cope with members in the collaborative groups.</p> <p><b>Digital and information literacy:</b> Through the search for information on the river landforms on Google Earth and various sources.</p> <p><b>Collaborative skills:</b> As members cooperate, tolerate and learn to work as a team.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Sensitive to the views of different learners based on their exposure to water from different drainage areas.</li> <li>• Interrogate their stereotypes and biases about gender and the role men and women play in water management.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals</p>

<sup>5</sup> Gender Equality and Social Inclusion

<sup>6</sup> Socio-Emotional Learning



		<p>will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Self-reflecting</li><li>• Finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, avoid water pollution, water preservation.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
<p>3.1.1.CS.1</p> <p>Demonstrate knowledge and understanding of river channels and associated landforms</p>	<p>3.1.1.LI.1</p> <p><b>Describe the development of river channels and associated landforms</b></p> <p><b>Exploratory Learning:</b> Prior to the lesson, individually, research on the formation of erosional and depositional landforms.</p> <p><b>Talk-for-Learning:</b> Using questions and answer technique, explain the formation of erosional and depositional landforms of rivers. Consider learners with different learning needs. Learners should consider the emotions of individuals who struggle to express themselves.</p> <p><b>Geographic enquiry:</b> Embark on a field trip to a nearby river or watch videos on river processes and landforms.</p>	<p>3.1.1.AS.1</p> <p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> <b>Level 4 Extended critical thinking and reasoning</b></p>
	<p>3.1.1.LI.2</p> <p><b>Examine the importance of river landforms to the socio-economic development in Ghana</b></p> <p><b>Project-based learning:</b> Write a report to include river landforms identified on Google Earth App or other digital sources or during the field trip.</p> <p><b>Talk for learning:</b> In manageable, cultural, gender-responsive, interactive groups, discuss how and why the river landforms are beneficial to socio-economic development of Ghana. The emotions of Approaching proficiency Learners should not be override when they don't contribute to discussion as expected.</p>	<p>3.1.1.AS.2</p> <p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> <b>Level 4 Extended critical thinking and reasoning</b></p>
<p><b>Teaching and Learning Resources</b></p>	<ul style="list-style-type: none"> <li>• Use videos, pictures, Google Earth App and other digital sources to view channels of major rivers and identify examples of river landforms</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **1. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**    **2. ROCKS, WEATHERING, SOIL AND MASS WASTING**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.1.2.LO.1</p> <p>Examine the factors, types and effects of mass wasting</p>	<p><b>Information literacy skills:</b></p> <ul style="list-style-type: none"> <li>• Through brainstorming and sharing of ideas in group discussion and seeking information from diverse sources.</li> <li>• Collaboration and information literacy skills are achieved as learners work in groups and search for information from different sources.</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different intellectual capabilities.</li> <li>• Embrace diversity and practice inclusion of people from different landform areas.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Finding confidence</li> <li>• Self-awareness</li> <li>• Exhibiting motivation</li> <li>• SMART goal setting</li> </ul>

		<p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, be mindful of natural disasters, Risk prevention, conservation of vegetation.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
3.1.2.CS.1	3.1.2.LI.1	3.1.2.AS.1
Demonstrate knowledge of mass wasting as a geomorphic process	<p><b>Discuss mass wasting and the factors that influence it</b></p> <p><b>Digital learning:</b> Watch videos and pictures on mass wasting. Learners share their observation.</p> <p><b>Talk for learning:</b> Using brainstorming define and account for the factors influencing mass wasting. Learners should realise that they can accomplish their goals with hard work, persistence, and good strategies.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	3.1.2.LI.2	3.1.2.AS.2
	<p><b>Examine the types of mass wasting</b></p> <p><b>Talk for learning:</b> Think-pair-share on the types of mass wasting processes Learners should realise that they can accomplish their goals with hard work, persistence, and good strategies.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	3.1.2.LI.3	3.1.2.AS.3
	<p><b>Discuss the socio-economic and environmental effects of mass wasting</b></p> <p><b>Collaborative Learning:</b> Conduct group research and create PowerPoint presentations on socio-economic and environmental effects of mass wasting for class presentations. Learners working in a group should allow their colleagues to develop interpersonal and communication skills, and to create a community where Learners assign themselves specific roles.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>Use pictures, videos, field observations and other learning resources to show evidence of mass wasting.</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **1. THE EARTH AND ITS NEIGHBOURHOODS**  
**Sub-Strand**   **3. THE EARTH ATMOSPHERE**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.1.3.LO.1</p> <p>Discuss the causes and evidence of climate change, its impacts and the adaptation and mitigation strategies in Ghana</p>	<ul style="list-style-type: none"> <li>• Collaboration skills through working in group with their colleagues.</li> <li>• Problem solving skills through the discussion of remedies to climate change.</li> <li>• Glocal citizenship by knowing the socio-economic impacts and ways to combat climate change both in Ghana and beyond.</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different political, religious and ethnic backgrounds.</li> <li>• Embrace diversity and practice inclusion of people from different climatic regions.</li> <li>• Examine and dispel misconceptions/ myths on climate change.</li> <li>• Awareness of the inter-connectedness of the global climatic factors.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and</p>

		<p>individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Showing empathy and cooperation</li><li>• Self-awareness</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, understanding climate change.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
3.1.3.CS.1	3.1.3.LI.1	3.1.3.AS.1
Demonstrate knowledge of climate change and its impacts on the environment and socio-economic development	<p><b>Discuss the causes and evidence of climate change in Ghana</b></p> <p><b>Inquiry learning:</b></p> <ul style="list-style-type: none"> <li>• Conduct research from various sources including the internet on climate change.</li> <li>• Identify evidence of climate change in Ghana.</li> </ul> <p><b>Activity-Based Learning:</b> Develop charts on climate change using relevant pictures Self-reflection during instruction, especially when solving problems or on accomplished projects and assignments.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning</p>
	3.1.3.LI.2	3.1.3.AS.2
	<p><b>Discuss the socio-economic and environmental impacts of climate change in Ghana and beyond</b></p> <p><b>Collaborative learning:</b> In manageable mixed ability and GESI responsive groups, discuss the socio-economic and environmental impacts of climate change and the adaptation strategies Learners working in groups should allow their colleagues to develop interpersonal and communication skills, and to create a community where Learners assign themselves specific roles.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning</p>
	3.1.1.3LI3	3.1.1.3AS3
	<p><b>Discuss adaptation strategies and remedies for climate change in Ghana</b></p> <p><b>Collaborative learning:</b></p> <ul style="list-style-type: none"> <li>• In manageable GESI responsive and mixed ability groups of learners from different climatic regions, discuss the remedies to combat climate change.</li> <li>• Create posters on how to combat climate change</li> </ul> <p>Learners in group discussions should not forget the emotions people attached to religious, political and ethnic issues.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Use pictures, videos, climate datasets and other sources for searching for information and evidence of climate change.</li> </ul>	



**Subject**      **GEOGRAPHY**  
**Strand**        **2. NAVIGATING OUR ENVIRONMENT**  
**Sub-Strand**   **1. MAPS, THEIR ELEMENTS AND ANALYSES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.2.1.LO.1</p> <p>Analyse natural and cultural features on topographical maps base on the knowledge gained from the representation of relief features on maps</p>	<p><b>Critical thinking skills:</b> Through viewing, describing and analysing features on topographical maps.</p> <p><b>Digital and ICT Skills:</b></p> <ul style="list-style-type: none"> <li>• Through viewing digital Google Earth 3D view and analysing the features</li> <li>• Critical thinking is developed as learners determine intervisibility on a topographical map which involves consideration of varying factors simultaneously.</li> </ul>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals of different cultural backgrounds.</li> <li>• Embrace diversity and practice inclusion of people from different geographical and cultural areas.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Showing empathy and cooperation</li> <li>• Self-awareness</li> <li>• Exhibiting motivation</li> </ul>

		<ul style="list-style-type: none"><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, analytical skills, Curiosity of things we see, fair judgement, optimism.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
3.2.1.CS.1	3.2.1.LI.1	3.2.1.AS.1
Demonstrate skills and competencies in interpreting and analysing maps	<p><b>Analyse natural features on maps (e.g. relief, drainage)</b></p> <p><b>Activity-Based Learning:</b></p> <ul style="list-style-type: none"> <li>In small groups of people from different ethnic groups, describe and analyse the natural and cultural features on a topographical map and their interrelationships.</li> <li>During class assignments and especially before tests, learners should think positively about themselves, confirming that they are prepared and have everything in their power to succeed.</li> </ul>	Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
	3.2.1.LI.2	3.2.1.AS.2
	<p><b>Analyse cultural features on maps (e.g. settlements, farms and roads)</b></p> <ul style="list-style-type: none"> <li>Through think-pair-share, analyse the interrelationship between natural and cultural features on topographical maps and compare with the 3D view on Google Earth. Learners should be aware of the different background of their colleagues.</li> <li>Learners should realise that they can accomplish their goals with hard work, persistence, and good strategies.</li> </ul>	Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
3.2.1.LI.3	3.2.1.AS.3	
	<p><b>Analyse the interrelationships between natural and cultural features on maps</b></p> <p><b>Talk for Learning:</b> Through think-pair-share, determine whether two points on topographical maps are intervisible and calculate gradient between any two points. Learners should realise that they can accomplish their goals with hard work, persistence, and good strategies.</p>	Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>Google Earth in 3D view (zoom to the area covered by the topographical map, so learners can see the natural and cultural features they are describing and analysing)</li> <li>Topographical map (if possible, one covering your school locality)</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **2. NAVIGATING OUR ENVIRONMENT**  
**Sub-Strand**    **2. GEOSPATIAL DATA COLLECTION, REPRESENTATION AND INTERPRETATION**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.2.2.LO.1</p> <p>Represent geospatial data using dot maps and flow charts</p>	<p><b>ICT, Graphical and statistical skills:</b> Through calculating, drawing and analysing geospatial data using dot maps.</p> <p><b>ICT and statistical skills:</b> Through calculating and analysing geospatial data using flow charts and revealing the relationships in the datasets.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Embrace diversity and practice inclusion of geospatial values.</li> <li>• Inclusion of women and men in collecting spatial data</li> <li>• Dispel myths on male dominance in geospatial data collection</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> <li>• Self-reflecting</li> <li>• Finding confidence</li> </ul>

		<ul style="list-style-type: none"><li>• Self-awareness</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, curiosity, precision, analytical skills.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
3.2.2.CS.1	3.2.2.LI.1	3.2.2.AS.1
Demonstrate skills in basic geospatial data representation and interpretation using diagrams	<p><b>Analyse and interpret geospatial data using dot maps</b></p> <p><b>Activity-Based Learning:</b> In an all-inclusive and gender-responsive classroom, analyse and interpret geospatial data using dot maps and discuss the relationships revealed in the datasets. During class task and especially before tests, ask learners should think positively about themselves, confirming that they are prepared and have everything in their power to succeed.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
	<p>3.2.2.LI.2</p> <p><b>Analyse and interpret geospatial data using flow charts</b></p> <p><b>Activity-Based Learning:</b> In a GESI-responsive classroom, analyse and interpret geospatial data using flow charts. Learners should create an environment in which others believe that their thoughts and opinions are valued.</p>	<p>3.2.2.AS.2</p> <p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Geospatial datasets e.g. national, regional, district and local agricultural production such as maize and groundnuts in tonnes</li> <li>• Geospatial datasets e.g. regional and district migration, trade or agricultural production (in tonnes)</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**    **1. PHYSICAL SETTINGS AND PEOPLE**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.3.1.LO.1</p> <p>Using the knowledge gained in the physical environment, analyse population growth and distribution, migration trends and settlement types in Ghana</p>	<p><b>Teamwork/collaborative</b> skills are developed through sharing and accepting ideas of peers in mixed ability groups.</p> <p><b>Collaboration and Communication; Creativity and Innovation skills:</b> Through sharing and accepting the ideas of peers in mixed-ability groups.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect individuals with different intellectual capabilities.</li> <li>• Accept diversity and practice inclusion of people from different ethnic backgrounds.</li> <li>• Interrogate their stereotypes and biases about ethnic groups, gender and the role each person plays in society and home.</li> <li>• Identify injustice, especially in recognition of the contributions of different groups and individuals to the effective management and maintenance of the home, society and environment.</li> <li>• Value and promote respect from people living in different settlements areas.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning</p>

		<p>Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"> <li>• Finding confidence</li> <li>• Self-awareness</li> <li>• Exhibiting motivation</li> <li>• SMART goal setting</li> </ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, birth control.</p>
3.3.1.LO.2		
<p>Compare Ghana's population growth and migration trends to Africa and the world.</p>	<p><b>Collaboration and Communication; Creativity and Innovation skills:</b> Through sharing and accepting the ideas of peers in mixed-ability groups.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Awareness of individuals of different racial backgrounds.</li> <li>• Embrace diversity and practice inclusion of migrants from different parts of Africa.</li> <li>• Examine and dispel misconceptions/myths about gender, racial groups as they relate to human and national development.</li> <li>• Identify injustice, especially in</li> </ul>



		<p>recognition of the contributions of different groups and individuals to the effective management the home and the society.</p> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Self-reflecting</li><li>• finding confidence</li><li>• Exhibiting motivation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility; Cherish Ghanaian values, respect for people from diverse groups, including race.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
3.3.1.CS.1	3.3.1.LI.1	3.3.1.AS.1
Demonstrate understanding of population growth and distribution, migration trends and settlement types in Ghana	<p><b>Examine population growth and distribution in Ghana</b></p> <p><b>Groupwork/collaborative learning:</b></p> <ul style="list-style-type: none"> <li>With the aid of pictures and videos, work in groups to explain population growth, distribution and density</li> <li>Distinguish between population growth, distribution and density.</li> </ul> <p>Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</p>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	3.3.1.LI.2	3.3.1.AS.2
	<p><b>Discuss migration trends, settlement types and patterns in Ghana</b></p> <p><b>Activity-Based learning:</b> In mixed ability groups of people from different population density areas, sketch a map of Ghana showing migration trends.</p> <p><b>Collaborative Learning:</b> In mixed ability and all-inclusive groups, explore settlement types and patterns in Ghana.</p> <p>Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness. strategies, breathing, and self-talk</p>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p>Level 4 Extended critical thinking and reasoning</p>
	3.3.1.LI.3	3.3.1.AS.3
Teaching and Learning Resources	<p><b>Discuss factors influencing population growth, population distribution and migration in Ghana</b></p> <p><b>Talk for learning:</b></p> <ul style="list-style-type: none"> <li>Listen to a presentation or watch a video on population distribution and migration.</li> <li>Through a whole class session, discuss factors influencing population growth, population distribution and migration in Ghana.</li> <li>Learners should realise that they can accomplish their goals with hard work, persistence, and good strategies.</li> </ul>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p>Level 4 Extended critical thinking and reasoning</p>
	<ul style="list-style-type: none"> <li>Use available population data from Ghana Statistical Service, National Population Council and any other sources to facilitate your discussions.</li> <li>Maps of migration trends to aid discussion.</li> <li>Use pictures and videos of different settlement types and patterns for illustrations.</li> </ul>	

<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
3.3.1.CS.2	3.3.1.LI.1	3.3.1.AS.1
Analyse the population growth and migration trends in Africa and the world	<p><b>Compare Ghana's population growth to that of Africa and the world</b></p> <p><b>Experiential learning:</b> Using relevant charts and figures, compare Ghana's population growth to that of Africa and the world. Learners should realise that they can accomplish their goals with hard work, persistence, and good strategies.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning</p>
	<p>3.3.1.LI.2</p> <p><b>Explore the socio-economic implications of migration from Africa to the rest of the world</b></p> <p><b>Inquiry-Based Learning:</b> Research from textbooks, the internet and other sources on the socio-economic implications of migration</p> <p><b>Talk for learning:</b></p> <ul style="list-style-type: none"> <li>• In an all-inclusive with a focus on learners from different parts of the country share your feedback and analyse the differences and similarities between migration in Ghana, Africa and the world.</li> <li>• Discuss the socio-economic implications of migration.</li> <li>• In discussions, learners should listen to their peers' opinions and express disagreements in constructive ways.</li> </ul>	<p>3.3.1.AS.2</p> <p>Level 1 Recall Level 2 Skills of conceptual understanding <b>Level 3 Strategic reasoning</b> Level 4 Extended critical thinking and reasoning</p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Use available population and migration data from Ghana Statistical Service, National Population Council, International Organisation for Migration (IOM) any other sources to facilitate your discussions.</li> </ul>	

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**    **2. ECONOMIC ACTIVITIES**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.3.2.LO.1</p> <p>Assess the role of tourism, trade and transport/communication to the socio-economic development of Ghana</p>	<p><b>Collaboration and information literacy skills</b> are acquired through working in groups and searching for information from different sources on tourism, trade and transport/communication activities in Ghana.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Be sensitive to individuals of different ethnic and racial backgrounds.</li> <li>• Embrace diversity and practice inclusion of different race and ethnic backgrounds.</li> <li>• Examine and dispel misconceptions/myths about gender, racial groups they relate human and national development.</li> <li>• Identify injustice, especially in recognition of the contributions of local manufacturers to global trade.</li> <li>• Dispel misconceptions that commercial driving is a men-reserved occupation.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship</i></p>

		<p><i>Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p> <ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• finding confidence</li><li>• Self-awareness</li><li>• Exhibiting motivation</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, value leisure, rest, peace.</p>
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Content Standards	Learning Indicators and Pedagogical Exemplars with 21 <sup>st</sup> Century and GESI	Assessment
3.3.2.CS.1	3.3.2.LI.1	3.3.2.AS.1
Evaluate the tourism, trade and transport/communication sectors in Ghana	<p><b>Examine the role of tourism in the socio-economic development of Ghana and the challenges facing the tourism sector</b></p> <p><b>Collaborative Learning:</b> In GESI-responsive groups, research about the following;</p> <ul style="list-style-type: none"> <li>• The role of tourism in the socio-economic development of Ghana and the challenges facing the sector.</li> <li>• The role of trade in the socio-economic development of Ghana and the challenges facing the sector.</li> <li>• The role of transport/communication in the socio-economic development of Ghana and the challenges facing the sector.</li> </ul> <p>Write a report based on your findings Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b></p>
	3.3.2.LI.2	3.3.2.AS.2
	<p><b>Assess the role of trade in the socio-economic development of Ghana and the challenges facing the sector.</b></p> <p><b>Collaborative Learning:</b> In groups research about the following;</p> <ul style="list-style-type: none"> <li>• The role of tourism in the socio-economic development of Ghana and the challenges facing the sector.</li> <li>• The role of trade in the socio-economic development of Ghana and the challenges facing the sector.</li> <li>• The role of transport/communication in the socio-economic development of Ghana and the challenges facing the sector.</li> </ul> <p>Write a report based on your findings. In the groups, all Learners should be aware of the emotions of all members, especially the vulnerable ones.</p>	<p>Level 1 Recall Level 2 Skills of conceptual understanding Level 3 Strategic reasoning <b>Level 4 Extended critical thinking and reasoning</b></p>
3.3.2.LI.3	3.3.2.LI.3	3.3.2.AS.3
	<p><b>Examine the role of transport and communication in the socio-economic development of Ghana and the challenges facing the sector</b></p>	<p>Level 1 Recall Level 2 Skills of conceptual</p>

	<p><b>Project-based Learning:</b> In small GESI-responsive groups, discuss the following;</p> <ul style="list-style-type: none"> <li>• The role of tourism in the socio-economic development of Ghana and the challenges facing the sector.</li> <li>• The role of trade in the socio-economic development of Ghana and the challenges facing the sector.</li> <li>• The role of transport and communication in the socio-economic development of Ghana and the challenges facing the sector.</li> <li>• In groups, all Learners should be aware of the emotions of all members, especially the vulnerable ones.</li> </ul>	<p>understanding  <b>Level 3 Strategic reasoning</b>  Level 4 Extended critical thinking and reasoning</p>
<p><b>Teaching and Learning Resources</b></p>	<ul style="list-style-type: none"> <li>• Use maps</li> <li>• Pictures</li> <li>• Videos</li> </ul>	<ul style="list-style-type: none"> <li>• Statistical data and other learning resources showing tourism</li> <li>• Trade</li> <li>• Transport/communication activities in Ghana</li> </ul>

**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**   **3. ENVIRONMENTAL DEGRADATION**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.3.3.LO.1</p> <p>Analyse the sources of waste and effects of improper waste disposal in Ghana</p>	<p><b>Collaboration and information literacy skills</b> are acquired through working in groups and searching for information from different sources.</p> <p><b>Leadership skills</b> are developed as group leaders manage their members to execute the task given.</p> <p><b>Problem-solving and Lifelong learning:</b> Through searching for information from different sources on their own and discussing the effectiveness of the 3Rs in managing waste.</p> <p><b>Creativity and innovation skills</b> are developed through the creation of artefacts from waste</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Be sensitive and respect individuals' views on waste.</li> <li>• Interrogate stereotypes and biases about gender and the role men and women play in waste management.</li> <li>• Identify injustice, especially in recognition of the contributions of different groups and individuals to effective waste management at the home.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to be:</p>



		<ul style="list-style-type: none"><li>• Managing emotions and conflicts</li><li>• Showing empathy and cooperation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility, avoid littering; learn to separate wastes, environmental cleanliness.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
3.3.3.CS.1	3.3.3.LI.1	3.3.3.AS.1
Demonstrate skills in waste management in Ghana	<p><b>Discuss the sources of waste in your community and Ghana</b></p> <p><b>Inquiry-Based Learning:</b></p> <ul style="list-style-type: none"> <li>• In GESI responsive groups, visit the nearby community to identify various sources of waste generation.</li> <li>• Based on the visitation, write down the main and minor sources of waste generation within the local community and Ghana as a whole.</li> <li>• The emotions of approaching proficiency learners should not be override when they don't contribute to discussion as expected.</li> </ul>	<p>Level 1 Recall</p> <p><b>Level 2 Skills of conceptual understanding</b></p> <p>Level 3 Strategic reasoning</p> <p>Level 4 Extended critical thinking and reasoning</p>
	3.3.3.LI.2	3.3.3.AS.2
	<p><b>Discuss the effects of improper waste management or disposal in your community and Ghana</b></p> <p><b>Exploratory Learning:</b></p> <ul style="list-style-type: none"> <li>• Embark on visits to the community or observe pictures and videos on the effects of improper waste disposal.</li> <li>• Discuss the effects of poor waste management.</li> <li>• The emotions of approaching proficiency learners should not be override when they don't contribute to discussion as expected.</li> </ul>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
3.3.3.LI.3	3.3.3.AS.3	
<p><b>Examine appropriate methods of waste management in Ghana: Reduce, Reuse and Recycle (3Rs)</b></p> <p><b>Collaborative Learning:</b></p> <ul style="list-style-type: none"> <li>• Listen to a presentation by a resource person on ways of managing waste.</li> <li>• Classify the various ways of managing waste under the 3Rs (Reduce, Reuse and Recycle).</li> </ul> <p><b>Project-based Learning:</b></p> <ul style="list-style-type: none"> <li>• In groups use plastic or other waste products as the raw material to create any useful artefact.</li> <li>• Learners should be conscious of resolving interpersonal conflicts with each other if they arise in group. discussions</li> </ul>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>	

<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Use pictures, videos, field observation or any other sources in your communities showing the different sources and types of waste.</li> <li>• Use pictures, videos or any other sources showing links between waste and our health.</li> </ul>	<ul style="list-style-type: none"> <li>• Pictures, videos or any other sources showing waste sorting.</li> <li>• Pictures, videos or any other sources showing waste reuse and recycle.</li> </ul>
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**Subject**      **GEOGRAPHY**  
**Strand**        **3. HUMAN AND ENVIRONMENT**  
**Sub-Strand**   **4. ENVIRONMENTAL HAZARDS AND THEIR MANAGEMENT**

Learning Outcomes	21 <sup>st</sup> Century Skills and Competencies	GESI, SEL and Shared National Values
<p>3.3.4.LO.1</p> <p>Evaluate the management strategies for desert encroachment and landslides</p>	<p><b>Collaborative and communication skills</b> are developed through corporative discussion on the meaning, causes and effects of desert encroachment.</p> <p><b>Problem-solving and lifelong learning</b> as learners examine diverse ways of managing desert encroachment. As learners examine diverse ways of managing landslides.</p>	<p><b>GESI:</b> Learners having experienced a teaching approach that ensures Gender Equality and Social Inclusion, where they work with each other in an inclusive way; cross-sharing of knowledge and understanding among groups and individuals will lead them to:</p> <ul style="list-style-type: none"> <li>• Respect views of learners from different vegetation zones.</li> <li>• Examine and dispel misconceptions/ myths about people living in different vegetation zones.</li> <li>• Interrogate their stereotypes and biases about gender and the role men and women play in vegetation management.</li> </ul> <p><b>SEL:</b> Learners having experienced teaching and learning approaches that ensures the inclusion of Social Emotional Learning Competencies (<i>Self-Awareness, Self-Management, Social Awareness, Relationship Skills and Responsible decisions</i>) where they work with each other in an inclusive way; cross-sharing knowledge and understanding among groups and individuals lead them to be:</p> <ul style="list-style-type: none"> <li>• Managing emotions and conflicts</li> </ul>

		<ul style="list-style-type: none"><li>• Showing empathy and cooperation</li><li>• SMART goal setting</li></ul> <p><b>National Core Values:</b> Tolerance, friendliness, open mindedness, patience, hard work, humility; avoid deforestation, vegetation conservation, follow national building codes.</p>
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<b>Content Standards</b>	<b>Learning Indicators and Pedagogical Exemplars with 21<sup>st</sup> Century and GESI</b>	<b>Assessment</b>
3.3.4.CS.1	3.3.4.LI.1	3.3.4.AS.1
Demonstrate knowledge and skills for preventing or mitigating desert encroachment and landslides	<p><b>Examine ways of managing desert encroachment</b></p> <p><b>Talk for Learning:</b> In an interactive, GESI and different cultural background class discussion, explain the meaning, causes and effects of desert encroachment.</p> <p><b>Collaborative learning:</b></p> <ul style="list-style-type: none"> <li>• In the same task group work, explain ways by which desert encroachment can be minimised.</li> <li>• Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</li> </ul>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p><b>Level 3 Strategic reasoning</b></p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
	3.3.4.LI.2	3.3.4.AS.2
	<p><b>Examine measures for the prevention/mitigation of landslides</b></p> <p><b>Talk for Learning:</b></p> <ul style="list-style-type: none"> <li>• Using videos/pictures and other sources, discuss the meaning, causes and effects of landslides in small groups.</li> <li>• Learners should be able to manage their emotional reactions and behaviours using techniques such as mindfulness strategies, breathing, and self-talk.</li> </ul>	<p>Level 1 Recall</p> <p>Level 2 Skills of conceptual understanding</p> <p>Level 3 Strategic reasoning</p> <p><b>Level 4 Extended critical thinking and reasoning</b></p>
<b>Teaching and Learning Resources</b>	<ul style="list-style-type: none"> <li>• Use pictures, videos, maps and any other sources showing desert encroachment and landslides.</li> </ul>	