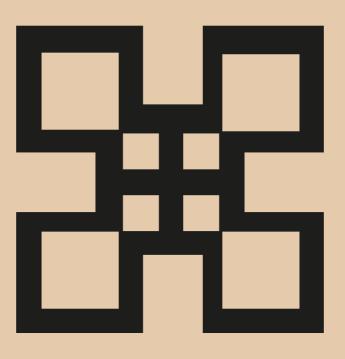
Professional Learning Community Handbook

Information Communication Technologyy

Year Two









Professional Learning Community Handbook

Information Communication Technology

Year Two









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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.

Haruna Iddrisu, MP

Minister of Education

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Links to APPs

Year One App



https://www.playlab.ai/project/cmd952nfd05sdju0uns2559uz

Year Two App



https://www.playlab.ai/project/cmekgp6rq0bjkp20u76nao8s4

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
- West African Examinations Council (WAEC) Scheme of Assessment and Detailed Syllabus
- 8. Learning Planning Template
- 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/cmekgp6rqobjkp20u76nao8s4



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

E.g.

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



Note

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

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

E.g.

a. Learning activities

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

b. Assessments

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

c. Differentiation strategies

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

Hint



Remember to askyour 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.

- 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

- 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. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your assessment task, rubrics/mark scheme and how to score them appropriately
- **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: Spreadsheet Application

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 populate a learning planner for Week 1 on spreadsheet application 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 spreadsheet application 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 spreadsheet application (NTS 3a-3q).

E.g.

i. Learning activities

Create 4 hands-on learning activities for teaching spreadsheet application in 60 minutes to learners with diverse needs and limited resources. Take into consideration crosscutting issues. The class size is 43.

ii. Assessment tasks

Generate a 20-minute formative assessment task for learners to discuss spreadsheet application.

iii. Differentiation

Based on the learning task for Week 1 focal area of the Teacher Manual, suggest an appropriate 30-minute differentiated strategy for the learning task taking into consideration the learning abilities of my 36 learners.

iv. Essential questions

In planning to teach Week 2 on spreadsheet application, recommend 2 suitable essential questions to guide the lesson for both the teacher and the learners, 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. Click the link or scan the QR code to download the template.

 https://curriculumresources.edu.gh/wpcontent/uploads/2025/09/Year-TwoLesson-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 found challenging in your teaching for discussion during the next session.

PLC Session 2: Preparing for Student Transcript Portal Assessment – Portfolio

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 portfolio assessment

Learning Outcome (LO): To review the learning plan for Week 2 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 assessment

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

I have attached my learning plan for Week 2. Review the learning activities in my plan and make the necessary recommendation to make it GESI-responsive. Take into consideration other cross-cutting issues and national values, etc.

Hint



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

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

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

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

E.g.

Portfolio assessment

Examine the portfolio assessment task and the corresponding mark scheme/rubrics provided in Section 1, Appendix A of the Teacher Manual. Identify any areas that could be improved to better support the learning objectives. In your review, consider integration of crosscutting issues in the portfolios, ensuring that these issues are properly addressed and reflected in the learner's work, etc.



Note

One chat 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 an appropriate task that will be considered in the portfolio to cater for all the learning needs and abilities of the learners taking into consideration SEL, SEN and 21st century skills, etc.

ii. Mark scheme and score distribution

Recommend a suitable mark scheme/rubric that has a fair score and DoK level distribution, etc.

iii. Resources needed for assessment administration

Suggest appropriate resources needed for the administration of the portfolio taking into consideration the available no cost materials, etc.

iv. How to provide feedback

Help me with suitable feedback that will enhance future teaching and learning, etc.



Note

Use the responses to complete your plan

4.0 Reflection (10 minutes)

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 2 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
 - b. read PLC Session 3, Teacher Manual and related Learner Material (NTS 3a).
 - c. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - **d.** identify areas you found challenging in your teaching and administration of the individual portfolio assessment for discussion during the next session.

PLC Session 3: Debugging and Troubleshooting Formulas

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 2
 - a. the challenges you faced
 - b. how you addressed them
- **1.2** Have you developed your learning plan for Week 3?
 - 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 <u>have not</u> 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 3 on debugging and troubleshooting formulas 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 3 on debugging and troubleshooting formulas (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Based on the content of Week 3 on debugging and troubleshooting formulas, suggest 2 essential questions, 1 tailored to the teacher and another to the learner.

ii. Differentiation

With reference to Week 3 of the Teacher Manual, suggest appropriate differentiated strategies for teaching a 60-minute lesson to my 42 learners on debugging and troubleshooting formulas.

iii. Learning activities

Recommend 3 systematic learning activities for teaching debug and troubleshooting formulas with 40 computers to 47 learners where 17 of them are very weak at mouse-skill.

iv. Assessment tasks

Design a suitable 20-minute assessment task to support learners in learning debugging and troubleshooting, 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.

Hint



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Learning activities

Examine the learning activities in my learning plan for Week 3 on debugging and troubleshooting formulas in line with the Teacher Manual and suggest areas for improvement to suit 26learners with diverse learning needs and styles. Pay attention cross-cutting issues throughout the activities, etc.

Hint



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

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



Note

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

- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.
- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- **2.3** Share your experience with the group.

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 3 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - read PLC Session 4, 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 found challenging in your teaching for discussion during the next session.

PLC Session 4: Generate and Interpret Graphs and Charts

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 <u>have not</u> 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 generate and interpret graphs and charts 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 generate and interpret graphs and charts (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Create 3 essential question that enhance lesson delivery and attainment of concept generating graphs and charts.

ii. Differentiation

How can I adapt include all learners in my Week 4 lesson on identifying and selecting the most suitable chart types for my 3 learners with visual impairment?

iii. Learning activities

Develop 40-minute learner centred activities for teaching "generating and interpreting graphs and chart for mixed ability learners with no digital resources, taking into consideration cross cutting issues and 21st century skills.

iv. Assessment tasks

Create three 15- minute formative assessment task that support the learning of "generating and interpreting graphs and charts". The class size is 44 with 20 slow learners, 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.

Hint



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Essential questions

Review the 2 essential questions in the attached learning plan on generating and interpreting graphs and charts for Week 4 and make recommendations where necessary, etc.

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 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).
 - identify areas you found challenging in your teaching for discussion during the next session.

PLC Session 5: Preparing for Student Transcript Portal Assessment – Group Project

1.0 Introduction (10 minutes)

- **1.1** Share one thing on assessment in PLC Session 4 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 5 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 5
- 2. prepare assessment tasks and rubrics for group project

Learning Outcome (LO): To review the learning plan for Week 5 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

With reference to the uploaded Week 5 learning plan, does the essential questions cater for the diverse needs of the learners? Suggest alternatives that will best direct the enactment of the activities in class, etc.

Hint



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

- a. learning activities
- 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.

Group Project

Review the project task and mark scheme/rubrics in section one, Appendix B of the Teacher Manual, identify areas for improvement and consider SEL, GESI and 21st century skills, etc.



Note

One chat 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

Assess the structure and focus of the proposed assessment tasks. Are they well-balanced in terms of difficulty and the skills required?

How can the tasks be refined to better match the learning outcomes and provide a fair challenge for all learners? etc.

ii. Mark scheme and score distribution

Review the mark scheme and ensure the score distribution reflects the cognitive complexity of each task. What adjustments would you recommend to create a fair balance across different assessment components? etc.

iii. Resources needed for assessment administration

Review the resources outlined in the learning plan for assessment on whether they are appropriate and adequate for a class of 55 learners. etc.

iv. How to provide feedback

Suggest a clear and specific feedback that focus on helping learners understand their strengths and areas for improvement, etc.



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 5 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).
 - b. read PLC Session 6, 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).
 - d. identify areas you found challenging in your teaching and administration of the group project assessment 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
- prepare assessment tasks and rubrics for mid-semester examination

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

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

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

2.0 Reviewing the Learning Plan (20 minutes)

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

E.g.

Essential questions

In planning to facilitate a 60 minutes lesson of a focal area in Week 6 of the Teacher Manual, suggest 3 essential questions which promote problem-solving, analysis and synthesis, etc.

Hint



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

- a. learning activities
- 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.

From Week 6 of the Teacher Manual, the structure and guidelines of the mid-semester examination is as follows

- a. 10 multiple-choice questions
- **b.** 4 essay type questions
- c. 3 Test of Practical questions

Duration is 1hour 30 mins and total score is 40 marks. Developed the assessment tasks and a mark scheme/rubric where applicable for the that align with the learning indicators in weeks 1 to 5, etc.



Note

In preparing for mid-semester or end of semester examination, one chat 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 and 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

With reference to the mid-semester examination structure of the Teacher Manual, check if the multiple-choice questions, essay type questions and test of practical question you have suggested are appropriately designed at the distribution of DoK Levels (level 1:30%, level 2:40%, level 3:30%), etc.

ii. Mark scheme and score distribution

Review the mark scheme for the assessment task to see if the score distribution aligns with the level of difficulty of each task. Make appropriate amendment in the mark scheme and score distribution if the need be, etc.

iii. Resources needed for assessment administration

Recommend appropriate low/no cost material resource needed to administer the mid-semester examination assessment, etc.

iv. How to provide feedback

Suggest feedback plan that will encourage learners to reflect on their mistakes and provide actionable steps to enhance their learning in future assessments, etc.

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 6 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
 - b. read PLC Session 7, Teacher Manual and related Learner Material (NTS 3a).
 - c. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).

d. identify areas you found challenging in your planning and administering of the mid-semester examination assessment for during the next session.

PLC Session 7: Apply Sorting and Filtering Operations

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?
 - 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 <u>have not</u> 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 apply sorting and filtering operations 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 apply sorting and filtering operations (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop 2 essential questions that will guide the lesson on applying sorting and filtering operations in a 60-minute study. learners.

ii. Differentiation

Recommend appropriate differentiated strategies that enable all 46 learners with mixed abilities understand and apply sorting and filtering operations.

iii. Learning activities

Formulate 3 well sequenced learning activities for teaching and learning sorting and filtering operations for 47 learners taking into consideration cross-cutting issues and national values.

iv. Assessment tasks

Provide 5 exit ticket questions at DOK levels 1,2 and 3 for climaxing a lesson on sorting and filtering operations, etc.



Note

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

Hint



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Differentiation

Analyse my Week 7 learning plan and recommend 2 differentiated strategies that can cater for all the learning needs of the learners, taking into consideration GESI, SEL and SEN, etc.

Hint



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

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



Note

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

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

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

- **4.1** 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 found challenging in your teaching for discussion during the next session.

PLC Session 8: Save and Print Workbooks and Worksheets

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?
 - 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 <u>have not</u> 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 save and print workbooks and worksheets 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 save and print workbooks and worksheets (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

I need 2 essential questions for my Week 8 learning plan. One question tailored to the learner to encourage critical thinking and discussion, the other to the teacher to support in content delivery.

ii. Differentiation

Considering the GESI framework, SEL, SEN, formulate 2 differentiated strategies for my Week 8 learning plan on save and print workbooks and worksheets, accommodating 4 learners who are new to using computers.

iii. Learning activities

Design 3 learner-based activities sequenced in complexity for teaching a 30-minute lesson on save and print workbooks and worksheets in Week 8 using readily available low/no cost material in Tafo Kumasi.

iv. Assessment tasks

Generate a 25-minute, step-by-step formative assessment tasks that assess the practical understanding of saving and printing workbooks and worksheets, 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.

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

Examine the assessment task of my attached Week 8 learning plan to verify if it measures learning at the appropriate cognitive levels (DOK)? Make the necessary recommendations where applicable, etc.

Hint



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

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



Note

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

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

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

- **4.1** 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:
 - 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 found challenging in your teaching for discussion during the next session.

PLC Session 9: The Use of Technology Across Various Sectors

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?
 - 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 <u>have not</u> prepared your learning plan

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

Purpose: The purpose for this session is to populate the learning planner for Week 9 on the use of technology across various sectors using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 9 on the use of technology across various sectors (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop 4 essential questions based on the focal areas in Week 9 that will guide the effectiveness of the attainment of the learning indicators, etc.

ii. Differentiation

Provide differentiation strategies for a 35-minute lesson on the use of technology across various sectors to a class of 41 learners with varying levels of ability or learning styles and 3 visually impaired learners, etc.

iii. Learning activities

Create 3 GESI-responsive learning activities for a 35-minute lesson that address the use of technology across various sectors for diverse learners using cloud-based tools, considering GESI, SEL and 21st century skills, etc.

iv. Assessment tasks

Design 3 appropriate 25-minute assessment tasks that will help my 57 learners understand the use of technology across various sectors. Develop mark scheme/rubrics for the 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.

Hint



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Learning activities

Verify if my 30-minute learning activities in the learning plan on the use of technology across various sectors is alignment with the Teacher Manual and suggest areas for improvement, etc.

Hint



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

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



Note

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

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

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

- **4.1** 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 found challenging in your teaching for discussion during the next session.

PLC Session 10: The Impact of Technology Across Key Sectors

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?
 - 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 <u>have not</u> 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 the impact of technology across key sectors 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 the impact of technology across key sectors (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Create 4 essential questions for Week 10 of the Teacher Manual for a 60-minute lesson for a class size of 46.

ii. Differentiation

Provide 3 differentiated strategies that will be appropriate for teaching a class of 43 in a 60-minutes lesson for Week 10 on impact of technology across key sectors. Considering SEL and SEN.

iii. Learning activities

Design a set of 4 learner-centred learning activities in a 60-minute lesson that will support learners to demonstrate how technology has transformed a sector (e.g., healthcare or finance). Available materials for the lesson include charts, markers and computers.

iv. Assessment tasks

Create a visual representation (e.g., flowchart or infographic) assessment task for Week 10 lesson that compares how technology is impacting three sectors: education, healthcare and business, 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.

Hint



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Differentiation

Evaluate whether the learning activities in the attached learning plan are effectively differentiated to accommodate learners of varying abilities. Provide recommendations for introducing flexibility in how learners can complete these activities based on their individual needs and strengths, etc.

Hint



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

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



Note

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

- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.
- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- **2.3** Share your experience with the group.

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

- **4.1** 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:
 - 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 found challenging in your teaching for discussion during the next session.

PLC Session 11: Technologies Used by Home, Small/Home Office, Mobile, Power and Enterprise Users

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?
 - 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 <u>have not</u> 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 technologies used by home, small/home office, mobile, power and enterprise users 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 technologies used by home, small/home office, mobile, power and enterprise users (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

With reference to Week 11 of the Teacher Manual on technologies used by home, small/home office, mobile, power and enterprise users, craft three essential questions that will guide the attainment of the LI for the week.

ii. Differentiation

Develop 3 differentiation strategies for Week 11 learning plan taking into consideration technologies used by home, small/home office, mobile, power and enterprise users. There are 32 learners in my class. 15 of the learners are slow learners, 10 intermediate learners and 7 advanced learners. The duration is 60 mins.

iii. Learning activities

Suggest learning activities for the focal area; technologies used by home, small/home office, mobile, power and enterprise users for a 60-minute lesson. You should include hands-on ICT activities that foster interactive learning and practical application of the concepts.

iv. Assessment tasks

The focal area is technologies used by home, small/home office, mobile, power and enterprise users. Recommend 3 assessment questions each at DoK levels 2 and 3 with reference to the Teacher Manual and Learner Material. Provide rubrics/ mark scheme to the 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.





Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Assessment tasks

Review the attached Week 11 learning plan and suggest areas to be improved in the assessment. Check for a fair distribution of the DoK levels, etc

Hint



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

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



Note

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

- ii. Transfer the information from your SS App into your learning planner template to complete your plans
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.
- 2.2 Identify a challenging area or issue and chat with your subject specific App for steps on how to address it for effective lesson delivery (NTS 3j).
- 2.3 Share your experience with the group.

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

- **4.1** 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 found 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
 - 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
- prepare assessment tasks and rubrics for end of semester examination

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

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

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

2.0 Reviewing the Learning Plan (20 minutes)

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

E.g.

Learning activities

With reference to the uploaded learning plan, check the learning activities and recommend alternatives that better encourage both collaboration and individual exploration of the content, etc.

Hint



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

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

3.0 Prepare 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.

With reference to Week 12 of the Teacher Manual, the structure and quidelines of the end of semester examination is as follows:

- 1. Section A 40 Multiple Choice
- 2. Section B 5 Essay Questions
- 3. Section C 2 Practical questions

Duration is 3 hours: 30 mins and total score is 100 marks. Design a comprehensive end of semester examination summative assessment tasks that align with the learning indicators in Weeks 1 to 11 for 46 all male leaners.



Note

In preparing for mid-semester or end of semester examination, one chat 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 and 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

Provide recommendations on how to adjust the assessment structure or tasks to adhere to the DOK level distribution, ensuring a balanced approach to assessing students' recall, application and higher-order thinking skills, etc.

ii. Mark scheme and score distribution

Recommend adjustments to the mark scheme and score distribution for the mid-semester assessment, ensuring that it properly reflects the DOK levels (level 1:30%, level 2:40% and level 3:30%), etc.

iii. Resources needed for assessment administration

Recommend appropriate resources that are suitable for the conduct of the mid-semester examination, ensuring all learners can participate effectively in the assessment, etc.

iv. How to provide feedback

Suggest effective feedback that address both correct and incorrect responses in a way that helps learners understand the reasoning behind their responses, etc.

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 12 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
 - b. read PLC Session 13, Teacher Manual and related Learner Material (NTS 3a).
 - c. bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).

d. identify areas you found challenging in your planning and administering of the end of semester examination assessment for discussion during the next session.

PLC Session 13: Effective Web Navigation Using Addresses, Browsers, Web Apps and Mobile Platforms

1.0 Introduction (5 minutes)

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

Hint



You cannot conduct PLC on Activity 2.0B if you <u>have not</u> prepared your learning plan

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

Purpose: The purpose for this session is to populate the learning planner for Week 13 on effective web navigation using addresses, browsers, web apps and mobile platforms using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 13 on effective web navigation using addresses, browsers, web apps and mobile platforms using the subject specific App. (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Create 2 essential questions for the teacher and the learner relating to the focal area 1 of Week 13 on effective web navigation using addresses, browsers, web apps and mobile platforms.

ii. Differentiation

Provide 3 differentiated strategies that will address different ability levels of 48 learners in Week 13 lesson on understanding web addresses. Consider GESI, SEL and SEN.

iii. Learning activities

Provide 4 experiential learning activities for a lesson in Week 13 on uses of web browsers to be taught in 60 minutes to 51 learners with 30 learners being slow, 15 being average and 6 being fast learners.

iv. Assessment tasks

Design 2 each of DoK levels 1 and 2 assessment tasks for Week 13 focal areas. Please include clear rubrics and mark scheme, 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.

Hint



Move to Activity 3.0

2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 minutes)

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

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

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

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

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

E.g.

Learning activities

Examine the learning activities in the attached learning plan for Week 13. Recommend 2 areas that need improvement to cater for limited resources and incorporate 21st Century skills, etc.

Hint



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

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



Note

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

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

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

- **4.1** 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:
 - a. read PLC Session 14, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - identify areas you found challenging in your teaching for discussion during the next session.

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

1.0 Introduction (10 minutes)

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

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

- 1. review the completed learning plan for Week 14
- 2. prepare assessment tasks and rubrics for individual project

Learning Outcome (LO): To review the learning plan for Week 14 and address any challenges in planning and developing assessment tasks for the 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

Evaluate the learning activities and assessments in Week 5 learning plan for their inclusivity. How well do they cater for learners with special needs, advanced learners, and those with limited resources? Suggest improvements for better differentiation, etc.

Hint



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

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

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.

Individual Project

Develop the individual project assessment and mark scheme/rubrics for Week 14 of the Teacher Manual. Ensure they align with the learning outcomes and fairly assess the learners' understanding, skills and application in the project. Consider cross cutting issues, SEL and SEN, etc.



Note

One chat 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

Checktheassessmenttasks suggested to verify if they are appropriate for the intended learning outcomes. Provide suggestions for adjusting the tasks to better cater for diverse learner needs and learning contexts, etc.

ii. Mark scheme and score distribution

Examine the mark scheme and score distribution for the assessment tasks. Does the weighting of marks align with the complexity and DOK levels of each task? Suggest any adjustment to make the score distribution more balanced and equitable, etc.

iii. Resources needed for assessment administration

Consider the resources needed to effectively administer the assessment tasks. What modifications can be made to ensure all learners have equal opportunities to engage with the assessment tasks, regardless of resource limitations? etc.

iv. How to provide feedback

Recommend a targeted feedback process to ensure it supports positive reinforcement and helps learners address their learning gaps effectively, etc.



Note

Use the responses to complete your plan

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 14 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
 - b. read PLC Session 15, Teacher Manual and related Learner Material (NTS 3a).
 - c. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - d. Identify areas you found challenging in your teaching and administration of the individual project assessment for discussion during the next session.

PLC Session 15: Website Features and Multimedia Content

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?
 - 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 <u>have not</u> 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 website features and multimedia content 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 website features and multimedia content (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop 3 essential questions related to Focal Area 1 of Week 15 on web addresses noting that that there is no access to digital resources for the exploratory and practical sessions. The total teaching time is 120 minutes, and the class consists of 31 learners.

ii. Differentiation

Help me with differentiated strategies that will be appropriate for teaching a 60-minute lesson based on the focal area 1 of Week 15 in the Teacher Manual on website responsiveness. Consider SEL, SEN and GESI.

iii. Learning activities

Suggest 2 collaborative and exploratory based activities to teach website features and multimedia content suitable for 35 students in 60 minutes.

iv. Assessment tasks

Create 3 formative assessment tasks for learning website features and multimedia content for Week 15 to be done in 35 minutes by 46 learners with varying learning abilities, 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.

Hint



2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Essential questions

I have attached my learning plan for Week 15 and verify if they are appropriate for guiding the lesson attainment of Lis. Recommend where necessary, 2 suitable essential questions for integration of audio and video content to websites, etc.

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.



- 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.

- **3.1** 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.

- **4.1** 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).
 - identify areas you found challenging in your teaching for discussion during the next session.

PLC Session 16: Integration of Audio and Video Content to Websites

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?
 - 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 <u>have not</u> 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 integration of audio and video content to websites 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 integration of audio and video content to websites (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop 2 essential question for a lesson in Week 16 on integration of audio and video content to websites that will guide inquiry throughout 60 mins of study.

ii. Differentiation

There are 58 learners in my class with varying levels of experience in using ICT software. Provide two differentiated strategies that support learners to integrate audio and video content to websites accommodating diverse learning styles.

iii. Learning activities

Create 2 engaging 45-minute activities that address the concept, analysing and discussing website features and multimedia content for mixed-ability learners with no internet source. Consider cross cutting issues as well as national values.

iv. Assessment tasks

Create 3 formative assessment tasks to be administered towards the learning of the skill of integrating audio and video to websites in Week 16 for 60 minutes, 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.

Hint



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.

1.1 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

Examine the differentiation strategies included in the attached Week 16 learning plan on integration of audio and video contents to websites. recommend 2 appropriate differentiated strategies that can better cater fir the learning needs of the learners if the one in the plan is not appropriate, etc.

Hint



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

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



- 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.

- **3.1** 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.

- **4.1** 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:
 - 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 found challenging in your teaching for discussion during the next session.

PLC Session 17: Understanding Client/ Server vs. Peer-to-Peer Networks

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?
 - 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 <u>have not</u> 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 understanding client/server vs. peer-to-peer networks 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 understanding client/server vs. peer-to-peer networks (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Generate 4 essential questions aligned with Week 17 of the Teacher Manual with 1 tailored to the teacher and 1 suitable for learners.

ii. Differentiation

Assist me with a differentiated strategies that will be appropriate for teaching a 60-minute lesson based on the Week 17 focal area on understanding client/server vs. peer-to-peer networks. Consider GESI, SEL and SEN.

iii. Learning activities

Craft 60-minute step by step learning activities for the focal area of Week 17 in the Teacher Manual for a class of 51 learners in a school situated in an urban community with internet access at the lab. Taking into consideration cross cutting issues and national values.

iv. Assessment tasks

I need 4 exit ticket questions at DOK levels 1 and 2 for architecture and functionality of client/server networks that assess practical knowledge of the learners to be done during the lesson for 30 minutes, 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.

Hint



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

Examine my Week 17 learning plan assessment task to verify if the DoK levels are appropriately distributed and make recommendations for improvement, etc.

Hint



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

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



- 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.

- **3.1** 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.

- **4.1** 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).
 - identify areas you found 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
- prepare assessment tasks and rubrics for mid-semester examination

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

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

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

2.0 Reviewing the Learning Plan (20 minutes)

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

E.g.

Differentiation

I have uploaded my 60-minute learning plan for a 47-male dominated class, help me review the differentiated strategies to ensure they will be appropriate for teaching the lesson based on the Week 18 of the Teacher Manual. Consider Social and Emotion learners (SEL), Special Educational Needs (SEN), GESI, 21st century skills and national values, etc.

Hint



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

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

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.q.

In assessing my learners on Week 18 mid-semester examination of the Teacher Manual, I reviewed the structure and guidelines recommended as: 10 multiple choice question, 3 essay questions, 1hour: 30 mins, total score is 40 marks. Create assessment task distributed across DOK levels (1:30%, 2:40%, 3:30%) based on the structure, etc.



Note

In preparing for mid-semester or end of semester examination, one chat 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 and 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

With reference to the mid-semester examination assessment, check the balance of DOK levels across the assessment task types and ensure they are appropriately designed at DOK Levels (1:30%, 2:40%, 3:30%), etc.

ii. Mark scheme and score distribution

With reference to the mid-semester examination for Week 18 of the Teacher Manual, check the mark scheme and score distribution's alignment with the recommended DOK levels of each task, etc.

iii. Resources needed for assessment administration

In administering the mid-semester assessment task, check the recommended resources stated in the Teacher Manual to be sure if they are good in administering the assessment task. Recommend other appropriate resources that will cater for the learning styles of the learners, etc.

iv. How to provide feedback

Does the feedback address both correct and incorrect responses, offering clear explanations for why the answers are right or wrong?

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).
- b. read PLC Session 19, Teacher Manual and related Learner Material (NTS 3a).
- c. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- **d.** identify areas you found challenging in your planning and administering of the mid-semester assessment for discussion during the next session.

PLC Session 19: Common Network Communication Protocols and Standards

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?
 - 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 <u>have not</u> 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 common network communication protocols and standards 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 common network communication protocols and standards (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

Essential questions

Develop 3 essential questions for Week 19 of the Teacher Manual, that can guide learners apply the concept of the "basics of ethernet technology".

ii. Differentiation

Craft 2 differentiated strategies for a class of 62 learners for a 60-minute lesson. Take into consideration 21st century skills and cross cutting issues.

iii. Learning activities

Assist me to develop a step by step 60 minutes learning activities for Week 19 with the focal area 2 on TCP/IP protocol. The class size is 53 with limited resources and 3 kinaesthetic learners. Take into consideration national values.

iv. Assessment tasks

Develop 5 assessment tasks for Week 19's lesson on basics of ethernet technology, TCP/IP protocol and OSI model of the Teacher Manual. Ensure there is a fair distribution of the DoK levels to cater for the abilities of all learners, 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.

Hint



2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 minutes)

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

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

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

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

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

E.g.

Learning activities

Evaluate the learning activities in the attached learning plan for Week 19 and recommend appropriate alternative learning activities that will support all learners if the need be, etc.

Hint



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

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



- 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.

- **3.1** 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.

- **4.1** 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:
 - 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 found challenging in your teaching for discussion during the next session.

PLC Session 20: Common Network Communication Protocols and Standards

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?
 - 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 <u>have not</u> 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 common network communication protocols and standards 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 common network communication protocols and standards (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

Essential questions

Craft 4 essential questions to serve as a guide for both the teacher and the learner for 60 minutes for Week 20 of the Teacher Manual.

ii. Differentiation

Propose 4 differentiated strategies for a 60 minutes lesson for a class of 64 learners including visual, auditory, tactile learners. The lesson is on Week 20 with the focal area FTP overview.

iii. Learning activities

Craft engaging 60 minutes systematic activities that address wireless communication technologies and standards for diverse learners with no wireless communication devices available. The class size is 43 with 80% being female.

iv. Assessment tasks

Create 6 formative assessment tasks for Week 20 on SMTP overview, FTP overview, wireless communication technologies and standards that I can use during 60 minutes lesson. Ensure a strict enforcement of the DoK levels distribution, 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.

Hint



2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 Minutes)

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

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

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

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

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

E.g.

Essential questions

Analyse the essential questions of the attached Week 20 learning plan on common network communication protocols and standards. Propose alternative essential questions that will better cater for the attainment of LIs for the week lesson, etc.

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.



- 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.

- **3.1** 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.

- **4.1** 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 found challenging in your teaching for discussion during the next session.

PLC Session 21: Understanding and Evaluating ICT Risks and Security Threats

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?
 - 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 <u>have not</u> 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 understanding and evaluating ict risks and security threats 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 understanding and evaluating ICT risks and security threats (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest 2 essential questions for lesson on Week 21 of the Teacher Manual on cyberbullying taking into consideration the diverse learning abilities of the learners. Consider 21st century skills and cross cutting issues.

ii. Differentiation

Give me 2 differentiated strategies for my Week 21 lesson on effects of cyberbullying. I have a class of 29 all-female learners including 1 with mobility challenge. Consider SEL and SEN.

iii. Learning activities

Design a 45-minute group activity sequenced for effective learning of malware and its types that builds from basic to complex understanding of the learners. Suggest appropriate resource for the lesson.

iv. Assessment tasks

Design 2 assessment tasks will take 20 minutes for supporting learners' comprehension of how malware spread in Week 21, 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.

Hint



2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 minutes)

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

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

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

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

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

E.g.

Differentiation

Examine if the differentiated strategies stated in the uploaded learning plan for Week 21 caters for all learners according to their learning abilities and needs. Recommend an appropriate strategy where necessary to cater for all learners if the reviewed work does not do that, etc.

Hint



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

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



- 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.

- **3.1** 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.

- **4.1** 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:
 - 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 found challenging in your teaching for discussion during the next session.

PLC Session 22: Evaluating Risks and Security Threats in ICT

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?
 - 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 <u>have not</u> 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 evaluating risks and security threats in ICT 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 evaluating risks and security threats in ICT (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest three essential questions in a 60 minutes lesson for Week 22 lesson on evaluating risks and security threats in ICT.

ii. Differentiation

Provide 2 differentiation strategies for teaching botnet and denial of service attack for Week 22 to a class of 46 with 30 average learners, 10 slow learners and 6 advanced learners, taking into consideration SEL and SEN learners.

iii. Learning activities

Design 60-minute learning activities for Week 22 on types of spoofing. There are 2 tactile learners out of 37 learners. Suggest local low-cost resources for the lesson. Consider 21st century skills and national values.

iv. Assessment tasks

Formulate 6 formative assessment task for Week 22 on DOS attack and types of DOS attack that can be used to assess learners' knowledge and skill acquired by learners. Suggest an appropriate mark scheme/rubric on how to administer and give feedback to the assessment, 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.

Hint



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

Verify the attached Week 22 learning plan to see if the assessment task and its mark scheme/rubrics has fair distribution of marks and if they need improvement to conform to the DoK levels, etc.

Hint



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

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



- 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.

- **3.1** 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.

- **4.1** 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:
 - 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 found challenging in your teaching for discussion during the next session.

PLC Session 23: Preventive Mechanisms for Mitigating Computer Network Attacks

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?
 - 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 <u>have not</u> 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 preventive mechanisms for mitigating computer network attacks 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 preventive mechanisms for mitigating computer network attacks (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest learning plan with 2 essential questions for Week 23 focal areas 1 and 2 of the Teacher Manual which is on Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS) and Network Access Control

ii. Differentiation

I have 10 advanced learners and 15 struggling learners. How can I differentiate the 60 minutes lesson on security patch management to challenge and support all?

iii. Learning activities

Recommend 4 learning activities for teaching focal areas 1 and 2 of the Week 23 on Intrusion Detection Systems (IDS) and Intrusion Prevention Systems (IPS) and Network Access Control for 60 minutes. The class size is 45 with 40% of learners being advanced learners and the rest average. Include Collaborative strategies.

iv. Assessment tasks

Generate 4 formative assessment tasks for 39 learners at DOK levels 2 and 3 on network access card. The focus should be on assessing practical skill of the learners., 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.

Hint



2.0B Reviewing the Learning Plan and Addressing Challenges in Planning, Delivering and Assessing Lessons (50 minutes)

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

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

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

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

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

E.g.

Learning activities

Examine the learning activities for Week 23 of the uploaded learning plan and suggest areas of the activities which needs to be improved, etc.

Hint



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

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



- 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.

- **3.1** 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.

- **4.1** 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 found 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
- prepare assessment tasks and rubrics for end of semester examination

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

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

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

2.0 Reviewing the Learning Plan (20 minutes)

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

E.g.

Assessment task

I have attached my learning plan. Does the assessment task effectively cover a range of learner abilities, from basic knowledge to higher-order thinking?

Provide remediation to make the tasks effective for capturing diverse learning needs and abilities, etc.

Hint



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

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

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.

With reference to Week 24 of the Teacher Manual, the structure and guidelines of the end of semester examination is: 40 Multiple Choice, 5 Essay questions, 2 practical questions for 3 hours 30 minutes with total score of 100 marks. Design a comprehensive end of semester examination assessment tasks with the recommended structure considering extended time available for learners with special educational needs, limited resources, learners' abilities and learning styles.



Note

In preparing for mid-semester or end of semester examination, one chat 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 and 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

Check the distribution of DOK levels across the assessment tasks. Are the tasks appropriately aligned with the DOK levels of 1 (30%), 2 (40%) and 3 (30%)?

ii. Mark scheme and score distribution

Recommend adjustments to the mark scheme and score distribution for the End of semester assessment, ensuring that it properly reflects the DOK levels (1:30%, 2:40%, 3:30%), etc.

iii. Resources needed for assessment administration

Recommend appropriate material resources that cater for the diverse needs of learners, ensuring an equitable and smooth administration of the examination, etc.

iv. How to provide feedback

Suggest a structure for providing feedback to support remediation and commendation, etc.

4.0 Reflection (10 minutes)

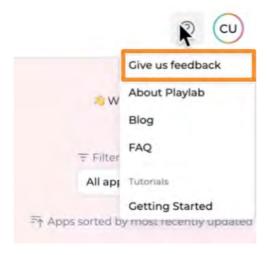
- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 24 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to mark, record and upload your learners' assessment scores in the Student Transcript Portal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

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

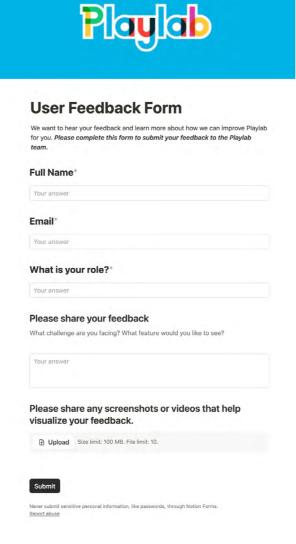
How to Report Issues or Get Support

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

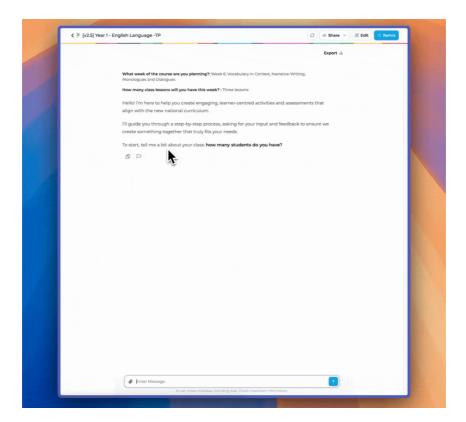
- 1. Email Support
 - For general issues: Send email to: support@playlab.ai
 - Include:
 - Your school name and region
 - Subject app you're using
 - Description of the issue
 - Screenshots or screen recordings (if possible)
 - Best for: School administrators reporting multiple app issues
 - Response 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)



- 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



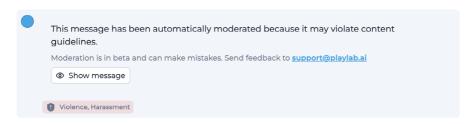
- Click to report biased, inaccurate, or inappropriate messages.
- Best for: Immediate issues with app responses
- There is also in app moderation for both user messages and AI generated responses. You can read more about it here.

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.



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:

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
 - O 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 Templete

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 les	sons for	the week	()			
Refer to the Teacher Manual and Learner Material to complete this section						
Introduction						
Main Lesson						
Closure						

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

Appendix 3: Teacher Lesson Observation Form

Teacher Lesson Observation Form

Nam	e of School				
Subj	ect being observed				
Class	S				
	Yea	r1	Year 2	Year 3	
Sex	of the teacher		Male	Female	
1.	Is the purpose of th learners achieving	e lesson clearly s the lesson learni	stated in the lesson pl ng outcomes?	an and focused on	
	Yes	In Part	No	NA	
b1.	Please provide an e	xplanation to yo	ur 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 cho	ice of teaching m	ethods, and learning a	ctivities.	
	Yes	In Part	No	NA	

2b.	Please provide an ex	xplanation to your ansv	ver in Q2 above	
3.	Does the teacher mathreatening learnin	anage behavior well, m g environment througl	aintaining a positive a hout the lesson?	and non-
	Yes	In Part	No	NA
3b.	Please provide an ex	kplanation to your ansv	ver in Q3 above	
4.	(including ICT, book	ching and learning mat ss, desks) available, acc les, males and learners	essible and being use	d to support
	Yes	In Part	No	NA
4b.	Please provide an ex	kplanation to your ansv	ver in Q4 above	
5.	Are leaners engaged standards?	d on tasks that challeng	ge them in line with th	e content
	Does the teacher take	e into consideration the	uniqueness of learners	?
	Yes	In Part	No	NA
5b.	Please provide an ex	kplanation to your answ	ver in Q5 above	
6.	Is there evidence th	at students are learnin	g?	
	Yes	In Part	No	NA

6b.	Please provide an e	explanation to your ans	swer in Q6 above	
7.	learners, female le	tiated to cater for the v arners, learners with s and/ or numeracy prof	pecial education need	ners (i.e., male s) and those
	Yes	In Part	No	NA
7b.	Please provide an e	explanation to your ans	swer in Q7 above	
8.	Does the teacher u concepts?	se real life examples w	hich are familiar to lea	ırners to explair
	Yes	In Part	No	NA
8b	Please provide an	explanation to your an	swer in Q8 above	
9.		oint out or question tra e lessons as appropriat		when they
	Yes	In Part	No	NA
9b.	Please provide an	explanation to your an	swer in Q9 above	
10.		clude appropriate inter lay, storytelling to supp		
	If yes, give example	s of the issues and skills	that have been so integ	rated.
	Yes	In Part	No	NA

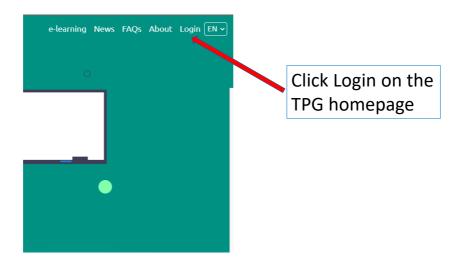
10b.	Please provide an explanation to your answer in Q10 above				
11.	lesson to support le	issues and /or 21st cent arners in achieving the king, communication? been so integrated.	learning outcomes e	.g., problem-	
	Yes	In Part	No	NA	
11b.	If yes, give example	s of the issues and skill	s that have been so in	tegrated.	
12.	Does the teacher in	corporate ICT into thei	r practice to support l	earning?	
		•		J	
12h	Yes	In Part	No	NA	
120.	Please provide an ex	kplanation to your ansv	ver in Q12 above		
13.	who may be shy or a	courage all female mal fraid to speak) to ask q work, etc. during the l	uestions, answer que		
	Yes	In Part	No	NA	
13b.	Please provide an ex	kplanation to your answ	ver in Q13 above		
14.	Is assessment evide of learning and go b	ent in the lesson? If yes, eyond recall?	does it include asses	sment as, for or	
	8 8	ssessment of, for or as le	arning and go beyond	recall?	
	Yes	In Part	No	NA	

14b.	Please provide an explanation to your answer in Q14 above				
15.	Do learners make us	se of feedback from tea	ncher and peers?		
	Yes	In Part	No	NA	
15b.	Please provide an ex	xplanation to your ansv	ver in Q15 above		
16.	Does the teacher su learning outcomes v	m up the lesson and ev with the learners?	aluate the lesson aga	inst the	
	Yes	In Part	No	NA	
16b.	Please provide an ex	xplanation to your ansv	ver in Q16 above		
17.		olanning of lessons tau arning over time, cons			
	Yes	In Part	No	NA	
17b.	Please provide an ex	xplanation to your answ	ver in Q17 above		
18.	Does the teacher pa during group work a	y attention to the com and assigns females lea	position of females andership roles.	nd males	
	Yes	In Part	No	NA	
18b.	Please provide an explanation to your answer in Q18 above				

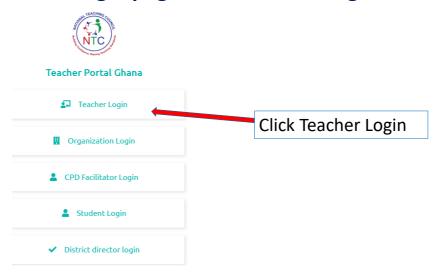
19.	Does the teacher provide constructive verbal feedback to both females and males and learners with special education needs?			
	Yes	In Part	No	NA
19b.	Please provide an ex	xplanation to your ansv	wer in Q19 above	
20.		ovide constructive wri with special education		
	Yes	In Part	No	NA
20b.	Please provide an ex	xplanation to your ansv	wer in Q20 above	
21.	Key strengths in the lesson			
22.	Areas for development			
23.	Next steps for teacher			
Addi	tional Notes (on tead	ther's actions, the flow	of activities, etc.)	

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

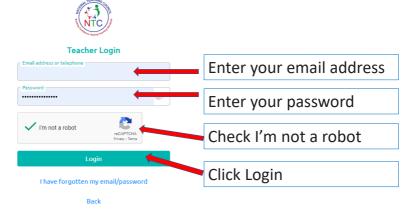
1. Visit tpg.ntc.gov.gh and click Login



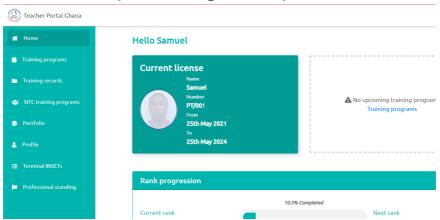
2. On the Login page, click Teacher Login



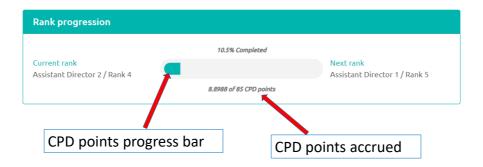
3. On the Teacher Login page enter your email address and password and then click Login



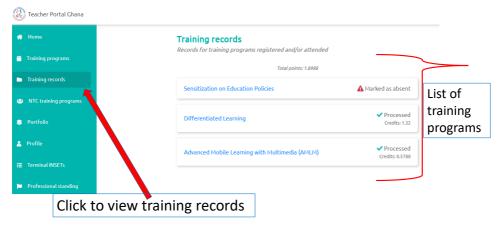
4. After a successful login you will get access to your TPG account (Check image below)



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)



THANK YOU