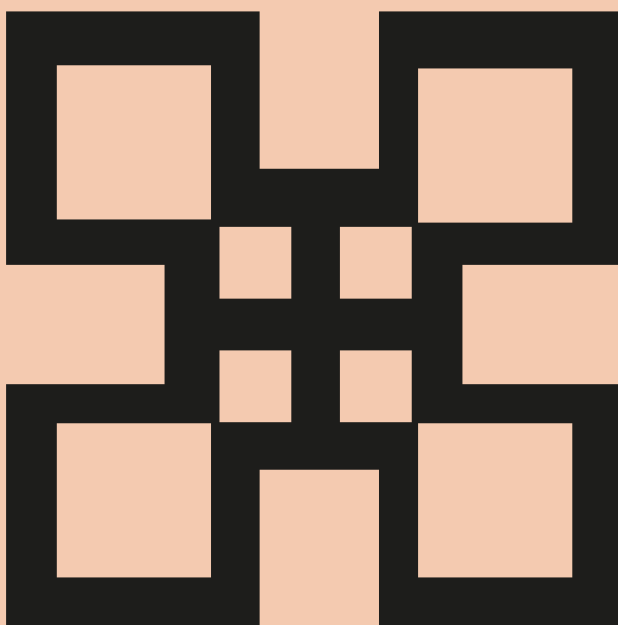


Professional Learning Community Handbook

Economics

Year Two



Ghana Education
Service (GES)



**Professional Learning
Community Handbook**

Economics

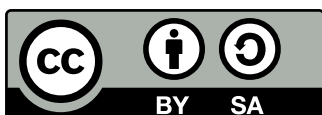
Year Two



REPUBLIC OF GHANA



mastercard
foundation



Published by the Ministry of Education, Ghana under Creative Commons Attribution 4.0 International License.

Contents

Foreword	v
Acknowledgements	vii
Links to APPs	xi
PLC Session 0: Introduction to the Year Two Professional Learning Community Handbook and the Subject Specific App	1
PLC SESSION 0.5: Using the Subject Specific App to deliver assessments at appropriate DoK levels	4
PLC Session 1: Tools in Economic Analysis – Words and Infographics	7
PLC Session 2: Preparing for Student Transcript Portal Assessment – Group Project	10
PLC Session 3: Preparing for Student Transcript Portal Assessment – Portfolio	13
PLC Session 4: Change in Demand vs. Change in Quantity Demanded	16
PLC Session 5: Equilibrium in Utility and Calculation of Marginal Utility, Total Utility and Average Utility	20
PLC Session 6: Preparing for Mid-Semester Examination	24
PLC Session 7: Time Periods and Method of Production	28
PLC Session 8: The Concept of Cost	32
PLC Session 9: The Concept of Revenue	36
PLC Session 10: Total, Average and Marginal Revenue Curves	40
PLC Session 11: Factors that affect the supply of a commodity	44
PLC Session 12: Preparing for End of Semester Examination	48
PLC Session 13: Definition and types of market structures	51
PLC Session 14: Preparing for Student Transcript Portal Assessment – Individual Project	55
PLC Session 15: Market Equilibrium and Determination of Equilibrium Price and Output	58

PLC Session 16: Effects of Changes in Fundamental Macroeconomic Variables on the Economy and Control Policies	62
PLC Session 17: Introduction to National Income	66
PLC Session 18: Preparing for Mid–Semester Examination	70
PLC Session 19: Reasons for Holding Money and the Role of Financial Institutions in an Economy	73
PLC Session 20: Principles, Types and Classification of Taxation	77
PLC Session 21: Advantages and Disadvantages of Taxation	81
PLC Session 22: Agriculture and Service Sectors; Challenges and Solutions	85
PLC Session 23: Industrial Sector; Challenges and Solutions	89
PLC Session 24: Preparing for End of Semester Examination	93
Appendix 1: Subject Specific App Teaching & Learning Apps – Issue Reporting Guide	96
Appendix 2: Learning Planner Template	101
Appendix 3: Teacher Lesson Observation Form	103
Appendix 4: How to check CPD Points and Training Records on Teacher Portal Ghana	109

Foreword

As Minister for Education, I am delighted to introduce this handbook on Professional Learning Communities (PLCs). The handbook provides practical guidance and resources for teachers to establish and sustain effective PLCs that will drive quality pedagogy and enhance learning outcomes.

Weekly Professional Learning Community (PLC) sessions are the backbone of this Government's commitment to continuous teacher development in every Senior High School. These PLC sessions enable teachers to come together to master the pedagogy, content and assessment needed to successfully implement Ghana's SHS curriculum.

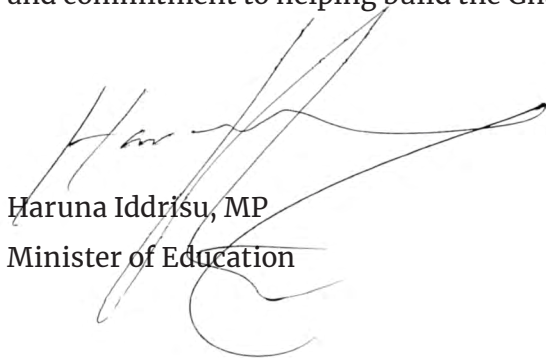
By fostering a culture of collaboration and continuous improvement through PLCs, teachers can enhance their understanding of the new SHS curriculum and effectively facilitate learning in the classroom. This will contribute to our country's resetting agenda by educating a generation of young people with the skills needed to progress to further studies, the world of work and adult life.

PLC sessions are critically important and should be treated with the utmost seriousness. Transforming our education system is a partnership between government, teachers, parents and learners. As teachers gain experience with the new curriculum and assessment regime, PLC sessions can also be tailored to discuss specific issues of concern as a group. It is important that teachers are heard and respected. We have listened to your concerns about PLCs and have factored this feedback into the new Year 2 Subject-Specific PLC Handbooks.

The Handbooks have been designed to be more flexible in structure than those for Year One. Each PLC Handbook is supported by a Subject-Specific App developed by the National Council for Curriculum and Assessment (NaCCA) linked to the revised curriculum. These Apps will help teachers to plan learning activities, assessments and differentiated learning. From our early interactions with teachers to develop and test these Apps we can see the level of excitement about their potential to save teachers time and improve their teaching and learning. These Ghanaian-owned Apps are the first of their kind at this scale anywhere in Africa, helping teachers save time and deliver lessons that truly meet the needs of every learner. I am confident that it will have a significant impact on our education system and ultimately benefit our students, teachers, and communities. All teachers are encouraged to embrace the principles and

practices outlined in this handbook and to work together to build strong, vibrant PLCs that promote enhanced learning outcomes.

I commend the authors and contributors for their tireless efforts in developing this valuable resource, which will enhance the quality of teaching and learning. Thank you to each one of you for your dedication and commitment to helping build the Ghana we want, together.

A handwritten signature in black ink, appearing to read 'Haruna Iddrisu', is written over a light blue rectangular background.

Haruna Iddrisu, MP
Minister of Education

Acknowledgements

Special thanks to Professor Samuel Ofori Bekoe, Director-General of the National Council for Curriculum and Assessment (NaCCA) and all who contributed to the successful writing of the Year Two Professional Learning Community Handbook.

The writing team was made up of the following members

NaCCA Team	
Name of Staff	Designation
Eric Amoah	Deputy Director-General, Technical Services
Ayuuba Sullivan	Senior Curriculum Development Officer
Stephen Acquah	Senior Curriculum Development Officer
Joseph Barwuah	Senior Instructional Resource Officer
Seth Nii Nartey	Corporate Affairs Officer
Alice Kuromah	Corporate Affairs Officer

	Subject	Name of Writer	Institution
1.	Additional Mathematics	Benedicta Ama Yekua Etuaful	Ogyeedom SHTS
2.	Agricultural Science	Issah Abubakari	Half-Assini SHS
3.	Agriculture	Prof Frederick Adzitey	University for Development Studies
4.	Arabic	Dr Mohammed Almu Mahaman	University for Development Studies
5.	Art and Design Foundation	Angela Owusu-Afriyie	Opoku Ware School
6.	Art and Design Studio	Benjamin Quarshie	Mampong Technical College of Education
7.	Automotive & Metal Technology	Kunkyuuri Philip	Kumasi SHTS

	Subject	Name of Writer	Institution
8.	Aviation and Aerospace Engineering	David Kofi Oppong	Kwame Nkrumah University of Science and Technology
9.	Biology	Jo-Ann Neequaye	Nyarkrom SHS
10.	Biomedical Science	Davidson N.K. Addo	
11.	Building Construction & Woodwork Technology	Isaac Buckman	Armed Forces SHS
12.	Business Management	Ansbert Avole Baba	Bolgatanga Senior High School, Winkogo
13.	Chemistry	Michael Amissah	St. Augustine's College
14.	Clothing and Textiles	Rev. Sr. Jusinta Kwakyewaa	St. Francis Senior High Technical School
15.	Computing	Osei Amankwa Gyampo	Wesley Girls SHS, Kumasi
16.	Design and Communication Technology	Henry Angmor Mensah	Anglican Senior High School, Kumasi
17.	Economics	Salitsi Freeman Etornam	Anlo Senior High School
18.	Electrical & Electronics Technology	Gilbert S. Odjamgba	Ziavi Senior High Technical School
19.	Engineering	Daniel Agbogbo	Kwabeng Anglican Senior High School
20.	English Language	Frico Hawa Belinda	Vittin SHS, Tamale
21.	Food and Nutrition	Ama Achiaa Afriyie	St Louis Senior High School

	Subject	Name of Writer	Institution
22.	French	Sylvanus Exornam Yao Doe	Agate Senior High School
23.	General Science	Robert Arhin	SDA SHS, Akyim Sekyere
24.	Geography	Prof Ebenezer Owusu Sekyere	University for Development Studies
25.	Ghanaian Language	Ebenezer Agyemang	Opoku Ware School
26.	Government	Josephine Gbagbo	Ngleshie Amanfrom SHS
27.	History	Prince Essiaw	Enchi College of Education
28.	Information Communication Technology	Raphael Senyo Dordoe	Ziavi Senior High Technical School
29.	Islamic Religious Studies	Karibu Soumana	Nmanwora Community Senior High School
30.	Literature-in-English	Blessington Dzah	Ziavi Senior High Technical School
31.	Management in Living	Grace Annagmeng Mwini	Tumu College of Education
32.	Manufacturing Engineering	Benjamin Atribawuni Asaaga	KNUST
33.	Mathematics	Collins Kofi Annan	Mando Senior High School
34.	Music	Prof. Emmanuel Obed Acquah	University of Education Winneba
35.	Performing Arts	Christopher Ampomah Mensah	Bolgatanga SHS, Winkogo
36.	Physical Education and Health (Core)	Ebenezer Ewiah-Quarm	Nkroful Agric Senior High School

Subject		Name of Writer	Institution
37.	Physical Education and Health (Elective)	Evans Asare Yeboah	Adisadel College
38.	Physics	Anum–Prempeh Gordon	Mfantsipim School
39.	Religious and Moral Education	Anthony Mensah	Abetifi College of Education
40.	Robotics	Isaac Nzoley	Wesley Girls High School
41.	Social Studies	Jemima Ayensu	Holy Child School
42.		Hadisa Esun Afful	Mozano College of Music
43.	Spanish	Christina Apretwum	University of Media, Art and Communication
44.	Technical Support	Eric Abban	Mt. Mary College of Education
45.		Edward Mills Dadson	
46.		Benjamin Sundeme	St. Ambrose College of Education
47.		Jennifer Fafa Narh	
48.		Perfect Quarshie	Mawuko Girls SHS
49.	Ghana Education Service	Faustina Graham	

Links to APPs

Year One App



<https://www.playlab.ai/project/cmd94ee7j05skgnouk2rvfvyg>

Year Two App



<https://www.playlab.ai/project/cme6gikat0cg8m50ubv2or1xz>

PLC Session 0: Introduction to the Year Two Professional Learning Community Handbook and the Subject Specific App

1.0 Introduction and Purpose of the Handbook (15 minutes)

The purpose of the Year Two Professional Learning Community (PLC) Handbook is to support teachers to effectively deliver the new Senior High School (SHS) curriculum. This Handbook is accompanied by a Subject Specific App tailored to SHS curriculum. The App is designed to assist teachers with lesson planning, delivery and assessment. The Subject Specific App uses information directly from the following materials:

1. Curriculum
2. Teacher Manual
3. Learner Materials
4. Vision and Philosophy of the SHS curriculum
5. 21st century skills and competencies
6. National Teachers' Standards
7. West African Examinations Council Scheme of Assessment and Detailed Syllabus
8. Learning Planning Template
9. Teacher Assessment Manual and Toolkit
10. Socio Emotional Learning
11. National Values
12. Gender Equality and Social Inclusion (GESI), etc.

Learning Outcome (LO): To explore how the Subject Specific App can assist teachers with lesson planning, delivery and assessment (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Use the Subject Specific App to explore the Year Two Curriculum Materials (Teacher Manual and Learner Materials)

Learning Indicator (LI) 2: Discuss the advantages and disadvantages of using the Subject Specific App to design lessons and assessment strategies.

2.0 Exploring the Subject Specific App (65 minutes)

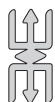


2.1 Scan the QR Code or use the link to access your Subject Specific App – <https://www.playlab.ai/project/cme6gikat0cg8m50ubv2or1xz>

2.2 Have a chat with the Subject Specific App (NTS 3j).

E.g.

- a. Select a section and the number of lessons you have in a week to start the App*
- b. Provide information about your class. For instance, the number of learners in your class, etc.*
- c. Select a week you are interested in and continue chatting with your App*
- d. Refer to your Teacher Manual and confirm the information provided by the App or otherwise*



Note

Always refer to your Teacher Manual to confirm the information the App provides.

2.3 Explore the following key areas using the App (NTS 2b, 2c, 2e and 3a–3q)

E.g.

a. Learning activities

I have a 60 minute lesson in a rural farming community in Lawra without enough tables and chairs. I can have my lesson outside the classroom if possible.

b. Assessments

Based on the recommended assessments for the week how can I assess my learners at level 2 at the end of the lesson. I want to give one question during the lesson and one at the end as homework

c. Differentiation strategies

There are two learners in wheelchairs. Another one cannot hear unless you speak very loudly. Finally, 5 learners are comfortable in the local language than in English. How can they be catered for in the lesson and assessment?

Hint

Remember to ask your App to help you add 21st Century Skills, National Values, GESI and SEL to your learning activities, assessment, etc., where applicable.

2.4 Share your experience with the larger group (NTS 3j).

- a.** two things you learnt using the App and how you plan to apply them.
- b.** two advantages of using the App
- c.** two disadvantages of using the App without the appropriate curriculum materials (e.g. Teacher Manual, etc.)

3.0 Reflection**3.1** Reflect and share your views on the session (NTS1a, 1b).**3.2** Remember to read PLC Session 0.5 and bring along your laptop in preparation for next week's session.

PLC SESSION 0.5: Using the Subject Specific App to deliver assessments at appropriate DoK levels

1.0 Introduction (10 minutes)

1.1 Read and discuss the purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session

Purpose: The purpose of this session is to refresh our knowledge and understanding of assessment in the SHS curriculum. WAEC's visits to schools show that teachers are generally doing well with setting assessment tasks at DoK Levels 1 and 2 but there are issues with Levels 3 and 4. This session will look at how the subject specific App can assist teachers in developing assessments at all DoK Levels.

Learning Outcome (LO): To strengthen teachers' skills and competencies in developing assessment tasks and items to reflect all the DoK Levels (NTS 3k, 3o-3p).

Learning Indicator (LI) 1: Use the subject specific App to develop assessments linked to the learning indicators and the required DoK levels.

Learning Indicator (LI) 2: Use the subject specific App to review existing assessments to check whether they are linked to the required Learning Indicators and DoK levels.

2.0 Planning and Delivering of Assessment using the Subject Specific App (65 minutes)

2.1 Open your App and have a chat with it.

E.g.

- a. *Select a section and the number of lessons you have in a week to start the App*
- b. *Provide information about your class. For instance, the number of learners in your class, etc.*

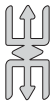
- c. *Select a week you are interested in and continue chatting with your App*
- d. *Refer to your Teacher Manual and confirm the information provided by the App or otherwise.*

2.2 Explore assessment using the App (NTS 3h, 3j and 3o–3q)

E.g.

Select Assessment

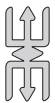
- a. *Look at the LIs for the week and select the appropriate DoK Level or Levels required for the week's lesson. For instance, 'the LI requires modelling, I would like to assess at level 3'*
- b. *Review the responses on the formats from your App, select any that meets your needs or continue chatting with your App to provide other assessment formats.*
- c. *Continue chatting with your App, for instance*
 - i. *'suggest 10 scenario based MCQs'*
 - ii. *'suggest level 3 task taking into consideration the learning activities and differentiation'*
 - iii. *Generate marking scheme for the task and add an explanation why an option is the right answer*



Note

Check that the MCQs are arranged alphabetically, vertically and the options are of similar length

- d. *Now repeat the process for different assessment strategies, for instance*
 - i. *Essay questions at level 3*
 - ii. *Case study questions at level 4*
 - iii. *3 week project task at level 4, etc.*



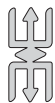
Note

You may select a different section or week for Activity 2.2d

2.3 Use the subject specific App to review the task or items you developed by having a chat with the App to provide justifications as to why the task is at DoK level 3 or 4 (NTS 3j, 3k, 3m 3o and 3p–3q).

E.g.

Explain why the tasks or items are at DoK level 3.

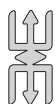


Note

You may repeat this for DoK levels 1, 2 or 4.

3.0 Using your subject specific App to explore one of the key assessment modes

- 3.1** Identify and select an assessment mode you found challenging in the last academic year and explore with your subject specific App how to use this assessment strategy effectively in your lesson delivery (NTS 3k).



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks.
- ii. Remember to ask your App to help you add 21st Century Skills, National Values, GESI and SEL to your learning activities, assessment, etc., where applicable.

- 3.2** Share your experience with the larger group (NTS 3j).
- a. two things you learnt using the App in developing assessments
 - b. how you plan to apply the experiences
 - c. any challenges you faced in using the App to develop assessments and how you addressed them

4.0 Reflection (15 minutes)

- 4.1** Reflect and share your views on the session (NTS 1a, 1b)

- 4.2** Remember to

- a. read PLC Session 1, Teacher Manual and related Learner Material (NTS 3a).
- b. Bring along your laptop, Teacher Manual and PLC Handbook on Week 1 in preparation for the next session (NTS 3a).

PLC Session 1: Tools in Economic Analysis – Words and Infographics

1.0 Introduction (10 minutes)

Read and discuss the purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to populate a learning planner for Week 1 on *Tools in Economic Analysis – Words and Infographics* with the needed areas and use the subject-specific App to review the completed learning plan.

Learning Outcome (LO): To populate the learning planner on *Tools in Economic Analysis – Words and Infographics* with essential questions, key notes on differentiation, learning activities and key assessments and to use the subject-specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner on week 1 using the subject specific App.

Learning Indicator (LI) 2: Enact an activity based on your learning plan.

2.0 Planning and Reviewing of Learning Plan (50 minutes)

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 1 on *Tools in Economic Analysis – Words and Infographics* (NTS 3a–3q).

E.g.

i. Learning activities

Design collaborative learning activities for Week 1 on Tools in Economic Analysis – Words and Infographics using Building on What Others Say pedagogy for 2 sessions (2 hours each) with 50 learners in mixed-ability groups.

ii. Assessment tasks

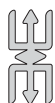
Create 2 assessment tasks for Week 1 on Tools in Economic Analysis – Words and Infographics that cover DoK levels 1–3, focusing on economic vocabulary usage and infographic creation with a clear rubric for scoring.

iii. Differentiation

2 Suggest easy-to-use differentiation strategies for Week 1 on Tools in Economic Analysis – Words and Infographics to support 8 AP learners, 17 P learners, and 25 HP learners working in mixed-ability groups of 6–7 learners each.

iv. Essential questions

Recommend 3 essential questions that help me teach the lessons in Week 1 on Tools in Economic Analysis – Words and Infographics, focusing on economic vocabulary and visual communication of economic concepts.



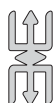
Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks.
- ii. Transfer the information from your SS App into your learning planner template to complete your plans. Click the link or scan the QR code to download the template.
<https://curriculumresources.edu.gh/wp-content/uploads/2025/09/Year-Two-Lesson-Planner-Template-20.docx>

- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

3.0 Enactment (20 minutes)

- 3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).
- 3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

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

4.3 Remember to:

- a.** Read PLC Session 2, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 2: Preparing for Student Transcript Portal Assessment – Group Project

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 1 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while populating your learning plan for week 2 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to use the subject-specific App to

- 1. review the completed learning plan for week 2
- 2. prepare assessment tasks and rubrics for Group Project

Learning Outcome (LO): To review the learning plan for week 2 and address any challenges in planning and developing assessment tasks for the Group Project (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Review the learning plan and address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Discuss, develop and review assessment tasks with rubrics for the Group Project.

2.0 Reviewing the Learning Plan (20 minutes)

- 2.1 Upload your completed learning plan into the subject-specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Learning activities

Attached is a learning plan for week 2. My class has 25HP, 17P, and 8AP learners. Review the learning activities in the plan in alignment with the teacher manual and suggest areas for improvement to suit the learners' characteristics in the class, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

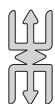
- a) essential questions
- b) differentiation
- c) assessment tasks, etc.

3.0 Prepare to Assign, Assess and Record for the Student Transcript Portal (50 minutes)

- 3.1** Refer to your Teacher Manual for the key assessment to be recorded in the Student Transcript Portal and have a chat with the subject-specific App to review or develop your assessment tasks and mark schemes/rubrics (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

With a class of 50 learners, having 25HP, 17P, and 8AP, suggest a group project work, similar to the one in Appendix A of the Teacher Manual. Suggest how groups should be formed to ensure fair distribution across groups.



Note

One prompt may not be enough for the App to provide all that you may need for the tasks.

- 3.2** Have a chat with your App to verify the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the suggestions to refine the assessment tasks (NTS 1a, 2b, 2c and 3e–3q). In doing this activity, consider:

E.g.

i. Task

Does the group project task accommodate different levels of DoK, ensuring fairness among the learners and groups I have in the class?

ii. Mark scheme and score distribution

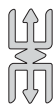
How did the mark scheme cater for varied levels of performance? Recommend an alternative rubric/mark scheme if the current one lacks differentiation.

iii. Resources needed for assessment administration

Recommend an appropriate group project administration guide to support this work.

iv. How to provide feedback

Suggest an appropriate feedback mechanism that can support the diverse needs of learners.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 2 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
- b.** Read PLC Session 3, Teacher Manual and related Learner Material (NTS 3a).
- c.** Bring along your Laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- d.** Identify areas you found challenging in your teaching and administration of the assessment for discussion during the next session.

PLC Session 3: Preparing for Student Transcript Portal Assessment – Portfolio

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 2 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while populating your learning plan for week 3 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to use the subject-specific App to

- 1. review the completed learning plan for week 3
- 2. prepare assessment tasks and rubrics for Individual Portfolio

Learning Outcome (LO): To review the learning plan for week 3 and address any challenges in planning and developing assessment tasks for the Group Project (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Review the learning plan and address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Discuss, develop and review assessment tasks with rubrics for the individual portfolio.

2.0 Reviewing the Learning Plan (20 minutes)

- 2.1 Upload your completed learning plan into the subject-specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Essential questions

Refer to the essential questions in the attached learning plan, and suggest alternatives for questions that do not relate to the week's content and indicator.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

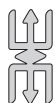
- a) learning activities
- b) differentiation
- c) assessment tasks, etc.

3.0 Prepare to Assign, Assess and Record for the Student Transcript Portal (50 minutes)

- 3.1** Refer to your Teacher Manual for the key assessment to be recorded in the Student Transcript Portal and have a chat with the subject-specific App to review or develop your assessment tasks and mark schemes/rubrics (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

Refer to the sample individual portfolio assessment in Appendix B and suggest a similar portfolio assessment for my learners. Include the rubric/mark scheme. Review the attached individual portfolio assessment and suggest areas for improvement to meet a 21st-century portfolio task.



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

- 3.2** Have a chat with your App to verify the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the suggestions to refine the assessment tasks (NTS 1a, 2b, 2c and 3e–3q). In doing this activity, consider:

E.g.

i. Task

Does the individual portfolio task reflect a 21st-century portfolio? Suggest 2 additional components that can make the task meet modern standards.

ii. Mark scheme and score distribution

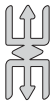
Does the mark scheme cater for varied levels of performance? Recommend an alternative rubric/mark scheme if the current one does not consider different performance levels.

iii. Resources needed for assessment administration

Suggest appropriate intervals for reviewing the portfolio assessment, and any additional support the teacher can give to learners to achieve a successful portfolio.

iv. How to provide feedback

Suggest appropriate feedback mechanisms that can support diverse learner needs.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 3 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
- b.** Read PLC Session 4, Teacher Manual and related Learner Material (NTS 3a).
- c.** Bring along your Laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- d.** Identify areas you found challenging in your teaching and administration of the assessment for discussion during the next session.

PLC Session 4: Change in Demand vs. Change in Quantity Demanded

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 3
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 4?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 4 on *Change in demand vs. change in quantity demanded* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 4 on *Change in demand vs. change in quantity demanded* (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest 3 essential questions that help me teach the lessons in Week 4 on Change in Demand vs. Change in Quantity Demanded, focusing on helping learners differentiate between the two concepts using graphical representations and real-world applications.

ii. Differentiation

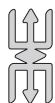
Suggest differentiation strategies for Week 4 on Change in Demand vs. Change in Quantity Demanded to support 8 AP learners, 17 P learners, and 25 HP learners working in mixed-ability groups, ensuring learners can explain differences using everyday life experiences and create graphical illustrations.

iii. Learning activities

Design collaborative learning activities for Week 4 on Change in Demand vs. Change in Quantity Demanded using Building on What Others Say pedagogy for 2 sessions (2 hours each) with 50 learners in mixed-ability groups. Session 1 should focus on Change in Quantity Demanded and Session 2 should focus on Change in Demand.

iv. Assessment tasks

Create assessment tasks for Week 4 on Change in Demand vs. Change in Quantity Demanded that cover DoK level 3 and DoK level 4, with graphical illustrations and real-world scenarios, focusing on Group Presentation as the recommended assessment mode.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e–3q).

E.g.

Differentiation

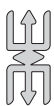
I have 50 learners, 25 are highly proficient, 17 are proficient, and 8 are approaching proficiency. Review my learning plan on Change in Demand vs. Change in Quantity Demanded in alignment with the teacher manual, and suggest areas for improvement to suit differentiation, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) learning activities
- c) assessment tasks, etc.

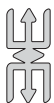
**Note**

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- 2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

- 3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).
- 3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).

**Note**

You may record the enacted activity.

4.0 Reflection (10 minutes)

- 4.1 Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 4 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 5, Teacher Manual and related Learner Material (NTS 3a).
 - b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 5: Equilibrium in Utility and Calculation of Marginal Utility, Total Utility and Average Utility

1.0 Introduction (5 minutes)

- 1.1** Share one thing you applied in your classroom based on PLC Session 4
- the challenges you faced
 - how you addressed them
- 1.2** Have you developed your learning plan for week 5?
- If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 5 on *Equilibrium in Utility and Calculation of Marginal Utility, Total Utility, and Average Utility* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 5 on Equilibrium in Utility and Calculation of Marginal Utility, Total Utility, and Average Utility (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest 3 essential questions that can help teach the lesson in Week 5 on Equilibrium in Utility and Calculation of Marginal Utility, Total Utility, and Average Utility, focusing on consumer rational behaviour, utility maximisation, and practical calculation of utility measures using everyday consumption examples.

ii. Differentiation

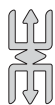
Suggest differentiation strategies for Week 5 on Equilibrium in Utility and Calculation of TU, MU and AU to support 8 AP learners who need guidance with simple additions to calculate Total Utility, 17 P learners who can calculate TU and should be stretched to calculate AU and MU, and 25 HP learners who should engage in critical thinking to demonstrate consumer equilibrium.

iii. Learning activities

Design collaborative learning activities for Week 5 on Equilibrium in Utility and Calculation of Marginal Utility, Total Utility, and Average Utility using Talk for Learning pedagogy for 1 session (2 hours). 50 learners in mixed-ability groups,

iv. Assessment tasks

Create two assessment tasks for Week 5 on Equilibrium in Utility and Calculation of TU, MU, and AU that cover DoK level 3 and DoK level 4, focusing on Self-Assessment as the recommended assessment mode with real-world examples and algebraic analysis of consumer equilibrium.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Learning activities

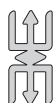
Review the learning activities in the attached learning plan on Equilibrium in Utility and Calculation of TU, MU, and AU in alignment with the teacher manual, and suggest areas for improvement to help my learners understand the concept etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) differentiation
- c) assessment tasks, etc.



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks

- ii. Transfer the information from your SS App into your learning planner template to complete your plans*
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.*

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

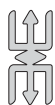
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c-3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 5 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Read PLC Session 6, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 6: Preparing for Mid-Semester Examination

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 5 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while populating your learning plan for week 6 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to use the subject-specific App to

1. review the completed learning plan for week 6
2. prepare assessment tasks and rubrics for mid-semester examination

Learning Outcome (LO): To review the learning plan for week 6 and address any challenges in planning and developing assessment tasks for the mid-semester examination (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Review the learning plan and address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Discuss, develop and review assessment tasks with rubrics for the mid-semester examination.

2.0 Reviewing the Learning Plan (20 minutes)

- 2.1 Upload your learning plan into the subject-specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Learning activities

I have 50 learners, 25 are highly proficient, 17 are proficient, and 8 are approaching proficiency. Review the learning activities in my learning plan on 'Sketch the utility curves (Total, Marginal and Average)' in line with the teacher manual and suggest areas for improvement to suit the learner characteristics I have.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) differentiation
- c) assessment tasks, etc.

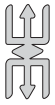
3.0 Prepare for Mid-Semester Examination (50 minutes)

- 3.1** Refer to your Teacher Manual for the format of the mid-semester examination and use the subject-specific App to review or develop your assessment tasks, mark schemes/rubrics, etc. (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

The mid-semester examination guidelines recommend that the examination should cover indicators in weeks 1 to 5. I have taught only Weeks 1 to 4. Create a TOS to cover weeks 1 – 4 only (Type of Question, Dok levels 1, 2, and 3, with Totals on X-axis), (Weeks and LIs on Y-axis), following the 30%, 40%, 30% distribution for 32 items (30 MCQs and 2 Essays).

Use the TOS for weeks 1–4 (30%, 40%, 30% distribution) to craft the Mid-semester Exam covering Paper 2 and Paper 1, 32 questions in all. Paper 2 consists of 2 essay-type questions; learners answer only one for 20 marks, and Paper 1 consists of 30 multiple-choice questions, all in 1 hour 10 minutes. Add a mark scheme and a simple administration guide.



Note

In preparing for mid-semester examination, one prompt may not be enough for the App to provide all you need (Dok levels, structure, distribution across Dok levels, etc.)

- 3.2** Have a chat with your App to review the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the review to refine the responses to complete the set questions (NTS 1a, 2b, 2c and 3e–3q). In doing this activity, consider:

E.g.

- i. Whether the assessment tasks generated follow 30%, 40%, 30% Dok distribution**

Does the percentage allocation used fall within the 30, 40, 30 DoK distribution? If it is inconsistent, recommend the Dok levels that need appropriate revision.

- ii. Mark scheme and score distribution**

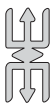
Are the answers correct as required by the questions, and are the answer keys evenly distributed to avoid guessing by the learner? Recommend the necessary amendments for items that need revision.

- iii. Resources needed for assessment administration**

I do not have printing materials for this exam. What materials or means can you recommend to help me conduct this exam successfully?

- iv. How to provide feedback**

Offer simple and practical tips on giving targeted feedback to learners after the mid-semester examination.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

- 4.1 Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 6 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Mark, record and upload your learners' assessment scores in the Student Transcript Portal.
 - b. Read PLC Session 7, Teacher Manual and related Learner Material (NTS 3a).
 - c. Bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - d. Identify areas you found challenging in your planning and administering of the assessment for discussion during the next session.

PLC Session 7: Time Periods and Method of Production

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 6
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 7?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 7 on *Time Periods and Method of Production* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 7 on *Time Periods and Method of Production* (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest three essential questions that can help me teach the lessons in Week 7 on Time Periods and Methods of Production, focusing on production time periods, relationships among Total Product, Marginal Product, and Average Product, including their stages, and the choice between labour-intensive and capital-intensive production methods using local Ghanaian examples.

ii. Differentiation

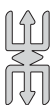
Suggest differentiation strategies for Week 7 on Time Periods and Method of Production to support 8 AP learners who need extra time and peer support for calculating TP, MP and AP, 17 P learners who should be stretched to sketch the TP, MP and AP curves, and 25 HP learners who should design critical thinking exercises to explain the stages of production and differentiate production methods using real-world examples.

iii. Learning activities

Design collaborative learning activities for Week 7 on Time Periods and Method of Production using ‘Problem-Based Learning’ and ‘Experiential Learning’ pedagogies for 2 sessions (2 hours each) with 50 learners in mixed-ability groups. Session 1 should combine time periods in production with calculating Total Product (TP), Marginal Product (MP), and Average Product (AP). Session 2 should focus on differentiating between labour-intensive and capital-intensive methods of production.

iv. Assessment tasks

Create two assessment tasks for Week 7 on Time Periods and Method of Production that cover DoK levels 1–3, focusing on Computational Task as the recommended assessment mode. These tasks should include calculations of TP, MP, AP, sketching curves, explaining production stages, and differentiating production methods using real-world scenarios.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks

- ii. *Transfer the information from your SS App into your learning planner template to complete your plans.*
- iii. *Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.*

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e–3q).

E.g.

Assessment tasks

Review the attached learning plan for Week 7 on ‘Time Periods and Method of Production’ and check for the linkage between the week’s formative assessment tasks and the content covered. Recommend alternative assessment tasks that match the content if the current one is inappropriate, etc.

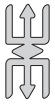
Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions

- b) learning activities
- c) differentiation, etc.



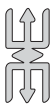
Note

- i. *Chatting once may not be enough for the App to provide all that you may need for the tasks*
- ii. *Transfer the information from your SS App into your learning planner template to complete your plans*
- iii. *Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.*

- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- 2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

- 3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).
- 3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

- 4.1 Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 7 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 8, Teacher Manual and related Learner Material (NTS 3a).
 - b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 8: The Concept of Cost

1.0 Introduction (5 minutes)

- 1.1** Share one thing you applied in your classroom based on PLC Session 7
- the challenges you faced
 - how you addressed them
- 1.2** Have you developed your learning plan for week 8?
- If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 8 on *The Concept of Cost* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 8 on *The Concept of Cost* (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

*E.g.***i. Essential questions**

Suggest three essential questions that help me teach the lessons in Week 8 on The Concept of Cost, focusing on understanding different types of costs in business operations, mathematical relationships between various cost measures, and how cost analysis helps firms make production decisions using local Ghanaian business examples like school canteens or local bakeries.

ii. Differentiation

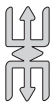
Recommend differentiation strategies for Week 8 on The Concept of Cost to support 8 AP learners who need guidance with smaller manageable steps to identify FC, VC and TC items, 17 P learners who should be encouraged to explain cost concepts using real-world examples, and 25 HP learners who should design critical thinking exercises to sketch cost curves and explain relationships among various cost curves.

iii. Learning activities

Design collaborative learning activities for Week 8 on The Concept of Cost using 'Experiential Learning' pedagogy for 2 sessions (2 hours each) with 50 learners in mixed-ability groups. Session 1 should focus on understanding Fixed Costs, Variable Costs, and Total Costs with real-world identification. Session 2 should focus on calculating Total Cost, Average Cost, and Marginal Cost with graphical representations.

iv. Assessment tasks

Create 1 assessment task for Week 8 on The Concept of Cost that covers DoK levels 1, 3, and 4, focusing on Essay as the recommended assessment mode with identification of cost components, differentiation among cost types, and sketching cost curves using real-world examples from school operations or local businesses.

**Note**

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Learning activities

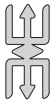
Review the attached learning plan for Week 8 on 'The Concept of Cost' and check for linkage between the week's activities and the content in the Teacher Manual. Recommend a supplementary activity that will cover any missing content area, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) assessment tasks
- c) differentiation, etc.

**Note**

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

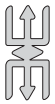
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).

**Note**

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 8 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a. Read PLC Session 9, Teacher Manual and related Learner Material (NTS 3a).
- b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c. Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 9: The Concept of Revenue

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 8
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 9?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 9 on *The Concept of Revenue* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 9 on The Concept of Revenue (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

*E.g.***i. Essential questions**

Suggest 3 essential questions that help me teach the lessons in Week 9 on The Concept of Revenue, focusing on revenue generation in business operations, and practical applications using local business examples from school canteens.

ii. Differentiation

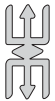
Suggest differentiation strategies for Week 9 on The Concept of Revenue to support 8 AP learners who need extra time and peer support for calculating TR, 17 P learners who should calculate TR and be stretched to calculate AR, and 25 HP learners who should design critical thinking exercises to calculate MR and differentiate revenue from profit.

iii. Learning activities

Design collaborative learning activities for Week 9 on The Concept of Revenue using 'Experiential Learning' pedagogy for 2 sessions (2 hours each) with 50 learners in mixed-ability groups.

iv. Assessment tasks

Develop 2 assessment tasks for Week 9 on The Concept of Revenue that cover DoK levels 1–3, focusing on Mini-Project as the recommended assessment mode.

**Note**

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT

Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e–3q).

E.g.

Essential questions

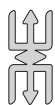
Review the attached learning plan for Week 9 on ‘The Concept of Revenue’ and check if the essential questions relate and draw relevance to the content, and suggest appropriate modifications, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) learning activities
- b) assessment tasks
- c) differentiation, etc.



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

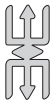
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 9 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Read PLC Session 10, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 10: Total, Average and Marginal Revenue Curves

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 9
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 10?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 10 on *Total, Average and Marginal Revenue Curves* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 10 on Total, Average and Marginal Revenue Curves (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Give 3 key essential questions for teaching Week 10 on Revenue Curves Representation, emphasising visual representation of revenue relationships, curve interpretation skills, and connecting graphical analysis to real business decision-making using familiar local examples.

ii. Differentiation

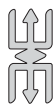
Design simple differentiation approaches for Week 10 on Revenue Curves Representation for 8 AP learners needing step-by-step curve drawing guidance, 17 P learners who should sketch curves and explain basic relationships, and 25 HP learners who should analyse complex curve interactions and business implications.

iii. Learning activities

Create hands-on learning activities for Week 10 on Revenue Curves Representation using 'Talk for Learning' and 'Experiential Learning' approaches for 1 session (2 hours) with 50 learners in mixed groups.

iv. Assessment tasks

Develop 2 assessment tasks for Week 10 on Revenue Curves Representation covering DoK levels 2–4, using Short Quiz as the assessment mode.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT

Move to Activity 3.0



2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Assessment tasks

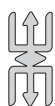
Review the attached learning plan for Week 10 on 'Total, Average and Marginal Revenue Curves' and confirm whether the assessment tasks align with the recommended DoK levels in the Teacher Manual and suggest appropriate modifications, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) learning activities
- b) essential questions
- c) differentiation, etc.



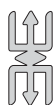
Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- 2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

- 3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).
- 3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

- 4.1 Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 10 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 11, Teacher Manual and related Learner Material (NTS 3a).
 - b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 11: Factors that affect the supply of a commodity

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 10
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 11?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 11 on *Factors that affect the supply of a commodity* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 11 on Factors that affect the supply of a commodity (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Give 3 guiding questions for Week 11 on Factors Affecting Supply, focusing on price-supply relationships, non-price factor influences, and practical applications in local production and business contexts using familiar Ghanaian examples like farming or small-scale manufacturing.

ii. Differentiation

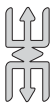
Plan differentiation strategies for Week 11 on Factors Affecting Supply, supporting 8 AP learners who need guided identification of supply factors, 17 P learners who should explain factor effects on supply, and 25 HP learners who should analyse multiple factor interactions and their combined effects on supply decisions.

iii. Learning activities

Develop interactive learning activities for Week 11 on Factors Affecting Supply using 'Building on What Others Say' pedagogy for 2 sessions (2 hours each) with 50 learners in mixed groups. Session 1 should explore how price affects supply using local market examples. Session 2 should examine non-price factors affecting supply through real-world business scenarios.

iv. Assessment tasks

Design 2 assessment tasks for Week 11 on Factors Affecting Supply covering DoK levels 1-2 (Reproduction/Recall and Skills understanding), using Peer Assessment as the assessment mode.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Differentiation

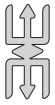
Review the attached learning plan for Week 11 on Factors that affect the supply of a commodity and check the appropriateness of the differentiation strategies used in the lesson, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) learning activities
- b) essential questions
- c) assessment tasks, etc.



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

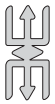
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 11 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a. Read PLC Session 12, Teacher Manual and related Learner Material (NTS 3a).
- b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c. Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 12: Preparing for End of Semester Examination

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 11 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while pre-populating your learning plan for week 12 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to use the subject-specific App to

1. review the completed learning plan for week 12
2. prepare assessment tasks and rubrics for end of semester examination

Learning Outcome (LO): To review the learning plan for week 12 and address any challenges in planning and developing assessment tasks for the end of semester examination (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Review the learning plan and address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Discuss, develop and review assessment tasks with rubrics for the end of semester examination.

2.0 Reviewing the Learning Plan (20 minutes)

- 2.1 Upload your learning plan into the subject-specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Essential question

Review my attached learning plan for Week 12, on the indicator “Differentiate between change in quantity supplied and change in supply”. How relevant are my essential questions in achieving the Learning Indicator for week 12? Suggest a replacement for any of the essential questions that do not directly align or relate to the indicator.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

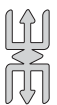
- a) differentiation
- b) learning activities
- c) assessment tasks, etc.

3.0 Prepare for End of Semester Examination (50 minutes)

- 3.1** Refer to your Teacher Manual for the format of the end of semester examination and use the subject-specific App to review or develop your assessment tasks, mark schemes/rubrics, etc. (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

The Teacher Manual recommends that the end of semester examination should cover learning indicators in weeks 1 to 11. Refer to the TOS structure and Examination Guidelines and write the items for the exam. Options for MCQ should be equal in word count/length. Provide the final version of the MCQ items, essay, and their mark scheme/rubric.



Note

In preparing for end of semester examination, one prompt may not be enough for the App to provide all you need (Dok levels, structure, distribution across Dok levels) etc.

- 3.2** Have a chat with your App to review the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the review to refine the responses to complete the set questions (NTS 1a, 2b, 2c and 3e–3q). In doing this activity, consider:

E.g.

i. Whether the assessment tasks generated follow 30%, 40%, 30% Dok distribution

Confirm whether the assessment tasks/items meet the acceptable Dok categorisation of 30%, 40%, 30% distribution. Identify items that need to be reviewed for the TOS to meet an appreciable Dok expectation for the exam.

ii. Mark scheme and score distribution

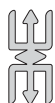
Analyse the mark scheme for any biases in the answer distribution. Suggest items that need to be reviewed to have a fair distribution.

iii. Resources needed for assessment administration

My resources for this exam include printed question paper, scannable answer sheets. Recommend ways I could administer this exam to avoid malpractices.

iv. How to provide feedback

Offer a simple suggestion on giving appropriate feedback to learners after this examination.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 12 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Mark, record and upload your learners' assessment scores in the Student Transcript Portal.
- b.** Read PLC Session 13, Teacher Manual and related Learner Material (NTS 3a).
- c.** Bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- d.** Identify areas you found challenging in your planning and administering of the assessment for discussion during the next session.

PLC Session 13: Definition and types of market structures

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 12
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 13?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 13 on *the Definition and types of market structures* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 13 on Definition and types of market structures (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest 3 essential questions for Week 13 on Market Structures Definition and Types, focusing on market organization characteristics, competition levels, and real-world applications using familiar Ghanaian businesses and markets.

ii. Differentiation

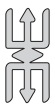
Provide differentiation for Week 13 lesson on Market Structures Definition and Types, supporting 7 AP learners needing flexible pathways to identify market types, 20 P learners explaining identified structures, and 30 HP learners comparing and contrasting different market structures.

iii. Learning activities

Design learning activities for Week 13 lesson on Market Structures Definition and Types using ‘Experiential Learning’ pedagogy for 1 session (2 hours) with 57 learners in mixed groups.

iv. Assessment tasks

Craft 2 assessment tasks for Week 13 on Market Structures Definition and Types, covering DoK levels 1, 3, and 4, using Discussion as the assessment mode. Include market structure identification, and a critique of market operations from a provided extract.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Differentiation

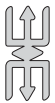
Review the attached learning plan for Week 13 on Factors that affect the supply of a commodity and confirm the appropriateness of the differentiation strategy applied in the lesson activities, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) learning activities
- b) essential questions
- c) assessment tasks, etc.



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

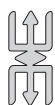
2.3 Share your experience with the group.

2.0 Enactment (25 minutes)

2.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).

2.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

2.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

3.0 Reflection (10 minutes)

3.1 Reflect and share your views on the session (NTS 1a, 1b).

3.2 Identify a colleague to observe your lesson in relation to PLC Session 13 to provide feedback on your lesson (NTS 1f, 1g).

3.3 Remember to:

- a.** Read PLC Session 14, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 14: Preparing for Student Transcript Portal Assessment – Individual Project

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 13 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while populating your learning plan for week 14 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to use the subject-specific App to

- 1. review the completed learning plan for week 14
- 2. prepare assessment tasks and rubrics for Individual Project

Learning Outcome (LO): To review the learning plan for week 14 and address any challenges in planning and developing assessment tasks for the Group Project (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Review the learning plan and address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Discuss, develop and review assessment tasks with rubrics for the individual project.

2.0 Reviewing the Learning Plan (20 minutes)

- 2.1 Upload your completed learning plan into the subject-specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Differentiation

Review the attached learning plan and check for the use of differentiation based on the class characteristics, and recommend an improved activity for easy implementation in the classroom.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

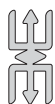
- a) learning activities
- b) essential questions
- c) assessment tasks, etc.

3.0 Prepare to Assign, Assess and Record for the Student Transcript Portal (50 minutes)

- 3.1** Refer to your Teacher Manual for the key assessment to be recorded in the Student Transcript Portal and have a chat with the subject-specific App to review or develop your assessment tasks and mark schemes/rubrics (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

Review the Individual Project assessment task in the attached learning plan and confirm if the questions align with the content in the teacher/learner material. Suggest appropriate modifications to areas that are not content-related.



Note

One prompt may not be enough for the App to provide all that you may need for the tasks.

- 3.2** Have a chat with your App to verify the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the suggestions to refine the assessment tasks (NTS 1a, 2b, 2c and 3e–3q). In doing this activity, consider:

i. Task

Review if the individual project task satisfies the varied learners' characteristics in the class. Recommend possible adjustments.

ii. Mark scheme and score distribution

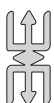
Suggest a brief rubric that I can share with learners to guide them in doing the project work.

iii. Resources needed for assessment administration

Suggest appropriate resources I can use to administer the individual project.

iv. How to provide feedback

Suggest an appropriate feedback mechanism that can support diverse learners after I have marked/scored the project.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 14 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
- b.** Read PLC Session 15, Teacher Manual and related Learner Material (NTS 3a).
- c.** Bring along your Laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- d.** Identify areas you found challenging in your teaching and administration of the assessment for discussion during the next session.

PLC Session 15: Market Equilibrium and Determination of Equilibrium Price and Output

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 14
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 15?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 15 on *Market Equilibrium and Determination of Equilibrium Price and Output* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 15 on Market Equilibrium and Determination of Equilibrium Price and Output (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

develop 3 essential questions for Week 15 on Market Equilibrium and Determination of Equilibrium Price and Output, emphasising market balance concepts, price determination mechanisms, and practical equilibrium calculations using familiar Ghanaian market examples.

ii. Differentiation

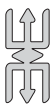
Structure differentiation approaches for Week 15 on Market Equilibrium and Determination of Equilibrium Price and Output, to accommodate 7 AP learners requiring flexible pathways to explain market equilibrium, 20 P learners applying knowledge to describe equilibrium graphically, and 30 HP learners fostering reflective practice through algebraic equilibrium analysis.

iii. Learning activities

Suggest collaborative activities for Week 15 on Market Equilibrium and Determination of Equilibrium Price and Output employing Building on What Others Say pedagogy for 2 sessions with 57 learners in mixed-ability groups.

iv. Assessment tasks

Give 2 assessment tasks for Week 15 on Market Equilibrium and Determination of Equilibrium Price and Output, for DoK levels 1, 3, and 4, using Homework as the assessment mode



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT

Move to Activity 3.0



2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose

To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e–3q).

E.g.

Learning activities

Review the attached learning plan for Week 15 on Market Equilibrium and Determination of Equilibrium Price and Output, and point out the lesson activities that may not be practical for a rural community school, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) differentiation
- c) assessment tasks, etc.



Note

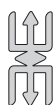
- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans

- iii. *Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.*

- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- 2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

- 3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).
- 3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

- 4.1 Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 15 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 16, Teacher Manual and related Learner Material (NTS 3a).
 - b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 16: Effects of Changes in Fundamental Macroeconomic Variables on the Economy and Control Policies

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 15
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 16?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 16 on *Effects of Changes in Fundamental Macroeconomic Variables on the Economy and Control Policies* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 16 on Effects of Changes in Fundamental Macroeconomic Variables on the Economy and Control Policies (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Give three essential questions for Week 16 on Effects of Changes in Fundamental Macroeconomic Variables, highlighting relationships between macroeconomic indicators and GDP, policy intervention mechanisms, and practical applications using Ghana's economic experiences and challenges.

ii. Differentiation

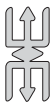
Propose differentiation strategies for Week 16 lesson on Effects of Changes in Fundamental Macroeconomic Variables, supporting 7 AP learners needing assistance connecting inflation concepts to GDP, 20 P learners examining unemployment rate effects on GDP, and 30 HP learners designing a critical analysis of inflation and exchange rate appreciation/depreciation impacts.

iii. Learning activities

Suggest learning activities for Week 16 lesson on Effects of Changes in Fundamental Macroeconomic Variables using Initiating Talk for Learning and Problem-Based Learning pedagogies for 2 sessions with 57 learners in mixed-ability groups.

iv. Assessment tasks

Prepare a motion for debate for Week 16 lesson on Effects of Changes in Fundamental Macroeconomic Variables, covering DoK levels 2–4, employing. It should include conceptual explanations of any 2 variables and their effects on Ghana's macroeconomic fluctuations.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Assessment tasks

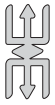
Review the assessment component in the attached learning plan for Week 16 on Effects of Changes in Fundamental Macroeconomic Variables on the Economy and Control Policies, and suggest how the debate can be scored appropriately, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) differentiation
- c) learning activities, etc.

**Note**

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

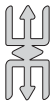
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).

**Note**

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 16 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a. Read PLC Session 17, Teacher Manual and related Learner Material (NTS 3a).
- b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c. Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 17: Introduction to National Income

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 16
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 17?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 17 on *Introduction to National Income* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 17 on Introduction to National Income (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Write 3 essential questions for Week 17 on Introduction and Calculation of National Income, focusing on economic measurement concepts, product approach methodology, and practical applications using Ghanaian economic data and sectoral contributions.

ii. Differentiation

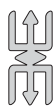
Design differentiation strategies for Week 17 on Introduction and Calculation of National Income, accommodating 7 AP learners requiring targeted support explaining national income using real-world examples, 20 P learners applying knowledge to calculate GDP and GNP, and 30 HP learners engaging in critical thinking exercises in calculating NNP with commentary.

iii. Learning activities

Develop learning activities for Week 17 on Introduction and Calculation of National Income employing 'Building on What Others Say' pedagogy with 57 learners in mixed-ability groups. Focus on brainstorming national income concepts and calculating national income using the product approach with real-world examples.

iv. Assessment tasks

Suggest 2 assessment tasks for Week 17 lesson on Introduction and Calculation of National Income for DoK levels 1, 2, and 4, with Case Study as the assessment mode.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT

Move to Activity 3.0



2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e–3q).

E.g.

Differentiation

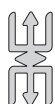
Review the differentiation component in the attached learning plan for Week 17 on Introduction and Calculation of National Income, and recommend its appropriateness for the learner characteristics in the class, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) learning activities, etc.
- c) assessment tasks



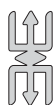
Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- 2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

- 3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).
- 3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

- 4.1 Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 17 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 18, Teacher Manual and related Learner Material (NTS 3a).
 - b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. Identify areas you find challenging in your teaching for discussion during the next session

PLC Session 18: Preparing for Mid-Semester Examination

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 17 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while pre-populating your learning plan for week 18 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to use the subject-specific App to

- 1. review the completed learning plan for week 18
- 2. prepare assessment tasks and rubrics for mid-semester examination

Learning Outcome (LO): To review the learning plan for week 18 and address any challenges in planning and developing assessment tasks for the mid-semester examination (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Review the learning plan and address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Discuss, develop and review assessment tasks with rubrics for the mid-semester examination.

2.0 Reviewing the Learning Plan (20 minutes)

- 2.1 Upload your learning plan into the subject-specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Assessment tasks

Review the attached learning plan for Week 18 and check for the linkage between the week's formative assessment and the focal areas covered. Recommend alternative assessment tasks that match the focal areas if the current one is inappropriate.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

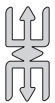
- a) essential questions
- b) differentiation
- c) learning activities, etc.

3.0 Prepare for Mid-Semester Examination (50 minutes)

- 3.1** Refer to your Teacher Manual for the format of the mid-semester examination and use the subject-specific App to review or develop your assessment tasks, mark schemes/rubrics, etc. (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

The guidelines for mid-semester examination recommend that the examination should cover indicators in weeks 13 to 17. Refer to the TOS and Examination Guidelines to create the examination items. Options for MCQ should be equal in word count/length. Provide the final version of the MCQ items, essay, and their rubric.



Note

In preparing for mid-semester examination, one prompt may not be enough for the App to provide all you need (Dok levels, structure, distribution across Dok levels, etc.)

- 3.2** Have a chat with your App to review the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the review to refine the responses to complete the set questions (NTS 1a, 2b, 2c and 3e–3q). In doing this activity, consider:

E.g.

i. Whether the assessment tasks generated follow 30%, 40%, 30% Dok distribution

Does the percentage allocation for items in each Dok level fall reasonably within the 30, 40, 30 distributions? If there are inconsistencies, recommend the Dok levels that need revision to achieve an acceptable structure.

ii. Mark scheme and score distribution

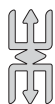
Confirm whether the answers provided in the mark scheme are correct as required by the questions. Recommend the necessary amendments for items that may need revision.

iii. Resources needed for assessment administration

The only resources I have for this exam are a whiteboard and a marker. Recommend some practical for the administration this exam successfully and also minimise cheating in the exam.

iv. How to provide feedback

Offer practical tips on targeted feedback to learners, considering the different abilities and SEN in my class.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 18 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Mark, record and upload your learners' assessment scores in the Student Transcript Portal.
- b.** Read PLC Session 19, Teacher Manual and related Learner Material (NTS 3a).
- c.** Bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- d.** Identify areas you found challenging in your planning and administering of the assessment for discussion during the next session.

PLC Session 19: Reasons for Holding Money and the Role of Financial Institutions in an Economy

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 18
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 19?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 19 on *Reasons for Holding Money and the Role of Financial Institutions in an Economy* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 19 on Reasons for Holding Money and the Role of Financial Institutions in an Economy (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest 3 critical thinking essential questions for Week 19 lesson on Motives for Holding Money and Financial Institutions, 1 for the facilitator, two for learners.

ii. Differentiation

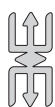
Plan differentiation approaches to support 7 AP learners needing guidance in identifying money-holding reasons, 20 P learners explaining financial institution functions, and 30 HP learners focusing on relationships between money motives and institutional services.

iii. Learning activities

Structure learning activities for Week 19 lesson on Motives for Holding Money and Financial Institutions, utilising Building on What Others Say and Collaborative Learning pedagogies for 2 sessions (2 hours each) with 57 learners in mixed-ability groups.

iv. Assessment tasks

Suggest suitable matching assessment tasks for Week 19 lesson on Motives for Holding Money and Financial Institutions, covering DoK levels 1–4, employing Critiquing as the assessment mode.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e–3q).

E.g.

Differentiation

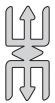
The attached learning plan is for Week 19, Reasons for Holding Money and the Role of Financial Institutions in an Economy. Review and recommend the feasibility of the differentiation strategy suggested, etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) learning activities, etc.
- c) assessment tasks



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

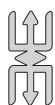
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 19 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Read PLC Session 20, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 20: Principles, Types and Classification of Taxation

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 19
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 20?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 20 on *Principles, Types and Classification of Taxation* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 20 on Principles, Types and Classification of Taxation (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest 3 essential questions that will guide week 20 lesson on Principles and Types of Taxation, using familiar examples from Ghana’s tax policies and citizen experiences.

ii. Differentiation

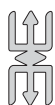
Arrange differentiation strategies for Week 20 on Principles and Types of Taxation accommodating 7 AP learners needing support identifying taxation principles, 20 P learners explaining different tax types with examples, and 30 HP learners designing critical thinking exercises analysing tax principle applications in Ghana.

iii. Learning activities

Develop learning activities for Week 20 lesson on Principles and Types of Taxation using ‘Collaborative Learning’ pedagogy for 1 session (2 hours) with 57 learners in mixed–ability groups.

iv. Assessment tasks

Write one assessment task for Week 20 on Principles and Types of Taxation covering DoK levels 1–3, using Research/Investigation as the assessment method. Include the principle identification, tax type classifications, and strategic analysis of taxation applications in Ghana’s revenue generation system.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Assessment tasks

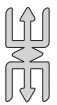
How can I integrate and assess national values in the Week 20 research assessment tasks? etc.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) learning activities
- c) differentiation, etc.



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

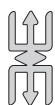
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 21 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Read PLC Session 22, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session

PLC Session 21: Advantages and Disadvantages of Taxation

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 20
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 21?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0 A Planning and Reviewing of Learning Plan (50 minutes)

Purpose

The purpose for this session is to populate the learning planner for week 21 on *Advantages and Disadvantages of Taxation* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

- 2.1** Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 21 on Advantages and Disadvantages of Taxation (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Give 3 essential questions for Week 21 on Advantages and Disadvantages of Taxation, highlighting government revenue generation benefits, potential economic burdens on citizens, and balanced perspectives on taxation’s role in Ghana’s socio-economic development.

ii. Differentiation

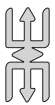
Suggest simple differentiation strategies for Week 21 on Advantages and Disadvantages of Taxation, supporting 7 AP learners requiring assistance identifying taxation advantages and disadvantages, 20 P learners explaining taxation benefits with examples, and 30 HP learners exploring ethical dilemmas and societal impacts of Ghana’s taxation system.

iii. Learning activities

Build learning activities for Week 21 on Advantages and Disadvantages of Taxation employing ‘Experiential Learning’ pedagogy for 1 session (2 hours) with 57 learners in mixed-ability groups. Focus on watching videos or role-playing scenarios to explore taxation benefits and drawbacks, using Ghana’s economic context.

iv. Assessment tasks

Suggest 2 assessment tasks for Week 21 on Advantages and Disadvantages of Taxation, covering DoK levels 2 and 4, using teacher-led questioning as the assessment mode. Include identification of taxation benefits and challenges.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT

Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

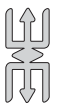
Assessment tasks

How can I integrate and assess national values in the Week 21 assessment tasks? Etc.

Hint

Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) learning activities
- c) differentiation, etc.

**Note**

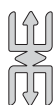
- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans

- iii. *Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.*

- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- 2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

- 3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c–3j).
- 3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

- 4.1 Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 21 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 22, Teacher Manual and related Learner Material (NTS 3a).
 - b. Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. Identify areas you find challenging in your teaching for discussion during the next session

PLC Session 22: Agriculture and Service Sectors; Challenges and Solutions

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 21
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 22?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 22 on *Agriculture and Service Sectors; Challenges and Solutions* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 22 on Agriculture and Service Sectors; Challenges and Solutions (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Give three essential questions for Week 22 on Agriculture and Service Sectors: Challenges and Solutions, focusing on sectoral development obstacles, practical solution approaches, and economic importance of these sectors in Ghana’s overall development strategy.

ii. Differentiation

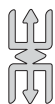
Structure differentiation strategies for Week 22 on Agriculture and Service Sectors: Challenges and Solutions, to support 7 AP learners needing assistance connecting information to identify three challenges and solutions, 20 P learners explaining five challenges using real-world examples, and 30 HP learners designing critical thinking exercises providing solutions using real-world scenarios.

iii. Learning activities

Suggest learning activities for Week 22 on Agriculture and Service Sectors: Challenges and Solutions using ‘Collaborative Learning’ pedagogy for 1 session (2 hours) with 57 learners in mixed-ability groups. Focus on brainstorming agricultural and service sector challenges in Ghana, then suggesting solutions through group discussions and PowerPoint presentations.

iv. Assessment tasks

Design 25 MCQ assessment tasks for Week 22 on Agriculture and Service Sectors: Challenges and Solutions, covering DoK levels 1 and 3. Include definitions, challenge identification, solution explanations, and strategic reasoning about sectoral improvements using real-world Ghana scenarios.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT

Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e–3q).

E.g.

Assessment tasks

Review the MCQ items attached in this learning plan for Week 22 and suggest improvements in questions that depict ambiguity, patterns in key, and any other MCQ distribution, etc.

Hint

Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) differentiation
- c) learning activities, etc.

**Note**

- i. *Chatting once may not be enough for the App to provide all that you may need for the tasks*

- ii. Transfer the information from your SS App into your learning planner template to complete your plans*
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.*

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

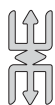
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c-3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 22 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Read PLC Session 23, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session

PLC Session 23: Industrial Sector; Challenges and Solutions

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 22
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 23?
 - a. If you answered **yes**, conduct your PLC Session from Activity 2.0B
 - b. If you answered **no**, conduct your PLC Session from Activity 2.0A

HINT



You cannot conduct PLC on Activity 2.0B if you **have not** prepared your learning plan

2.0A Planning and Reviewing of Learning Plan (50 minutes)

Purpose: The purpose for this session is to populate the learning planner for week 23 on *Industrial Sector; Challenges and Solutions* using the subject specific App.

Learning Outcome (LO): To populate the learning planner with the essential questions, differentiation, learning activities and key assessments and use the subject specific App to review your populated learning plan (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

Learning Indicator (LI) 1: Populate the learning planner using the subject specific App

Learning Indicator (LI) 2: Enact an activity from your reviewed learning plan.

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 23 on Industrial Sector; Challenges and Solutions (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Generate 3 essential questions for Week 23 on Industrial Sector: Challenges and Solutions, emphasising manufacturing development barriers, infrastructure requirements for industrial growth, and practical approaches to enhancing Ghana’s secondary sector competitiveness and productivity.

ii. Differentiation

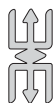
Suggest differentiation strategies for Week 23 on Industrial Sector: Challenges and Solutions accommodating 7 AP learners needing smaller manageable steps to mention four challenges, 20 P learners explaining challenges using real-world examples, and 30 HP learners describing solutions needed to mitigate industrial sector challenges.

iii. Learning activities

Establish learning activities for Week 23 on Industrial Sector: Challenges and Solutions using ‘Collaborative Learning’ pedagogy for 1 session (2 hours) with 57 learners in mixed-ability groups. Focus on internet searches for secondary industry challenges in Ghana and worldwide, then suggesting solutions through group discussions and presentations.

iv. Assessment tasks

Suggest one assessment task for Week 23 on Industrial Sector covering DoK levels 1 and 4, utilising Individual Presentations as the assessment mode.



Note

- i.** Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii.** Transfer the information from your SS App into your learning planner template to complete your plans.
- iii.** Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.

HINT

Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing challenges in planning, delivering and assessing lessons (50 minutes)

Purpose: To support teachers address challenges they may have during lesson preparation and delivery.

Learning Outcome (LO): To address specific concerns of teachers in planning, teaching and assessment.

Learning Indicator (LI) 1: Address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Enact an activity in preparation to teach the lesson.

- 2.1** Upload your completed learning plan into the subject specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Assessment tasks

Review the week's assessment in the attached learning plan for Week 23 and suggest improvements to ensure that the task is differentiated for all learners with an accompanying scoring guide, etc.

Hint

Continue chatting with your App to verify the following and use the responses to complete your plan

- a) essential questions
- b) differentiation
- c) learning activities, etc.

**Note**

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks

- ii. Transfer the information from your SS App into your learning planner template to complete your plans*
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.*

2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).

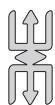
2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

3.1 Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c-3j).

3.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).

3.3 Ask for feedback on the activity enacted (NTS 1a, 1e, 2c and 3o).



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 23 to provide feedback on your lesson (NTS 1f, 1g).

4.3 Remember to:

- a.** Read PLC Session 24, Teacher Manual and related Learner Material (NTS 3a).
- b.** Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- c.** Identify areas you find challenging in your teaching for discussion during the next session

PLC Session 24: Preparing for End of Semester Examination

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 23 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while pre-populating your learning plan for week 24 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

Purpose: The purpose of this session is to use the subject-specific App to

1. review the completed learning plan for week 24
2. prepare assessment tasks and rubrics for end of semester examination

Learning Outcome (LO): To review the learning plan for week 24 and address any challenges in planning and developing assessment tasks for the end of semester examination (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g-3k and 3o).

Learning Indicator (LI) 1: Review the learning plan and address challenges in the preparation and delivery of a lesson.

Learning Indicator (LI) 2: Discuss, develop and review assessment tasks with rubrics for the end of semester examination.

2.0 Reviewing the Learning Plan (20 minutes)

- 2.1 Upload your learning plan into the subject-specific App. Have a chat with your App to verify the following and discuss their suitability to reflect the diverse needs of learners in your class (NTS 1a, 2b, 2c and 3e-3q).

E.g.

Differentiation

Attached is a learning plan for Week 24 on the indicator: Explain the concept of International Trade and Compare domestic trade to international trade. Review the plan and tell how well keynotes on differentiation have been integrated into the learning activities. If not properly integrated, rewrite the activity to include simple notes on differentiation from the introduction to the conclusion.

Hint



Continue chatting with your App to verify the following and use the responses to complete your plan

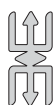
- a) essential questions
- b) learning activities
- c) assessment tasks, etc.

3.0 Prepare for End of Semester Examination (50 minutes)

- 3.1** Refer to your Teacher Manual for the format of the end of semester examination and use the subject-specific App to review or develop your assessment tasks, mark schemes/rubrics, etc. (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

The Teacher Manual recommends that the end of semester examination should cover learning indicators in weeks 13 to 24. Refer to the TOS structure and Examination Guidelines and write the items for the exam. MCQ Options should be equal in word count/length. Provide the final version of the MCQ items, essay, and their mark scheme/rubric.



Note

In preparing for end of semester examination, one prompt may not be enough for the App to provide all you need (DoK levels, structure, distribution across DoK levels, etc).

- 3.2** Have a chat with your App to review the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the review to refine the responses to complete the set questions (NTS 1a, 2b, 2c and 3e–3q). In doing this activity, consider:

E.g.

i. Whether the assessment tasks generated follow 30%, 40%, 30% DoK distribution

Verify whether the assessment tasks/items generated meet the acceptable DoK consideration of 30%, 40%, 30% distribution. Identify items that need to be reviewed for the TOS to meet an appreciable DoK expectation for an examination.

ii. Mark scheme and score distribution

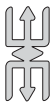
Analyse the mark schemes and key distribution. Revise items that may need revision for a fair distribution.

iii. Resources needed for assessment administration

My resources for this exam include the printed question paper, no scannable sheet for shading, and a poorly ventilated classroom. Recommend ways I could administer this exam to ensure that it is fair to all learners.

iv. How to provide feedback

Suggest a written or oral feedback mechanism that I can use for this examination.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

4.1 Reflect and share your views on the session (NTS 1a, 1b).

4.2 Identify a colleague to observe your lesson in relation to PLC Session 24 to provide feedback on your lesson (NTS 1f, 1g).

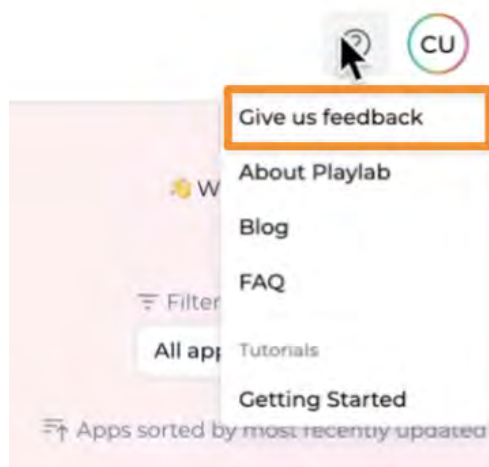
4.3 Remember to mark, record, and upload your learners' assessment scores in the Student Transcript Portal.

Appendix 1: Subject Specific App Teaching & Learning Apps – Issue Reporting Guide

How to Report Issues or Get Support

You have three ways to report issues with the subject-specific apps:

1. Email Support
 - For general issues: Send email to: support@playlab.ai
 - Include:
 - Your school name and region
 - Subject app you're using
 - Description of the issue
 - Screenshots or screen recordings (if possible)
 - Best for: School administrators reporting multiple app issues
 - Response time: Within 24 hours
 - If Urgent please include [URGENT] Message Text in your subject line.
2. Submit Feedback in Playlab
 - In the app, Click the “Give us Feedback” link in the menu and share feedback.



- Access the Feedback Form here
- Complete the form and upload any supporting documentation. (The more detailed your submission is, the more helpful support will be)



User Feedback Form

We want to hear your feedback and learn more about how we can improve Playlab for you. *Please complete this form to submit your feedback to the Playlab team.*

Full Name*

Your answer

Email*

Your answer

What is your role?*

Your answer

Please share your feedback

What challenge are you facing? What feature would you like to see?

Your answer

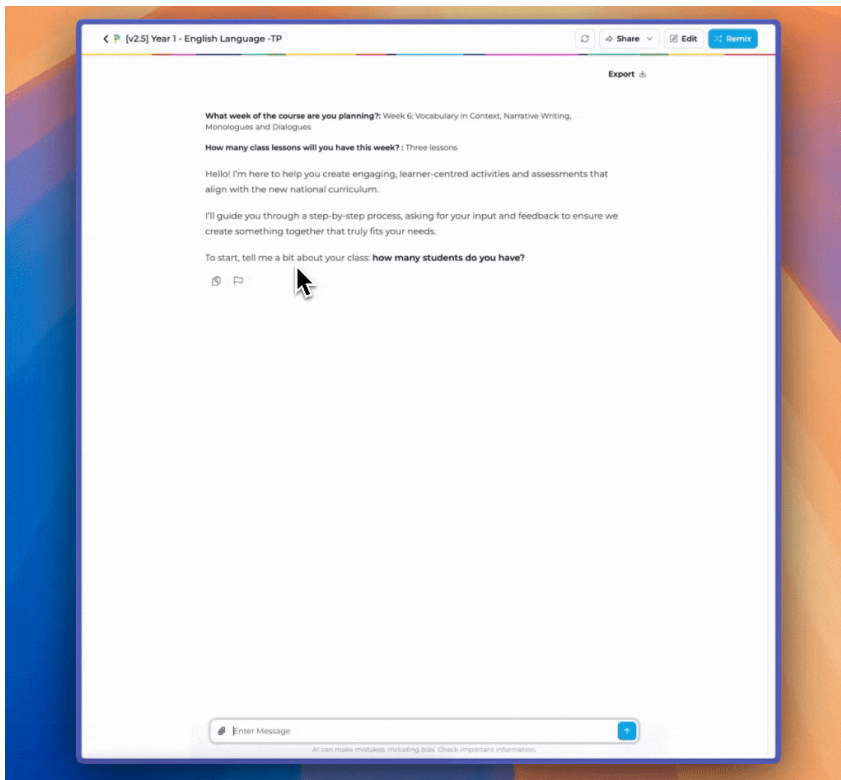
Please share any screenshots or videos that help visualize your feedback.

 **Upload** Size limit: 100 MB. File limit: 10.

Submit

Never submit sensitive personal information, like passwords, through Notion Forms.
[Report abuse](#)

- Best for: Individual teachers reporting specific issues
 - Response time: Within 24–48 hours
3. In-Chat Flagging
- Look for the flag button within your chat conversation



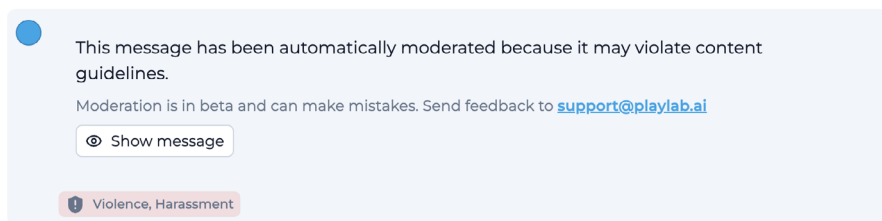
- Click to report biased, inaccurate, or inappropriate messages.
- Best for: Immediate issues with app responses
- There is also in app moderation for both user messages and AI generated responses. You can read more about it here.

What Happens After You Report?

1. The message will be flagged in your user activity. You will see indicators of messages that have been moderated or flagged.

KIPP NYC Restorative Plan Designer	8/21/2025
	 7  1
KIPP NYC Restorative Plan Designer	8/21/2025
	 5
KIPP NYC Restorative Plan Designer	8/15/2025
	 7  1

2. You can review the messages in activity. By default the message is hidden unless you click “show message”.



Thank you for sharing the details of the incident. Here's the step-by-step analysis and proposed restorative plan based on the provided situation:

3. If something is consistently being flagged, you may want to address it in your implementation, make revisions to the app, or contact [support@playlab.ai](\"mailto:support@playlab.ai\") for more guidance.

Tips for Effective Reporting:

- Be specific about what you were trying to do
- Note which subject app you're using
- Include your school and region information
- Describe what happened versus what you expected

Additional Support Resources

1 App Basics:

- Starting a conversation
 - Scan your QR code to use your app.
- If you encounter a problem, follow the directions for Escalating an issue.

Video Tutorials

- a Lesson Planning Walkthrough: Step-by-step guide using a real subject app with sample conversations
 - Lesson Plan Development
 - Watch a sample conversation here.
 - As you're using the apps, you can provide specifics on how you might want to differentiate for class needs
 - Assessment Development
 - Watch a sample conversation here.

- As you're using the apps, you can adjust the DOK levels as you create assessments at different complexity levels
- b For any additional questions please refer to the learn.playlab.ai page.

Key Reminders

- 1 Apps are supplemental tools to support your PLC Handbook and Teacher Manual—not replace them
- 2 Always refer to official curriculum documents as your primary resource
- 3 Use your professional judgment to adapt app suggestions for your classroom context

Appendix 2: Learning Planner Template

Name of Subject:							
Learning Planner Template Year Two							
Number of Learners in Class		Week		Duration		Form	
Strand							
Sub-Strand							
Content Standard							
Learning Outcome(s)							
Learning Indicator(s)							
Essential Question(s)							
Pedagogical Strategies							
Teaching & Learning Resources							
Key Notes on Differentiation Identify the different learner needs in your class and make notes on how to cater for them during the lesson							
Lesson (complete per number of lessons for the week)							
Refer to the Teacher Manual and Learner Material to complete this section							
Introduction Main Lesson Closure							

Key Assessment	
1.	Formative Assessment Mode: Task: Mark Scheme:
2.	Key Assessment for Student Transcript Portal Assessment Mode: Task: Rubric/Mark Scheme:
Reflection & Remarks	

Appendix 3: Teacher Lesson Observation Form

Teacher Lesson Observation Form

Name of School

Subject being observed

Class

Year 1

Year 2

Year 3

Sex of the teacher

Male

Female

1. Is the purpose of the lesson clearly stated in the lesson plan and focused on learners achieving the lesson learning outcomes?

Yes

In Part

No

NA

- b1. Please provide an explanation to your answer in Q1 above

2. Are the unique needs of female learners, male learners, and learners with special education needs adequately catered for in the lesson plan? For example, the choice of teaching methods and learning activities reflects/does not reflect the learning needs of all learners.

For example, the choice of teaching methods, and learning activities.

Yes

In Part

No

NA

2b. Please provide an explanation to your answer in Q2 above

3. Does the teacher manage behavior well, maintaining a positive and non-threatening learning environment throughout the lesson?

Yes In Part No NA

3b. Please provide an explanation to your answer in Q3 above

4. Are appropriate teaching and learning materials and other resources (including ICT, books, desks) available, accessible and being used to support learning of all females, males and learners with special education needs?

Yes In Part No NA

4b. Please provide an explanation to your answer in Q4 above

5. Are learners engaged on tasks that challenge them in line with the content standards?

Does the teacher take into consideration the uniqueness of learners?

Yes In Part No NA

5b. Please provide an explanation to your answer in Q5 above

6. Is there evidence that students are learning?

Yes In Part No NA

6b. Please provide an explanation to your answer in Q6 above

7. Is teaching differentiated to cater for the varied needs of all learners (i.e., male learners, female learners, learners with special education needs) and those with poor literacy and/ or numeracy proficiency?

Yes In Part No NA

7b. Please provide an explanation to your answer in Q7 above

8. Does the teacher use real life examples which are familiar to learners to explain concepts?

Yes In Part No NA

8b. Please provide an explanation to your answer in Q8 above

9. Does the teacher point out or question traditional gender roles when they come up during the lessons as appropriate?

Yes In Part No NA

9b. Please provide an explanation to your answer in Q9 above

10. Does the lesson include appropriate interactive and creative approaches e.g., group work, role play, storytelling to support learners achieving the learning outcomes?

If yes, give examples of the issues and skills that have been so integrated.

Yes In Part No NA

10b. Please provide an explanation to your answer in Q10 above

11. Have cross-cutting issues and /or 21st century skills been integrated into the lesson to support learners in achieving the learning outcomes e.g., problem-solving, critical thinking, communication? If yes, give examples of the issues and skills that have been so integrated.

Yes In Part No NA

11b. If yes, give examples of the issues and skills that have been so integrated.

12. Does the teacher incorporate ICT into their practice to support learning?

Yes In Part No NA

12b. Please provide an explanation to your answer in Q12 above

13. Does the teacher encourage all female male and male learners (including those who may be shy or afraid to speak) to ask questions, answer questions, participate in group work, etc. during the lesson?

Yes In Part No NA

13b. Please provide an explanation to your answer in Q13 above

14. Is assessment evident in the lesson? If yes, does it include assessment as, for or of learning and go beyond recall?

If yes, did it include assessment of, for or as learning and go beyond recall?

Yes In Part No NA

14b. Please provide an explanation to your answer in Q14 above

15. Do learners make use of feedback from teacher and peers?

Yes In Part No NA

15b. Please provide an explanation to your answer in Q15 above

16. Does the teacher sum up the lesson and evaluate the lesson against the learning outcomes with the learners?

Yes In Part No NA

16b. Please provide an explanation to your answer in Q16 above

17. Does the teachers' planning of lessons taught before the one observed show how they plan for learning over time, considering individual and group needs?

Yes In Part No NA

17b. Please provide an explanation to your answer in Q17 above

18. Does the teacher pay attention to the composition of females and males during group work and assigns females leadership roles.

Yes In Part No NA

18b. Please provide an explanation to your answer in Q18 above

19. Does the teacher provide constructive verbal feedback to both females and males and learners with special education needs?

Yes

In Part

No

NA

19b. Please provide an explanation to your answer in Q19 above

20. Does the teacher provide constructive written feedback to both females and males and learners with special education needs in their exercise book?

Yes

In Part

No

NA

20b. Please provide an explanation to your answer in Q20 above

21. Key strengths
in the lesson

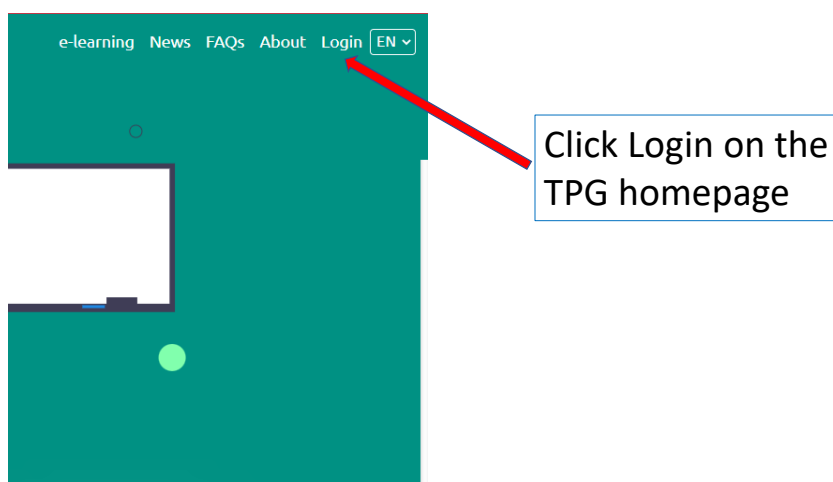
22. Areas for
development

23. Next steps for
teacher

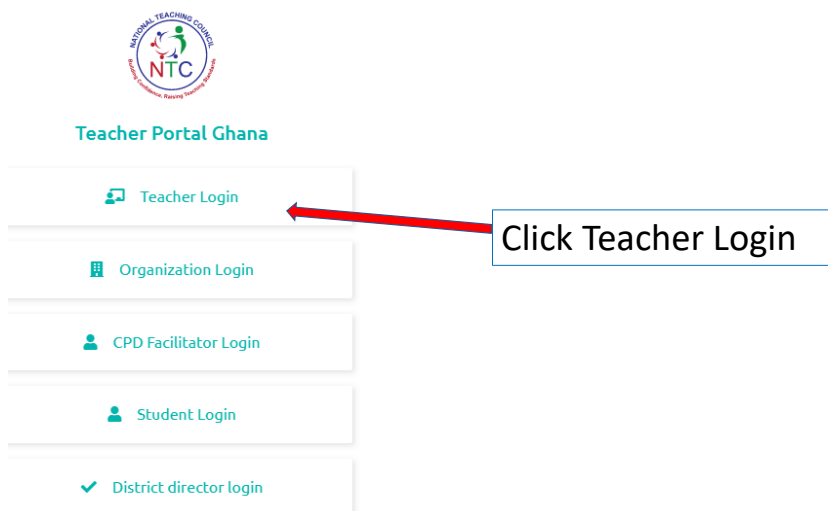
Additional Notes (on teacher's actions, the flow of activities, etc.)

Appendix 4: How to check CPD Points and Training Records on Teacher Portal Ghana

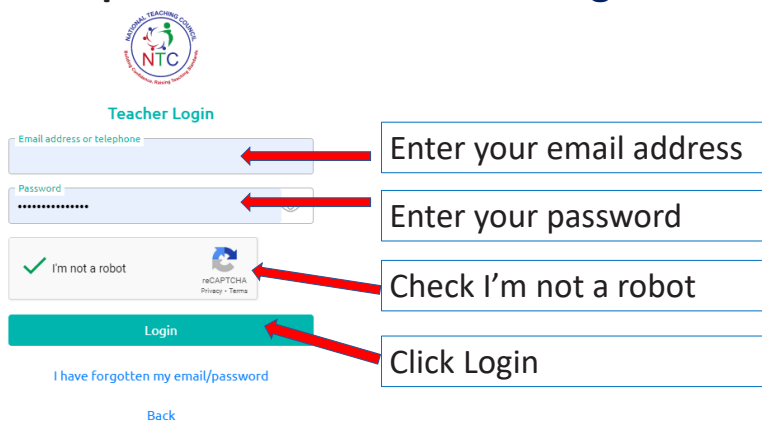
1. Visit tpg.ntc.gov.gh and click Login



2. On the Login page, click Teacher Login



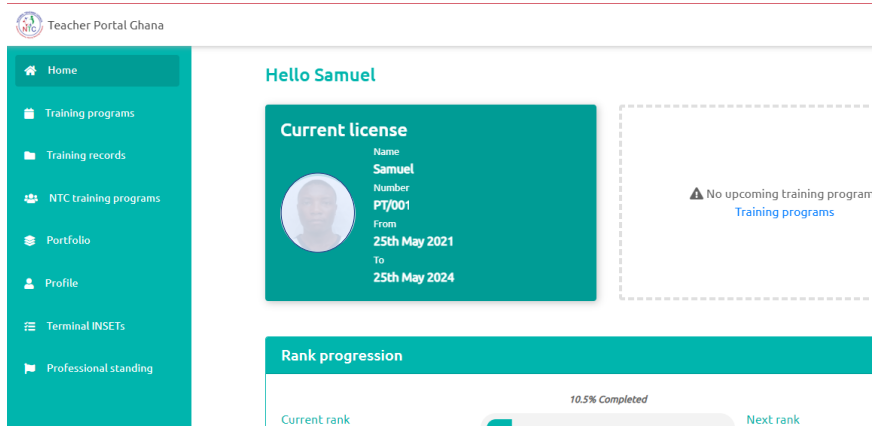
3. On the **Teacher Login** page enter your email address and password and then click **Login**



The image shows the Teacher Login page with the following elements and annotations:

- Teacher Login** (Page Title)
- Email address or telephone** (Input field) → **Enter your email address**
- Password** (Input field) → **Enter your password**
- I'm not a robot** (CAPTCHA) → **Check I'm not a robot**
- Login** (Button) → **Click Login**
- [I have forgotten my email/password](#)
- [Back](#)

4. After a successful login you will get access to your **TPG account** (Check image below)



The image shows the Teacher Portal Ghana dashboard for a user named Samuel. The dashboard includes the following sections:

- Header:** Teacher Portal Ghana
- Left Sidebar:** Home, Training programs, Training records, NTC training programs, Portfolio, Profile, Terminal INSETs, Professional standing
- Main Content:**
 - Hello Samuel**
 - Current license:**
 - Name: Samuel
 - Number: PT/001
 - From: 25th May 2021
 - To: 25th May 2024
 - Rank progression:**
 - Current rank
 - 10.5% Completed
 - Next rank
 - No upcoming training program:** [Training programs](#)

5. To check CPD points, scroll down to **Rank progression**. You will see the CPD points progress bar and actual points accrued (Check image below)



6. To view training records, from the side menu tap on **Training records** (Check image below)

The image shows the 'Teacher Portal Ghana' interface. On the left is a teal side menu with options: Home, Training programs, Training records, NTC training programs, Portfolio, Profile, Terminal INSETs, and Professional standing. A red arrow points from a text box to the 'Training records' option. The main content area is titled 'Training records' and shows 'Records for training programs registered and/or attended'. It lists three programs: 'Sensitization on Education Policies' (Marked as absent), 'Differentiated Learning' (Processed, Credits: 1.32), and 'Advanced Mobile Learning with Multimedia (AMLW)' (Processed, Credits: 0.5788). A red bracket groups these programs, with a text box pointing to it. Another text box points to the 'Training records' menu item.

Teacher Portal Ghana

Training records

Records for training programs registered and/or attended

Total points: 1.8988

Training Program	Status	Credits
Sensitization on Education Policies	Marked as absent	
Differentiated Learning	Processed	1.32
Advanced Mobile Learning with Multimedia (AMLW)	Processed	0.5788

List of training programs

Click to view training records

THANK YOU

