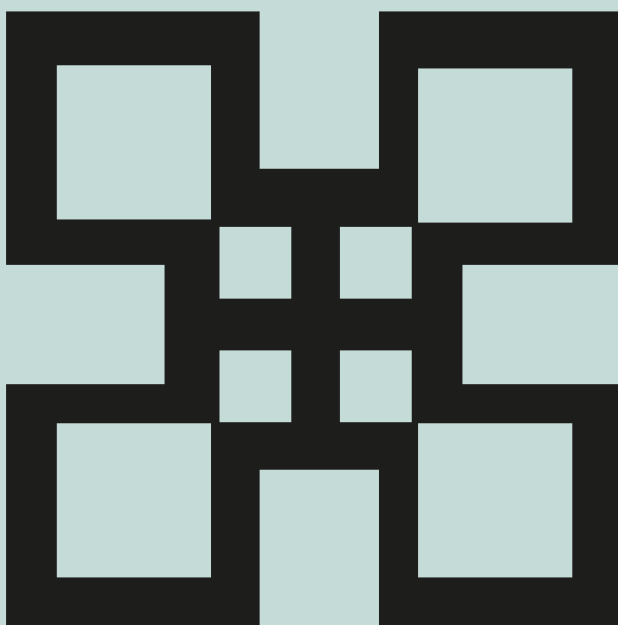


Professional Learning Community Handbook

Aviation & Aerospace Engineering

Year Two



Ghana Education
Service (GES)



**Professional Learning
Community Handbook**

**Aviation &
Aerospace
Engineering**

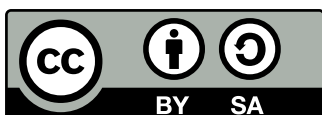
Year Two



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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: Weather and its Defining Elements	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: Introduction to Aerodynamics	16
PLC Session 5: Introduction to Lift	20
PLC Session 6: Preparing for Mid–Semester Examination	24
PLC Session 7: Drag	27
PLC Session 8: Aircraft weight and weight distribution	31
PLC Session 9: Propeller–Based Propulsion Systems	35
PLC Session 10: Gas Turbine and Rocket Propulsion	39
PLC Session 11: Calculating the Thrust of Jet Engines	43
PLC Session 12: Preparing for End of Semester Examination	47
PLC Session 13: Preparing for Student Transcript Portal Assessment – Individual Project	51
PLC Session 14: Gyroscopic Flight Instruments	54
PLC Session 15: Engine indicating instruments	58

PLC Session 16: Features of Flight Data Recorders/ Cockpit Voice Recorders	62
PLC Session 17: Case Studies on the Use of Flight Data Recorders in Accident/Incident Investigations	66
PLC Session 18: Preparing for Mid–Semester Examination	70
PLC Session 19: International Aviation Organisations	74
PLC Session 20: GCAA RPAS Directives	78
PLC Session 21: UAV Operation Safety	82
PLC Session 22: Introduction to Flight Simulators	86
PLC Session 23: Introduction to Multirotor UAV Flight Simulation	90
PLC Session 24: Preparing for End of Semester Examination	94
Appendix 1: Subject Specific App Teaching & Learning Apps – Issue Reporting Guide	97
Appendix 2: Learning Planner Template	102
Appendix 3: Teacher Lesson Observation Form	104
Appendix 4: How to check CPD Points and Training Records on Teacher Portal Ghana	110

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.

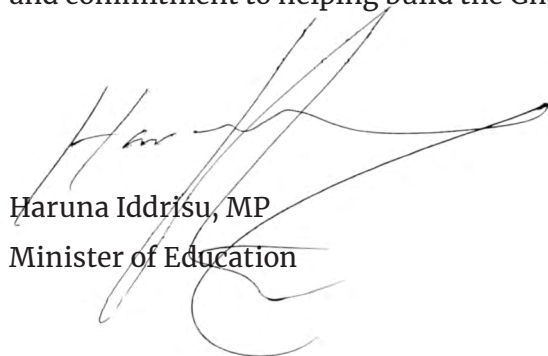
By fostering a culture of collaboration and continuous improvement through PLCs, teachers can enhance their understanding of the new SHS curriculum and effectively facilitate learning in the classroom. This will contribute to our country's resetting agenda by educating a generation of young people with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

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Links to APPs

Year One App



<https://www.playlab.ai/project/cmdw89v1e0jc6mgou8em0clf1>

Year Two App



<https://www.playlab.ai/project/cme6fh5m80cz0m90u6x57eaov>

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)

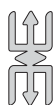
- 2.1** Scan the QR Code or use the link to access your Subject Specific App – <https://www.playlab.ai/project/cme6fh5m80cz0m90u6x57eaov>



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

E.g.

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

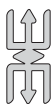
- c. *Select a week you are interested in and continue chatting with your App*
- d. *Refer to your Teacher Manual and confirm the information provided by the App or otherwise.*

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

E.g.

Select Assessment

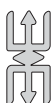
- a. *Look at the LIs for the week and select the appropriate DoK Level or Levels required for the week's lesson. For instance, 'the LI requires modelling, I would like to assess at level 3'*
- b. *Review the responses on the formats from your App, select any that meets your needs or continue chatting 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.*



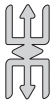
Note

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.

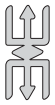


Note

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: Weather and its Defining Elements

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 weather and its defining elements 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 weather and its defining elements 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 weather and its defining elements (NTS 3a–3q).

E.g.

i. Learning activities

Design three learning activities for a 1 hour 40 minutes lesson on “Weather and Its Defining Elements” to 70 learners in Northern Ghana with access to a nearby weather station. Use talk-for-learning and problem-based strategies.

ii. Assessment tasks

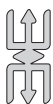
Create a homework task at DOK Level 2 for “Weather and Its Defining Elements” that requires learners to observe, record, and analyse weather patterns in Northern Ghana over a couple of days.

iii. Differentiation

Generate 5 key notes on differentiation for teaching “Weather and Its Defining Elements” to 70 learners with diverse learning needs in Northern Ghana. Focus on using local weather patterns, traditional knowledge, and community relevance to build confidence while ensuring scientific learning for all ability levels.

iv. Essential questions

Suggest 3 essential questions for teaching “Weather and Its Defining Elements” to 70 learners with diverse learning needs in Northern Ghana with access to a nearby weather station. Let one of the questions focus on the teaching process and the 2 on learners’ concept development.

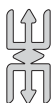
**Note**

- 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 the 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.

Essential questions

Review the essential questions in the attached learning plan to ensure coverage of the content of the lessons for Week 2 and inclusion of GESI and 21st century skills.

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.

The Teacher Manual suggests a group project for learners in Appendix A. Is it appropriate for learners in my class, given that our school is in a rural area? Also check if the suggested administration and feedback guidelines are OK.



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

Suggest modifications to the task to suit the conditions in our school.

ii. Mark scheme and score distribution

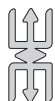
Provide matching rubrics to grade the task.

iii. Resources needed for assessment administration

Identify the resources learners would need to complete the task.

iv. How to provide feedback

Suggest guidelines for providing feedback to learners on their project work



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 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 the portfolio

Learning Outcome (LO): To review the learning plan for week 3 and address any challenges in planning and developing assessment tasks for the portfolio (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 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.

Learning activities

Are the learning activities (under headings “Lesson 1” and “Lesson 2”) in the attached learning plan comprehensive enough for teaching “The international standard atmosphere” to my class of 70 learners at varied proficiency levels, given that each lesson lasts 1 hour 40 minutes and the school has only a few projectors and ICT tools?

Hint



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

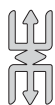
- a) essential questions
- b) differentiation
- c) assessment tasks, etc.

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 reference to Appendix B of the Teacher Manual, craft a portfolio assessment task to be assigned to learners. Provide rubrics for grading the task. Also suggest guidelines for administering the task and providing feedback to learners.



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

Can learners complete the portfolio task by Week 22 of the academic year? If not, suggest how the task can be structured to be completed by Week 22.

ii. Mark scheme and score distribution

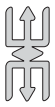
Review the rubrics to ensure they provide clear guidance for grading learners' responses.

iii. Resources needed for assessment administration

Suggest any alternative appropriate resources which learners require to complete their portfolios.

iv. How to provide feedback

Are the guidelines provided to guide the feedback I give to learners sufficient for the assessment? Suggest alternative ways I can give feedback the help learners improve performance that consider SEL.



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 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: Introduction to Aerodynamics

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 introduction to aerodynamics 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 introduction to aerodynamics (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest four essential questions to guide my lessons on “Introduction to Aerodynamics,” with two focusing on the core content, one helping me plan for learners with diverse abilities in a resource-constrained environment, and one guiding me to integrate 21st-century skills and GESI into the lesson.

ii. Differentiation

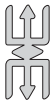
Provide four key points I should consider to effectively support all my learners – as I teach “Introduction to Aerodynamics” this week considering their different proficiency levels, varied learning styles, and limited background in mathematics.

iii. Learning activities

Develop three learning activities to teach “Introduction to Aerodynamics” in line with the Teacher Manual, with an emphasis on brainstorming and experiential learning under the headings: introductory activity, main lesson and closure. There are 40 learners in my class. Each lesson lasts 1 hour and 40 minutes. Ensure that there is a match between the learning activities, essential questions and differentiation strategies.

iv. Assessment tasks

Provide one DOK Level 3 research task that my learners can complete within 30 minutes. Include a detailed mark scheme that clearly breaks down the total marks by performance level to show how each score is earned.



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 to 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

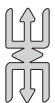
Do the learning activities in my attached plan effectively address the essential questions?



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

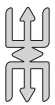
- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans

- 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 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: Introduction to Lift

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 4
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for Week 5?
 - 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 5 on introduction to lift 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 introduction to lift (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest 3 essential questions to guide my lessons on “Introduction to Lift,” focusing on the core content, using teaching strategies adapted to learners with diverse abilities in a resource-constrained environment and integrating 21st-century skills, national values, SEL and GESI into the lesson.

ii. Differentiation

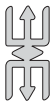
Provide four key points to consider to effectively support all 70 learners in my class as I teach “Introduction to lift” this week. Learners are at different proficiency levels, have varied learning styles, and most of them have never seen an aircraft.

iii. Learning activities

Propose three engaging, whole-class activities I can use to teach “Introduction to lift” in line with the Teacher Manual. These should match the differentiation strategies and address the essential questions. Structure the activities under the headings: introductory activity, main lesson and closure. Each lesson lasts 1 hour and 40 minutes.

iv. Assessment tasks

Provide 7 group presentation tasks for 7 groups in line with this week’s lessons. Each task should be completed within 20 minutes. Include rubrics for grading the presentations.



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 to 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

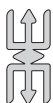
Does the attached learning plan address the needs visual learners in my class?

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).

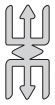
2.3 Share your experience with the group.

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 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 the 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.

Differentiation

Revise the differentiation strategies I have provided in the attached learning plan to ensure they are appropriate for the 70 learners in my class at varied proficiency levels?

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 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).

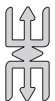
E.g.

The Teacher Manual recommends that the mid-semester examination in Week 6 should contain 20 multiple-choice and 2 essay type questions distributed 30%, 40% and 30% across DOK levels 1, 2 and (3 & 4).

Suggest,

- i. 20 multiple-choice questions (with options arranged in alphabetical order)
- ii. 2 essay type questions
- iii. A mark scheme for grading the examination.

The examination is for 1 hour. The questions generated should align with the learning indicators in weeks 1 to 5.



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**

Review the assessment tasks to ensure that the distribution is according to DOK level suggested in the Teacher Manual.

- ii. Mark scheme and score distribution**

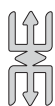
Revise the mark scheme to ensure it is appropriate for grading the essay questions in the examination.

- iii. Resources needed for assessment administration**

What resources would be required for learners to complete the mid-semester examination?

- iv. How to provide feedback**

Suggest 2 ways to provide SEL and GESI sensitive feedback to learners after the assessment to ensure learning is improved.



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:
- Mark, record and upload your learners' assessment scores in the Student Transcript Portal.
 - Read PLC Session 7, Teacher Manual and related Learner Material (NTS 3a).
 - Bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - Identify areas you found challenging in planning and administering the assessment for discussion during the next session.

PLC Session 7: Drag

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 drag 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 drag (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest four essential questions to guide my lessons this week on “Drag”. These questions should help me exhaust the content, assist learners with diverse abilities and incorporate GESI, national values and SEL into the lessons.

ii. Differentiation

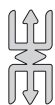
Provide four points I should keep in mind to cater for all learners in my class as I teach “Drag” this week. My learners have different proficiency levels; different learning styles; and some are visually impaired.

iii. Learning activities

using a blend of group-based and experiential learning approaches that actively engage my class of 70 learners with varying proficiency levels, provide 4 step by step activities for teaching “Drag” in line with Week 7 of the Teacher Manual.

iv. Assessment tasks

Provide one practical assessment task at DOK level 3 for this week’s lessons on “Drag”. The task should be completed within 30 minutes. Provide a mark scheme for the task.



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 to 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

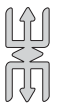
Do the assessment tasks in the attached learning plan do justice to the content of the week's lessons?

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).

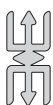
2.3 Share your experience with the group.

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 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: Aircraft weight and weight distribution

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 7
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for week 8?
 - 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 8 on aircraft weight and weight distribution 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 aircraft weight and weight distribution (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Provide four essential questions to guide my lessons on “Aircraft Weight and Weight Distribution” focusing on the lesson content, helping me prepare to teach learners of diverse abilities in a resource-constrained environment, and integrating 21st-century skills, GESI and SEL into the lessons.

ii. Differentiation

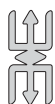
There are 70 learners in my class at diverse proficiency levels and learning styles, and the school is in a rural community. Provide four key considerations I should keep in mind to effectively cater for all learners while teaching the topic “Aircraft Weight and Weight Distribution”.

iii. Learning activities

Draft a three-step learning activities for teaching “Aircraft Weight and Weight Distribution” in alignment with the Teacher Manual. Structure the lessons under the headings: introductory activity, main lesson and closure. Match the activities with the essential questions and differentiation strategies. The lesson will last for 1 hour 40 minutes.

iv. Assessment tasks

Provide two discussion-based assessment tasks at DOK Level 3 that each can be completed within 20 minutes. Include a mark scheme for each task.



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.

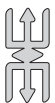
Assessment tasks

Revise the attached learning plan and make suggestions on how there can be equal opportunities for assessment.

**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**

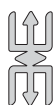
- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans

- 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 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: Propeller-Based Propulsion Systems

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 propeller-based propulsion systems 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 propeller-based propulsion systems (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. **Essential questions**

Generate 4 essential questions that will guide the teaching of “Propeller-based Propulsion Systems” to 70 diverse learners in a rural Ghanaian classroom with limited resources.

ii. **Differentiation**

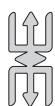
Generate 4 key notes on differentiation for teaching “Propeller-based Propulsion Systems” to my learners. Focus on practical, actionable strategies that ensure equal opportunities for all learners to engage with propeller concepts regardless of their background, ability level, or learning preferences.

iii. **Learning activities**

Generate 4 learning activities for a 1 hour 40 minutes lesson on “Propeller-based Propulsion Systems”. Match the lessons with the essential questions and differentiation strategies.

iv. **Assessment tasks**

Generate 2 formative assessment tasks for “Propeller-based Propulsion Systems” lessons content. Make accommodation for learners with different needs and include a mark scheme.



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 to 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

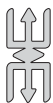
Are majority of my learners catered for in activities and assessment within the attached lesson plan? Make recommendation for improvement where necessary.

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.



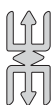
Note

- 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 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: Gas Turbine and Rocket Propulsion

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 gas turbine and rocket propulsion 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 gas turbine and rocket propulsion (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Generate 3 essential questions for teaching “Gas Turbine and Rocket Propulsion” to 70 diverse learners in a rural Ghanaian classroom without electricity.

ii. Differentiation

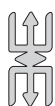
Generate 3 key notes on differentiation that will support teaching “Gas Turbine and Rocket Propulsion” in my class this week. Focus on practical strategies that allow all learners to build confidence and technical understanding in the area.

iii. Learning activities

Suggest 4 learning activities for teaching “Gas Turbine and Rocket Propulsion” to my learners in 1 hour 40 minutes using basic materials such as cardboard tubes, balloons, bicycle pump, string, markers, and tape. Structure the lessons under the headings: introductory activity, main lesson and closure.

iv. Assessment tasks

Generate a debate assessment task at DOK Level 3 for “Gas Turbine and Rocket Propulsion” lesson for 70 learners in rural Ghana.



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 to 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

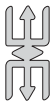
Analyse if my learning activities in my attached plan can be completed within 1 hour 40 minutes. Suggest the areas that require restructuring.

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).

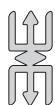
2.3 Share your experience with the group.

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 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: Calculating the Thrust of Jet Engines

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 calculating the thrust of jet engines 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 calculating the thrust of jet engines (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. **Essential questions**

Generate 3 essential questions for teaching “Calculating the Thrust of Jet Engines” to 70 learners with weak mathematical backgrounds in a rural Ghanaian classroom

ii. **Differentiation**

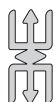
Suggest 3 key notes on differentiation for teaching “Calculating the Thrust of Jet Engines”. Focus on reducing mathematical anxiety while building confidence through collaborative problem-solving and structured mathematical discussions.

iii. **Learning activities**

Develop 3 learning activities for teaching a lesson of 1 hour 40 minutes on “Calculating the Thrust of Jet Engines” using talk for learning and problem-based learning. Match the activities to the essential questions and differentiation strategies.

iv. **Assessment tasks**

Generate a computational assessment task at DOK Level 2 for “Calculating the Thrust of Jet Engines” that can be completed in 15 minutes by learners with weak mathematical backgrounds. Provide the marking scheme to the task.



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 to 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

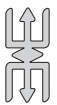
Do the essential questions in the attached learning plan encourage me to differentiate my lessons?

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.



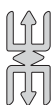
Note

- 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 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 the 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.

Assessment tasks

Is the formative assessment task in the attached learning plan appropriate for the achievement of the learning indicators?

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 end of semester Examination (50 minutes)

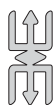
- 3.1** Refer to your Teacher Manual for the format of the end of semester examination and use the subject-specific App to review or develop your assessment tasks, mark schemes/rubrics, etc. (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

The Teacher Manual recommends that the end of examination for Week 12 should contain 40 multiple-choice and 2 essay type questions distributed 30–40–30 by percentage across DoK levels 1, 2 and (3&4). Provide the

1. 40 multiple-choice questions (with options arranged in alphabetical order)
2. 2 essay type questions
3. Mark scheme for grading the examination

The examination is for 2 hours. The developed assessment tasks should align with the learning indicators in weeks 1 to 11.



Note

In preparing for the 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**

How many DOK level 3 and 4 questions are in my examination, and what percentage do they contribute to the whole assessment? Review the task to suit the DoK levels distribution as proposed in the Teacher Manual.

- ii. Mark scheme and score distribution**

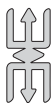
Review the mark scheme to ensure it is clear enough for grading various learners' responses.

- iii. Resources needed for assessment administration**

What material resources would learners require to complete the end of semester examination?

- iv. How to provide feedback**

How can I provide constructive feedback to learners about their strengths and areas that require improvement in the end-of-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 12 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.
 - Read PLC Session 13, Teacher Manual and related Learner Material (NTS 3a).
 - Bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).

- d. Identify areas you found challenging in planning and administering the assessment for discussion during the next session.

PLC Session 13: Preparing for Student Transcript Portal Assessment – Individual Project

1.0 Introduction (10 minutes)

- 1.1 Share one thing on assessment in PLC Session 12 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 13 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 13
- 2. prepare assessment tasks and rubrics for the individual project

Learning Outcome (LO): To review the learning plan for Week 13 and address any challenges in planning and developing assessment tasks for the individual 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

Do the differentiation strategies suggested in the attached learning plan allow learners to demonstrate understanding in ways suited to their learning styles?

Hint



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

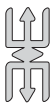
- a) essential questions
- b) learning activities
- c) assessment tasks, etc.

3.0 Prepare 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.

I would like my learners to build a model single-cylinder piston engine using locally available materials for their individual project work over 8 weeks. This will help deepen their understanding of the content of Section 3 (Week 9, especially) of the Teacher manual. The model doesn't necessarily have to work; it should just include all the essential engine parts. Develop this into a complete assessment item, providing guidelines for administration, providing feedback and rubrics for grading their work.



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

Review the task to ensure learners can complete it by Week 20, the task can be done.

ii. Mark scheme and score distribution

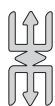
Consider reforming the rubrics is detailed enough for grading learners' output and efforts.

iii. Resources needed for assessment administration

Suggest the materials that may not be available in a rural Ghanaian locality for completing the task and how they can be improvised?

iv. How to provide feedback

Suggest strategies for providing feedback to learners after grading their work, that will sustain interest and support improve areas that require attention.



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 13 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 (NTS 3j, 3n).
 - Read PLC Session 14, Teacher Manual and related Learner Material (NTS 3a).
 - Bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - Identify areas you found challenging in your teaching and administration of the assessment for discussion during the next session.

PLC Session 14: Gyroscopic Flight Instruments

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 13
 - a. the challenges you faced
 - b. how you addressed them
- 1.2 Have you developed your learning plan for Week 14?
 - 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 14 on gyroscopic flight instruments 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 14 on gyroscopic flight instruments (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest 3 essential questions for teaching “Gyroscopic Flight Instruments” to 70 learners with no flight experience but with access to an aircraft hangar in the next town. Focus on making complex concepts accessible to all learners.

ii. Differentiation

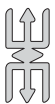
Provide 3 key notes on differentiation for teaching “Gyroscopic Flight Instruments” to 70 learners with no flight experience. Focus on making sophisticated flight instruments understandable through familiar objects while ensuring technical learning for all confidence levels and backgrounds

iii. Learning activities

Generate 4 sequential learning activities for teaching “Gyroscopic Flight Instruments” in 1 hour 40 minutes to 70 learners with no flight experience using talk-for-learning, experiential learning, and project-based learning approaches.

iv. Assessment tasks

Generate a 20-minute game-based assessment for “Gyroscopic Flight Instruments” that engages 70 learners in collaborative technical problem-solving.



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 to 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

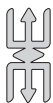
Review to confirm or otherwise if the learning activities in the attached learning plan make use of available resources? Make recommendations to improve the activities in the learning plan.

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



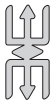
Note

- 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 14 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 15, 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 15: Engine indicating instruments

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 engine indicating instruments 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 engine indicating instruments (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

I am teaching “Engine Indicating Instruments” to 70 learners with no flight experience in a rural area. Suggest 3 essential questions that will support the attainment of the concepts in the lesson, focusing on making complex concepts accessible through familiar technology examples.

ii. Differentiation

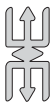
Suggest 3 key notes on differentiation that will support monitoring of sophisticated engine by 70 learners with diverse learning abilities understandable through familiar rural technology.

iii. Learning activities

The lesson for the week will last for 1 hour 40 minutes. Generate 4 sequential learning activities for teaching “Engine Indicating Instruments” using talk-for-learning and experiential learning approaches. Incorporate hands-on activities and practical applications using simple measuring devices.

iv. Assessment tasks

The concept for the week is “Engine Indicating Instruments”. Generate an assessment task that requires strategic thinking and reasoning about engine monitoring in a rural Ghana aviation context. Provide rubrics for analysing learners’ responses.



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 to 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

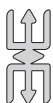
Does the summative assessment task in the attached learning plan encourage critical thinking?

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).

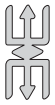
2.3 Share your experience with the group.

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 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: Features of Flight Data Recorders/Cockpit Voice Recorders

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 features of flight data recorders/cockpit voice recorders 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 features of flight data recorders/cockpit voice recorders (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest 5 essential questions for teaching “Features of Flight Data Recorders/Cockpit Voice Recorders” to 70 learners who have never seen an aircraft. The questions should promote understanding of the concepts for non-aviation learners and support multiple ways to demonstrate learning.

ii. Differentiation

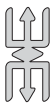
Provide 5 key notes for differentiating lessons on “Features of Flight Data Recorders/Cockpit Voice Recorders” for 70 learners who have never seen aircraft. Ensure technical learning for all comfort levels and backgrounds.

iii. Learning activities

Develop three learning activities which are well sequenced to support the teaching a 1 hour 40 minutes lesson on “Features of Flight Data Recorders/Cockpit Voice Recorders” using talk-for-learning and experiential learning approaches with overhead projector access over.

iv. Assessment tasks

Create a 15-minute assessment task at DOK Level 2 on “Features of Flight Data Recorders/Cockpit Voice Recorders” that requires analysis and application of recorder features. Include a mark scheme for grading learners’ responses.



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 to 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.

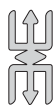
Differentiation

Revise the tasks in the attached learning plan and make sure they cover different complexity levels?

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**

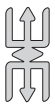
- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans

- 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 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: Case Studies on the Use of Flight Data Recorders in Accident/ Incident Investigations

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 case studies on the use of flight data recorders in accident/incident investigations 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 case studies on the use of flight data recorders in accident/incident investigations (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Suggest four essential questions regarding lessons on “Case studies on the use of flight data recorders in accident/incident investigations”. Focus on the content of the lesson, preparing to teach learners of diverse abilities and integrating 21st century skills, GESI, SEL and national values into the lesson.

ii. Differentiation

Provide four points to keep in mind to cater for all learners in my class as I teach “Case studies on the use of flight data recorders in accident/incident investigations” this week. My learners have different proficiency levels; different learning styles; and most of them have never had flight experience.

iii. Learning activities

Propose activities for teaching “case studies on the use of flight data recorders in accident and incident investigations,” in alignment with the Teacher Manual. Consider a class of 70 learners with varying proficiency levels and limited internet access.

iv. Assessment tasks

Craft one case study assessment tasks for Week 17. It should be completed within 30 minutes. Include a mark scheme as well.



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 to 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 and suggest areas that I need to work on to make it appropriate for the attainment of the indicators?

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).

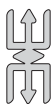
2.3 Share your experience with the group.

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 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 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 the 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.

Essential questions

Do the essential questions in the attached learning plan encourage me to explore alternative approaches to teaching this week?

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 for Mid-Semester Examination (50 minutes)

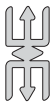
- 3.1** Refer to your Teacher Manual for the format of the mid-semester examination and use the subject-specific App to review or develop your assessment tasks, mark schemes/rubrics, etc. (NTS 2a-2c, 2e-2h and 3j-3q).

E.g.

The Teacher Manual recommends that the mid-semester examination for Week 18 should contain 20 multiple-choice and 2 essay type questions in a 30-40-30 ratio across DoK levels 1, 2 and (3 & 4). Provide the

- 1.** 20 multiple-choice questions (with options arranged alphabetically)
- 2.** 2 essay type questions.

The examination is for 1 hour. The developed assessment tasks should align with the learning indicators in weeks 13 to 17. Provide a mark scheme for the questions as well.



Note

In preparing for the 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 distribution of my assessment items correspond to 30% to be DOK level 1, 40% to be DOK level 2 and 30% DOK levels 3 & 4?

- ii. Mark scheme and score distribution**

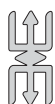
Suggest alternative rubrics for grading the essay questions on the mid-semester exam taking into consideration alternative presentation style by learners.

- iii. Resources needed for assessment administration**

What special resources will learners require to complete the mid-semester examination.

- iv. How to provide feedback**

What should I include when providing feedback to learners regarding 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 18 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 (NTS 3j, 3n).
 - Read PLC Session 19, Teacher Manual and related Learner Material (NTS 3a).
 - Bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).

- d. Identify areas you found challenging in planning and administering the assessment for discussion during the next session.

PLC Session 19: International Aviation Organisations

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 international aviation organisations 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 international aviation organisations (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. **Essential questions**

Suggest four essential questions to help me prepare to teach International Aviation Organizations this week. Questions should touch on content, GESI and 21st century skills and assisting learners who struggle with the English language.

ii. **Differentiation**

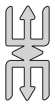
Provide five points I should keep in mind to cater for all learners in my class as I teach “International Aviation Organisations” this week. My learners have different proficiency levels and learning styles. In addition, most of them have difficulty with the English language.

iii. **Learning activities**

Propose activities to teach “International Aviation Organisations” in line with the Teacher Manual. I have a class of 70 learners at different proficiency levels. Place a focus on group activities.

iv. **Assessment tasks**

Provide one dramatisation assessment task that I can use this week. The drama performance should last at most 30 minutes. In addition, include rubrics for grading the learners as they perform.



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 to 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

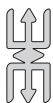
Do the essential questions in the attached learning plan encourage me to plan for the weak English speakers in my class? Suggest areas that needs to be reconsidered?

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.



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).

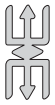
2.3 Share your experience with the group.

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: GCAA RPAS Directives

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 GCAA RPAS directives 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 GCAA RPAS directives (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest four essential questions that supports a lesson on “GCAA RPAS directives.” Two of these should border on the content of the lesson. The third must help me prepare to teach learners of diverse abilities in a resource-constrained environment. The last question must help me integrate the 21st century skills, SEL and GESI into the lesson.

ii. Differentiation

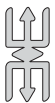
Provide four points I should keep in mind to cater for all learners in my class as I teach “GCAA RPAS directives” this week. My learners have different proficiency levels and learning styles; most of them have never seen a drone.

iii. Learning activities

Propose a well-sequenced activities to teach “GCAARPAS directives” in line with the Teacher Manual. I have a class of 70 learners at different proficiency levels. Consider that internet access is limited at the school.

iv. Assessment tasks

Provide a assessment task on “GCAA RPAS directives” that will incorporate checklist. The task should be completed within 20 minutes. Include a mark scheme as well.



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 to 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 assessments in the attached learning plan ensuring that they will be appropriate to support learning.

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

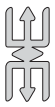


- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills 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 20 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. Read PLC Session 21, 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: UAV Operation Safety

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

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

Purpose: The purpose for this session is to populate the learning planner for Week 21 on UAV Operation Safety 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 UAV operation safety (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Generate 5 essential questions for a lesson on “UAV operation safety” for rural high school learners that address: (1) how learners can understand the topic despite never seeing drones, (2) connections between familiar practices and new concepts, (3) critical thinking while promoting inclusivity, (4) empathy and social responsibility, and (5) collaborative skills development.

ii. Differentiation

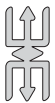
Create 5 differentiation strategies for 70 learners studying “UAV operation safety” that address visual/auditory/kinaesthetic learning styles, ensure gender equality and challenge stereotypes, connect to local contexts, provide peer support systems, offer multiple demonstration methods, and respect cultural values.

iii. Learning activities

Design a well-sequenced set of 5 activities for teaching “UAV operation safety” with talk-for-learning as one of the pedagogical strategies. Ensure gender-balanced role rotation and connections to familiar community safety practices.

iv. Assessment tasks

Design a summative peer assessment task for “UAV operation safety” where learners work in pairs to create a practical product relevant to their community. Provide an appropriate rubric to be used by learners to evaluate another pair’s work.



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 to 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

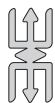
Do the “keynotes on differentiation” in the attached learning plan reflect in the activities? If they don’t adjust my activities to incorporate the keynotes on differentiation

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.



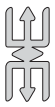
Note

- 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 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: Introduction to Flight Simulators

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 introduction to flight simulators 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 introduction to flight simulators (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Generate 5 essential questions to consider in preparing to teach “Introduction to Flight Simulators” (Week 22) to learners in a rural community with limited simulation resources. Questions should help me incorporate GESI, SEL and national values into the lesson as well.

ii. Differentiation

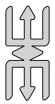
Suggest five ways to differentiate a lesson on “Introduction to Flight Simulators” to 70 learners at varying proficiency levels and learning styles.

iii. Learning activities

Design a lesson to teach “Introduction to Flight Simulators” to 70 learners with limited simulation resources. Focus on experiential learning approaches.

iv. Assessment tasks

Provide one simulation task related to the lesson for this week on “Introduction to Flight Simulators” to be completed by learners within 30 minutes. Include a mark scheme.



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 to 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

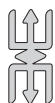
Revise the activities in the attached learning plan and suggest simulation resources to support the attainment of.

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).

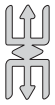
2.3 Share your experience with the group.

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 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: Introduction to Multirotor UAV Flight Simulation

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 introduction to multirotor UAV flight simulation 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 introduction to multirotor UAV flight simulation (NTS 1a, 2b, 2c, 2e–2h and 3a–3q).

E.g.

i. Essential questions

Create 4 essential questions for teaching “Introduction to Multirotor UAV Flight Simulation” to 70 diverse learners, including those with limited technology experience.

ii. Differentiation

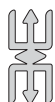
Create 3 key notes on differentiation for teaching “Introduction to Multirotor UAV Flight Simulation” to a class of 70 mixed-gender learners, most of whom have no gaming experience.

iii. Learning activities

Create a detailed set of learning activities for a 1 hour 40-minute lesson on “Introduction to Multirotor UAV Flight Simulation” to 70 learners using experiential learning pedagogy. Consider that there are limited computers available for flight simulation and that the school is in a rural setting.

iv. Assessment tasks

Create a summative assessment task using “Dramatic Monologue” for “Introduction to Multirotor UAV Flight Simulation” that evaluates learners’ understanding of multirotor controls and safety practices. Include a mark scheme.



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 to 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

Do the essential questions in the attached learning plan encourage me to improvise for the limited number of flight simulation computers? What alternative question can I set to direct content explanation.

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.

Note

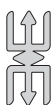


- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills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

Learning activities

Do the learning activities in the attached learning plan include content and pedagogy that align with what is required by the Teacher Manual?

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 End of Semester Examination (50 minutes)

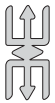
- 3.1** Refer to your Teacher Manual for the format of the end of semester examination and use the subject-specific App to review or develop your assessment tasks, mark schemes/rubrics, etc. (NTS 2a–2c, 2e–2h and 3j–3q).

E.g.

The Teacher Manual recommends that the end of semester examination in Week 24 should contain 40 multiple-choice and 2 essay type questions distributed 30%, 40% and 30% across DoK levels 1, 2 and (3 & 4). Provide the

1. 40 multiple-choice questions (with options listed alphabetically)
2. 2 essay type questions
3. Mark scheme for the examination

The examination is for 2 hours. The assessment tasks developed should align with the learning indicators in weeks 13 to 24.



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**

Can you confirm if the DOK level 2 questions provided form about 40% of the task for the examination?

- ii. Mark scheme and score distribution**

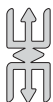
Is the allocation of marks per question commensurate with their DOK levels?

- iii. Resources needed for assessment administration**

What material resources will learners require to complete the examination?

- iv. How to provide feedback**

Suggest areas to include when providing feedback to learners on the examination taking into consideration SEL.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

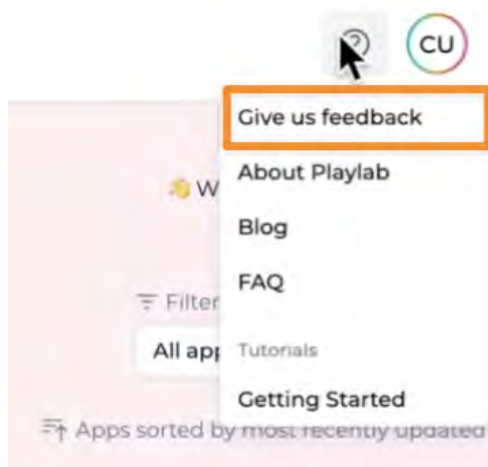
- 4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2** Identify a colleague to observe your lesson in relation to PLC Session 24 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3** Remember to mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).

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

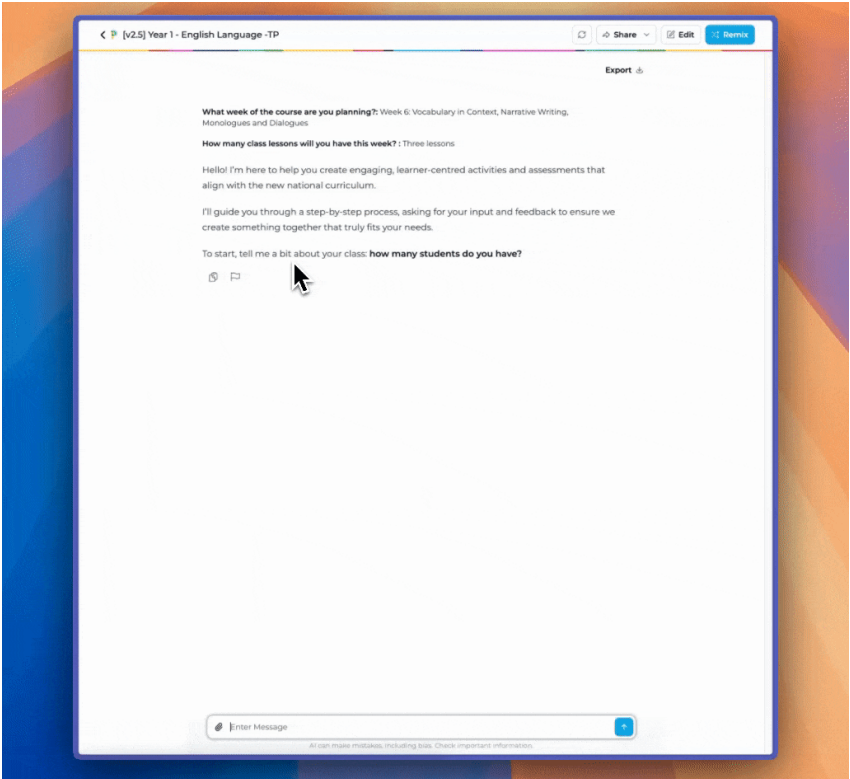
Please share any screenshots or videos that help visualize your feedback.

 **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



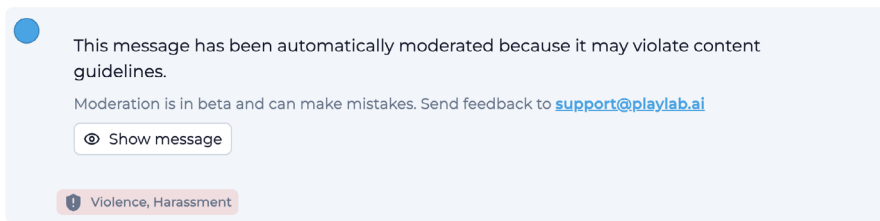
- Click to report biased, inaccurate, or inappropriate messages.
- Best for: Immediate issues with app responses
- There is also in app moderation for both user messages and AI generated responses. You can read more about it here.

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
A3C	7 1
KIPP NYC Restorative Plan Designer	8/21/2025
A3C	5
KIPP NYC Restorative Plan Designer	8/15/2025
M	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 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

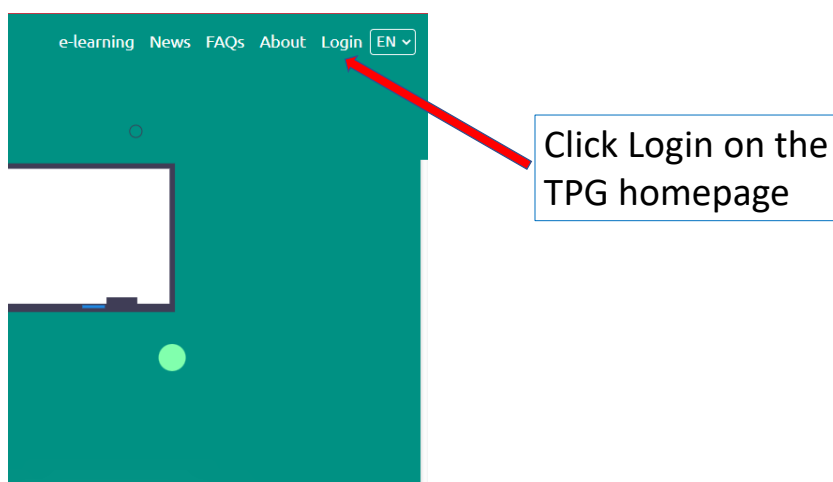
22. Areas for development

23. Next steps for teacher

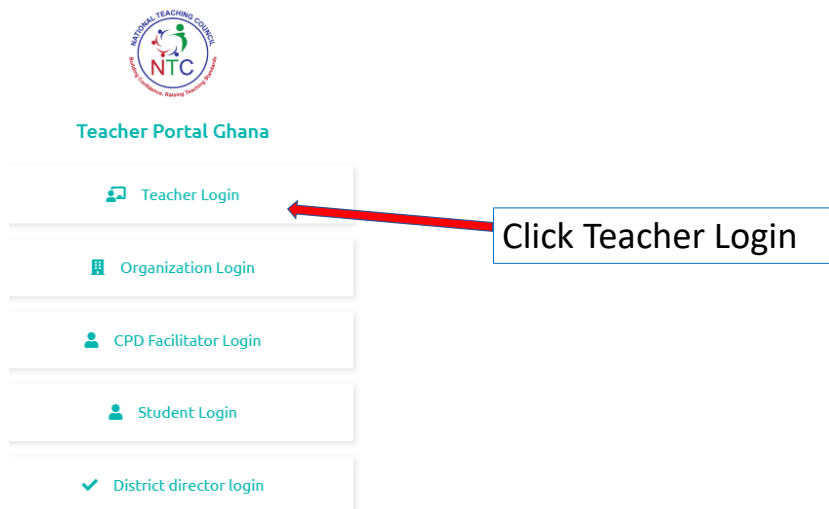
Additional Notes (on teacher's actions, the flow of activities, etc.)

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

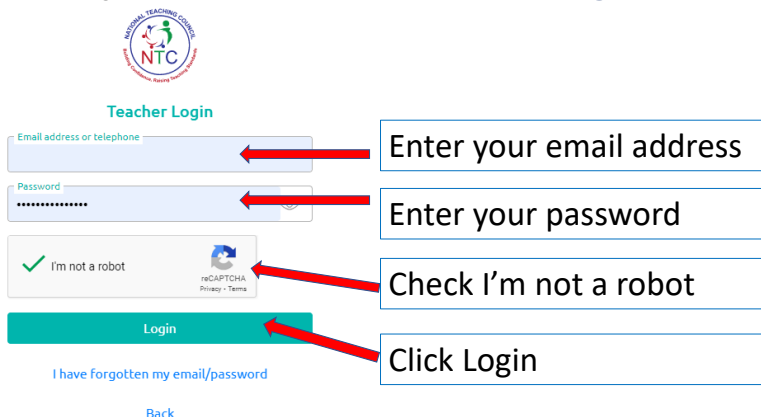
1. Visit tpg.ntc.gov.gh and click Login



2. On the Login page, click Teacher Login



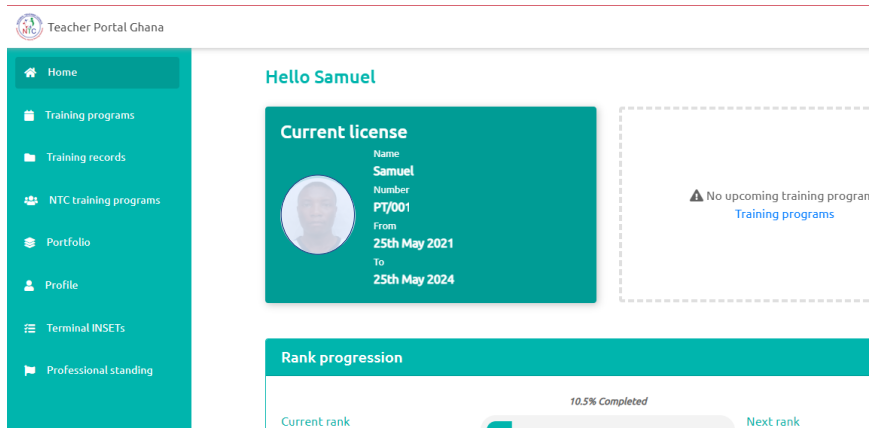
3. On the **Teacher Login** page enter your email address and password and then click **Login**



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 Area:**
 - 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** (with link to [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 screenshot shows the 'Teacher Portal Ghana' interface. On the left is a teal sidebar menu with options: Home, Training programs, Training records, NTC training programs, Portfolio, Profile, Terminal INSETs, and Professional standing. A red arrow points from the 'Training records' option to a text box. 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 on the right groups these programs under a text box. The total points are 1.8988.

Teacher Portal Ghana

Training records

Records for training programs registered and/or attended

Total points: 1.8988

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

Click to view training records

List of training programs

THANK YOU

