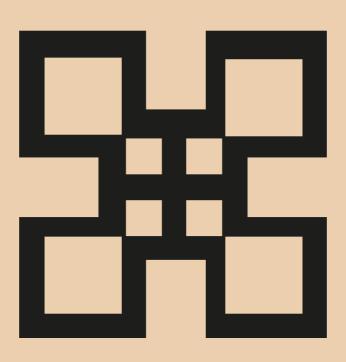
Professional Learning Community Handbook

Biomedical Science

Year Two









Professional Learning Community Handbook

Biomedical Science

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/ cmd93x7ru054oju0uilff0262

Year Two App



https://www.playlab.ai/project/cme6g4b0009l0no0ukyjuka73

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 Scheme of Assessment and Detailed Syllabus
- 8. Learning Planning Template
- 9. Teacher Assessment Manual and Toolkit
- 10. Socio Emotional Learning
- 11. National Values
- 12. Gender Equality and Social Inclusion (GESI), etc.

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

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

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

2.0 Exploring the Subject Specific App (65 minutes)

2.1 Scan the QR Code or use the link to access your Subject Specific App https://www.playlab.ai/project/cme6g4b0o09l0no0ukyjuka73



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

- 2.4 Share your experience with the larger group (NTS 3j).
 - a. two things you learnt using the App and how you plan to apply them.
 - b. two advantages of using the App
 - c. two disadvantages of using the App without the appropriate curriculum materials (e.g. Teacher Manual, etc.)

3.0 Reflection

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

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

1.0 Introduction (10 minutes)

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

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

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

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

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

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

2.1 Open your App and have a chat with it.

E.g.

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

- c. Select a week you are interested in and continue chatting with your App
- d. Refer to your Teacher Manual and confirm the information provided by the App or otherwise.
- **2.2** Explore assessment using the App (NTS 3h, 3j and 3o-3q)

Select Assessment

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



Note

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

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



Note

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

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

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



Note

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

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

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



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks.
- ii. Remember to ask your App to help you add 21st Century Skills, National Values, GESI and SEL to your learning activities, assessment, etc., where applicable.
- **3.2** Share your experience with the larger group (NTS 3j).
 - a. two things you learnt using the App in developing assessments
 - b. how you plan to apply the experiences
 - c. any challenges you faced in using the App to develop assessments and how you addressed them

4.0 Reflection (15 minutes)

- **4.1** Reflect and share your views on the session (NTS 1a, 1b)
- 4.2 Remember to
 - a. read PLC Session 1, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook on Week 1 in preparation for the next session (NTS 3a).

PLC Session 1: Investigate and Discuss a Variety of Biomedical Science Careers that Relate to the Prevention, Diagnosis, and Treatment of Diseases

1.0 Introduction (10 minutes)

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

Purpose: The purpose of this session is to populate a learning planner for Week 1 on a variety of biomedical science careers that relate to the prevention, diagnosis, and treatment of diseases 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 biomedical science careers that relate to the prevention, diagnosis, and treatment of diseases 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 biomedical science careers that relate to the prevention, diagnosis, and treatment of diseases (NTS 3a-3q).

E.q.

i. Learning activities

Create engaging activities that address the indicator for Week 2 lesson for 40 mixed-ability learners with limited resources. Put them into introduction, main lesson and closure for 90 minutes with integration of GESI and national values, etc.

ii. Assessment tasks

Refer to the Teacher Manual for the required DoK level and assessment mode for week 21. Create one key assessment task for both formative and summative assessments, lasting 30 minutes. Include the task description and rubrics, etc.

iii. Differentiation

I have 25 proficient learners and 15 struggling learners. Suggest how I can include all learners in lesson on biomedical science careers to challenge and support everyone while ensuring inclusivity, GESI, etc.

iv. Essential questions

Generate 4 essential questions for quiding both teacher and learners that correspond with the learning indicator, promote critical thinking about biomedical science careers, incorporate GESI principles, and quide learners to make connections between careers and their impact on community health, etc.



Note

- Chatting once may not be enough for the App to provide all that you may need for the tasks.
- Transfer the information from your SS App into your learning planner template to complete your plans. Click the link or Scan the OR code to download the template. https://curriculumresources.edu.gh/wpcontent/uploads/2025/09/Year-Two-Lesson-Planner-Template-20.docx
- iii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.



3.0 Enactment of an Activity (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:
 - read PLC Session 2, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 2: Preparing for Student Transcript Portal Assessment – 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 individual portfolio

Learning Outcome (LO): To review the learning plan for Week 2 and address any challenges in planning and developing assessment tasks for the individual 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 individual portfolio.

2.0 Reviewing the Learning Plan (20 minutes)

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

Learning activities

Review the learning activities in the attached learning plan for Week 2 meant for 40 learners with diverse learning abilities and suggest improvements to better integrate cross-cutting issues, 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.q.

Individual Portfolio

The key assessment to be assigned in Week 2 is an individual portfolio. Review the sample in the Teacher Manual, Section 1, Appendix A, with rubric for 40 learners with limited resources. Include guidance on how to assess the integration of critical thinking, etc.



Note

- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.
- 3.2 Have a chat with your App to verify the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the suggestions to refine the assessment tasks (NTS 1a, 2b, 2c and 3e-3q). In doing this activity, consider:

i. Task

Suggest ways to improve the portfolio task instructions to make them clearer and more engaging for learners, etc.

ii. Mark scheme and score distribution

Create a detailed marking guide that shows exactly how to award the 20 marks for the portfolio, etc.

iii. Resources needed for assessment administration

Propose the materials and resources needed to run this portfolio assessment in the classroom of 40 learners, etc.

iv. How to provide feedback

Recommend how to give helpful feedback to students on their portfolios throughout the period they are to work, 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: Preparing for Student Transcript Portal Assessment – Group Project

1.0 Introduction (10 minutes)

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

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

- 1. review the completed learning plan for Week 3
- 2. prepare assessment tasks and rubrics for group project

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

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

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

Assessment task

Check the assessment tasks in the attached Week 3 learning plan for 40 learners, including 2 visually impaired learners and suggest any ideas for improvements, 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 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 and adapt the specific group project task detailed in Appendix B of Section 1 of the Teacher Manual on Careers in Biomedical Science to suit 40 learners. Include integrating national values. Add a 20-mark rubric, etc.



Note

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

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

i. Task

Provide ideas to enhance the assessment task and how to assign the core research areas to the groups, etc.

ii. Mark scheme and score distribution

Check if the 20-mark rubric is appropriate enough to motivate learners while accurately assessing their performance, etc.

iii. Resources needed for assessment administration

List some key resources needed to successfully administer the group project, etc.

iv. How to provide feedback

Suggest some effective strategies for delivering feedback that inspires my learners to improve, 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 3 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
 - b. read PLC Session 4, Teacher Manual and related Learner Material (NTS 3a).
 - c. bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - d. identify areas you found challenging in your teaching and administration of the group project assessment for discussion during the next session.

PLC Session 4: Describe Features of the Biosafety Levels and Proper Practice

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?
 - If you answered yes, conduct your PLC Session from Activity 2.0
 - 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 describing features of the biosafety levels and proper practice 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 describing

features of the biosafety levels and proper practice (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest 3 essential questions on the biosafety levels in the laboratory, one to guide the teacher and two directed towards the learners promoting critical thinking skills and national values, etc.

ii. Differentiation

With 25 proficiency learners and 15 struggling learners, suggest how I can vary the lesson to challenge and support all of them, etc.

iii. Learning activities

Design 90-minute interactive instructional activities for teaching the importance of biosafety levels in the lab, progressing from basic to complex concepts for 40 learners, while integrating SEL and national values. Put it into introduction, main lesson and closure, etc.

iv. Assessment tasks

Provide 2 exit ticket questions at DoK 1 and 2 for the features of biosafety levels in the lab that assess understanding and critical thinking, put into assessment mode with tasks 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

Review the 90-minutes interactive instructional activities for teaching the importance of biosafety levels in the lab with the Teacher Manual and make modifications to integrate SEL 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.



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:
 - read PLC Session 5, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 5: Proper Setup of the Biosafety Cabinet and Proper Donning and Removing of Personal Protective Equipment (PPE)

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 4
 - a. the challenges you faced
 - b. how you addressed them
- **1.2** Have you developed your learning plan for Week 5?
 - 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 5 on proper setup of the biosafety cabinet and proper donning and removing of PPE using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 5 on proper setup of the biosafety cabinet and proper donning and removing of PPE (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Provide three essential questions: one directed at the teacher instructions and two at the learners' conceptualisation about proper donning of PPE, connecting to real-world applications and promoting GESI and national values, etc.

ii. Differentiation

Suggest two ways to adapt the proper setup of BSC and proper PPE donning for learners with diverse backgrounds, while integrating 21st-century skills and social-emotional learning, etc.

iii. Learning activities

Recommend three hands-on activities for proper donning and removing PPE, suitable for 40 learners in a 90-minute lesson that promote inclusivity and national values. Use an introduction, main lesson, and closure format, etc.

iv. Assessment tasks

Refer to the Teacher Manual for the recommended assessment mode and DoK levels for Week 5 to generate two formative and summative questions, including rubric or mark scheme for the proper setup of the BSC and proper donning of PPE that involve national values, 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

Refer to the Teacher Manual for the recommended assessment mode and DoK for Week 5 and review the formative questions on the proper setup of the BSC and proper donning of PPE that resonate critical thinking. Suggest areas that suit 40 learners, etc.

Hint



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

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



Note

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

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

3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

4.0 Reflection (10 minutes)

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 5 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. read PLC Session 6, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 6: Preparing for Mid-Semester Examination

1.0 Introduction (10 minutes)

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

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

- 1. review the completed learning plan for Week 6
- 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.

Differentiation strategies

Attached is the learning plan for Week 6. Check if the differentiation strategies are convenient for 40 learners with 5 average and 2 below average performance at Bosomtwe Girls STEM High in Deduako and provide feedback and suggestions for improvement.

Hint



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

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

3.0 Prepare for Mid-Semester Examination (50 minutes)

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

E.g.

The mid-semester examination structure requires 20 multiple-choice questions: 30% at DOK level 1, 40% at DOK level 2, and 30% at DOK level 3 for focal areas covered from Weeks 1 to 5 in the Teacher Manual. Prepare the 30 minutes questions according to WAEC Ghana standards, following the DOK level distribution. Add mark scheme for scoring.



Note

In preparing for the mid-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

Revise the assessment task to follow the DOK distribution of 30%, 40%, 30%, etc.

ii. Mark scheme and score distribution

Check if my marking scheme is clear and fair. Fix any confusing parts to make scoring easier and reliable, etc.

iii. Resources needed for assessment administration

Suggest resources needed for the assessment administration without internet, etc.

iv. How to provide feedback

Recommend effective feedback to be given after the mid-semester examination to improve learning, 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.
 - 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 administration of the mid-semester assessment for discussion during the next session.

PLC Session 7: The Concept of Brain Mapping and its Role in Understanding Communication Pathways

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 the concept of brain mapping and its role in understanding communication pathways 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 the concept of brain mapping and its role in understanding communication pathways (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest three essential questions regarding brain mapping and communication pathways that promote critical thinking skills and social equity: one for the teacher and two for learners, etc.

ii. Differentiation

Provide all-inclusive strategies for teaching the concept of brain mapping and its role in understanding communication pathways to a class with 25 high-proficient and 15 struggling learners, etc.

iii. Learning activities

Create five activities for 90 minutes on brain mapping and communication pathways for 40 learners in a resource-limited school. Include an introduction, main lesson, and closure, while promoting SEL and national values, etc.

iv. Assessment tasks

Create two formative assessments on the concept of brain mapping and its role in understanding communication pathways to guide understanding, and one summative assessment for the week, including a rubric, 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 essential questions in the attached learning plan regarding brain mapping and communication pathways that promote critical thinking skills and GESI, 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.

3.0 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 find challenging in your teaching for discussion during the next session.

PLC Session 8: Determine How Communication Works in the Body and its Effects

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 how communication works in the body and its effects 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 how communication works in the body and its effects (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Provide 3 essential questions about communication in the body and its effects on health: one focused on the teacher and two on learners etc

ii. Differentiation

Generate one inclusive strategy for teaching 40 learners with varied learning styles, including 5 struggling learners on communication in the body, ensuring inclusivity only, etc.

iii. Learning activities

Create two collaborative activities for 40 learners in 90 minutes lesson that explore communication in the body, focusing on GESI and SEL with introduction, main lesson, and closure, etc.

iv. Assessment tasks

Develop two formative assessment tasks with rubrics on how communication works in the body and its effects, covering DoK levels 1 and 2, 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

Verify from the attached learning plan, the suitability of the recommended differentiation strategy for teaching 40 learners with 5 struggling learners on communication in the body, ensuring inclusivity. 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. 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.

3.0 Enactment (25 minutes)

- **3.1** Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c-3i).
- 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 find challenging in your teaching for discussion during the next session.

PLC Session 9: Technological tools used in Biomedical Sciences to assess communication within the human body

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 technological tools used in Biomedical Sciences to assess communication within the human body 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 technological tools used in biomedical sciences to assess communication within the human body (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop two essential questions regarding technological tools for assessing communication within the body that will guide inquiry throughout a 90-minute lesson, etc.

ii. Differentiation

Provide strategies for incorporating all learners in learning technological tools for assessing communication within the body to a class that includes 5 struggling and 7 highly proficient learners, etc.

iii. Learning activities

Provide two activities for 40 learners in a lesson of 90 minutes on technological tools for assessing communication within the human body incorporating national values. Include an introduction, main lesson, and closure, etc.

iv. Assessment tasks

Create one formative assessment task for each DOK level recommended by the Teacher Manual on technological tools for assessing communication within the body. Include a rubric, 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

From the attached learning plan, evaluate the potential for the activities to cover all 25 proficient, 10 highly proficient and 5 struggling learners on using technological tools to assess communication within the human body. Ensure the activities align with the Teacher Manual and incorporate national values and critical thinking, 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.

3.0 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:
 - read PLC Session 10, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 10: Explore how various nervous system disorders can impact a person's quality of life

1.0 Introduction (5 minutes)

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

Hint



You cannot conduct PLC on Activity 2.0B if you <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 how various nervous system disorders can impact a person's quality of life 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 how various nervous system disorders can impact a person's quality of life (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop two essential questions for targeting learners' application of concepts and one for the teacher's presentation of the lesson on how various nervous system disorders can impact a person's quality of life, etc.

ii. Differentiation

Provide a strategy to adapt the teaching of how nervous system disorders impact quality of life to a class of 25 proficient learners, including 5 students who need improvement in language proficiency, etc.

iii. Learning activities

Design a 90-minute inclusive group activity for 40 learners, covering an introduction, main lesson, and closure on how nervous system disorders impact quality of life, from basic to complex understanding, etc.

iv. Assessment tasks

Based on the recommended mode of assessment for Week 10, create two formative assessment tasks with rubrics on how nervous system disorders impact quality of life, 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

Review the assessment tasks in the attached learning plan on how nervous system disorders impact quality of life in alignment with the recommended assessment mode in 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. 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.

3.0 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 find challenging in your teaching for discussion during the next session.

PLC Session 11: Interpret the symptoms and physical characteristics of a given patient to determine an endocrine system malfunction

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 interpreting the symptoms and physical characteristics of a given patient to determine an endocrine system malfunction (example, Hyperthyroidism) 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 interpreting the symptoms and physical characteristics of a given patient to determine an endocrine system malfunction (example, Hyperthyroidism) (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Provide 2 essential question targeting learners and the teacher on the role of the endocrine system in regulating various bodily functions, connecting to real-world applications, etc.

ii. Differentiation

Suggest one way to adapt lessons on the role of the endocrine system in regulating various bodily functions, ensuring meaningful engagement for all 25 proficient learners and 10 struggling learners, etc.

iii. Learning activities

Design 60-minute activities for 40 learners exploring the endocrine system's role in regulating bodily functions through digital learning, promoting 21st-century skills and national values, etc.

iv. Assessment tasks

Suggest two formative assessment tasks with rubrics based on the DoK levels and assessment modes recommended in the Teacher Manual to assess critical thinking on the endocrine system's role in regulating bodily functions, 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.



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

Attached is a learning plan for Week 11. Review the learning activities and suggest improvements only where necessary to ensure alignment with the curriculum, integration of GESI, reflection of national values, and enhancement of learner curiosity, 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 11 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. read PLC Session 12, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 12: Preparing for End of Semester Examination

1.0 Introduction (10 minutes)

- **1.1** Share one thing on assessment in PLC Session **11** that you
 - 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

Find attached learning plan for Week 12. Review how well the activities inculcate national values and century skills into my 40 learners and suggest innovative ways for the activities to suit the learners, 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.q.

Create end of first semester examination tasks for Biomedical Science Year 2, covering content from weeks 1 to 12 only. Ensure the exam follow this structure:

- 1. Paper 1: 50 multiple choice questions (MCQs) 50 marks
- **2.** Paper 2:

Part A: 1 compulsory question — 20 marks

Part B: 3 questions (learners answer any 2) - 15 marks each

Duration: 2 hours for both papers

Strictly follow the 30% DOK 1, 40% DOK 2 and 30% DOK 3 Distribution for each paper.



Note

In preparing for 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.

 Whether the assessment tasks generated follow 30%, 40%, 30% DoK Distribution

Check if the assessment tasks follow the 30% DOK 1, 40% DOK 2, 30% DOK 3 distribution. Show the breakdown.

ii. Mark scheme and score distribution

Propose a more flexible marking scheme that accounts for different student performance levels while maintaining academic standards?

iii. Resources needed for assessment administration

What materials is needed to administer the exam for 40 learners? Suggest backup resources that should be prepared for exam day.

iv. How to provide feedback

What's the best way to provide feedback on poor performance with learners considering SEN and yet ensuring commitment to improvement?

- **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.
 - read PLC Session 13, 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 administration of the end of semester assessment for discussion during the next session.

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

1.0 Introduction (10 minutes)

- **1.1** Share one thing on assessment in PLC Session 12 that you
 - a. applied in your lesson delivery
 - b. found challenging and how you addressed it.
- 1.2 Share one challenge you encountered while populating your learning plan for week 13 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

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

- 1. review the completed learning plan for week 13
- 2. prepare assessment tasks and rubrics for individual project

Learning Outcome (LO): To review the learning plan for week 13 and address any challenges in planning and developing assessment tasks for the individual project (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

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

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

2.0 Reviewing the Learning Plan (20 minutes)

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

E.g.

Differentiation

Check the differentiation in my learning plan for week 13 on structural differences between bacteria and viruses, in alignment with the curriculum. Suggest areas for improvement, inclusivity and national values to suit my 10 AP, 20 P and 10 HP learners, 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
- 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

Review the individual project in Appendix E of Section 4: Diseases and Disorders from the Teacher manual. Adjust it for the diverse needs of 40 individual learners, incorporating Ghanaian cultural values. Create a 20-mark rubric, etc.



- i. Chatting once may not be enough for the App to provide all that you may need for the tasks
- ii. Chat with your App to learn how to integrate National Values, GESI, SEL and 21st century skills in your learning activities, assessment tasks and rubrics/mark scheme.
- 3.2 Have a chat with your App to verify the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the suggestions to refine the assessment tasks (NTS 1a, 2b, 2c and 3e-3q). In doing this activity, consider:

E.g.

i. Task

What specific adjustments would you suggest for making the differentiation more effective for my learners? Etc.

ii. Mark scheme and score distribution

Does the score distribution meet individual needs while maintaining assessment integrity? Etc.

iii. Resources needed for assessment administration

Can this project be done with limited resources? Suggest other means to achieve this with no cost if necessary? Etc.

iv. How to provide feedback

How can I use peer check-in circles and exit ticket progress check to achieve positive feedback in this project? 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 13 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 14, Teacher Manual and related Learner Material (NTS 3a).
 - c. bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - d. identify areas you found challenging in your teaching and administration of the individual project assessment for discussion during the next session.

PLC Session 14: Explore the symptoms, prevalence, and treatment of bacterial and viral infections considering infections of the reproductive system

1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 13
 - a. the challenges you faced
 - b. how you addressed them
- **1.2** Have you developed your learning plan for Week 14?
 - 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 14 on the symptoms, prevalence, and treatment of bacterial and viral infections considering infections of the reproductive system using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 14 on the symptoms, prevalence, and treatment of bacterial and viral infections considering infections of the reproductive system (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Create three questions on bacterial and viral infections in the reproductive system with one targeting teacher effectiveness and two targeting students' proficiency in concept application, etc.

ii. Differentiation

Suggest one inclusive strategy to teach 40 students, including 5 who need extra help in learning lessons in biomedicals. Ensure everyone is given attention in line with SEN and GESI, etc.

iii. Learning activities

Plan collaborative activities for 40 students in 90 minutes that explore bacterial and viral infections in the reproductive system, focusing on GESI and SEL, and structured as introduction, main lesson, and wrap-up

iv. Assessment tasks

Develop two assessment tasks with rubrics to check understanding on bacterial and viral infections in the reproductive system using DoK levels 1 and 2.



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

Confirm the appropriateness of the differentiation strategy for teaching 40 learners, including 5 who need extra support about bacterial and viral infections in the reproductive system, while ensuring inclusivity, 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.

3.0 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 14 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - read PLC Session 15, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 15: Explore the Immune Response in Relation to the Introduction of Antigens

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 the immune response in relation to the introduction of antigens 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 the immune response in relation to the introduction of antigens using (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Formulate two key questions about the immune response and how it reacts to the introduction of antigens. One of the questions should focus on the teacher and one on the learner's conceptualisation. Consider how these questions promote critical thinking and inclusivity, etc.

ii. Differentiation

Give one strategy for a teacher to adapt instruction to 40 learners with 5 struggling on the immune response to antigens. Ensure these strategies incorporate GESI principles, enhance SEL, and foster collaboration, etc.

iii. Learning activities

Create three activities that engage 40 learners over 90 minutes to explore the immune response to antigens. Integrate national values and GESI considerations, and structure them to promote SEL through teamwork, etc.

iv. Assessment tasks

Design one formative assessment task with rubric for each DoK level. Focus on the immune response to the introduction of antigens, 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

Refer to the Teacher Manual and revise the planned activities in the learning plan for 40 learners over 90 minutes regarding the immune response to antigens, ensuring the activities incorporate national values, promote GESI, and foster critical thinking and SEL skills to suit the learners, 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 15 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - read PLC Session 16, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 16: Analyse how Antibiotics are Used to Treat Infections and Explain How Effectiveness Depends on the Causative Bacteria

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 analyse how antibiotics are used to treat infections and explain how effectiveness depends on the causative bacteria 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 analyse how antibiotics are used to treat infections and explain how effectiveness depends on the causative bacteria (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Create two essential questions to guide learners and one to guide the teacher on how antibiotics are used to treat infections and how their effectiveness varies based on the type of bacteria, etc.

ii. Differentiation

Suggest a strategy for adapting the lesson on antibiotic use and effectiveness for a class of 25 proficient learners, including 5 students who require language support, etc.

iii. Learning activities

Propose 90-minute inclusive activities for 40 learners that includes an introduction, main lesson, and closure on the use of antibiotics for treating infections ensuring the content is appropriate for limited resources, etc.

iv. Assessment tasks

Develop two assessment tasks with rubrics, using recommended DoK levels and modes from the Teacher Manual, for assessing understanding of how antibiotics treat infections, 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

From the attached learning plan, analyse the proposed assessment tasks regarding the use and effectiveness of antibiotic based on information in the Teacher Manual, and make recommendations to better to improve learning, 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.

- **3.1** 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:
 - a. read PLC Session 17, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 17: Discuss the Global and Social Impact of Infectious Diseases Caused by Bacteria and Viruses

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
 - a. 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 the global and social impact of infectious diseases caused by bacteria and viruses 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 the global and social impact of infectious diseases caused by bacteria and viruses (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop one essential question for guiding learners and one for the teacher on the global and social consequences of infectious diseases caused by bacteria and viruses, linking it to real-life contexts, etc.

ii. Differentiation

Create a strategy to adapt the lesson on the global and social impact of infectious diseases to suit all learners 25 proficient learners and 5 struggling ones, making room for unanticipated challenges during the lesson, etc.

iii. Learning activities

Design 60-minute activities for 40 learners that examine the effects of infectious diseases on global health using digital learning, while enhancing 21st-century skills and national values, etc.

iv. Assessment tasks

Prepare two formative assessment tasks with rubrics based on the recommended DoK levels and assessment mode from the Teacher Manual to evaluate critical thinking in relation to the impact of infectious diseases caused by bacteria and viruses, 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.

Essential questions

Check the essential questions in the attached learning plan for alignment with the vision of the curriculum and suggest modifications where necessary. Ensure they can guide effective teacher instruction and stimulate learner curiosity, 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.

- **3.1** Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3c-3j).
- 2.2 Reflect on the activity enacted to improve lesson delivery (NTS 1a).
- 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).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 18: Preparing for Mid-Semester Examination

1.0 Introduction (10 minutes)

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

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

- 1. review the completed learning plan for Week 18
- support teachers to address challenges they may have during the preparation and delivery of lessons.
- 3. 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.

Learning activities

Review the attached learning plan for Week 18 with reference to the Teacher Manual and analyse how well the essential questions integrate and bring out: 21st Century Skills and Competencies, Inclusivity, Social Emotional Learning, National Values to my 40 learners from diverse background.

Hint



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

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

3.0 Prepare for Mid-Semester Examination (50 minutes)

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

E.q.

Using the Teacher Manual Appendix F's table of specifications, create a complete 20-item MCQ for 25-minute mid-semester examination in Week 18 covering focal areas 13-17 with 30% DoK 1, 40 DoK 2 and 30% DoK 3 distribution. Provide the required mark scheme.



Note

In preparing for mid-semester examination, one prompt may not be enough for the App to provide all you need (DoK levels, structure, distribution across DoK levels, etc.) 3.2 Have a chat with your App to review the suggested assessment tasks and discuss the suitability of the responses from activity 3.1. Use the review to refine the responses and complete the set questions (NTS 1a, 2b, 2c and 3e-3q). In doing this activity, consider:

E.g.

 Whether the assessment tasks generated follow 30%, 40%, 30% DoK Distribution

Does my assessment follow exactly the 30% DoK 1, 40% DoK 2, 30% DoK 3 distribution? If not, what specific changes should be made?

ii. Mark scheme and score distribution

Is the mark scheme clear, fair, and appropriately weighted? What specific improvements do you suggest?

iii. Resources needed for assessment administration

What materials and other resources are needed for 40 learners to complete this assessment successfully?

iv. How to provide feedback

How can effective feedback be provided to help learners improve their learning during and after the assessment?

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 18 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
 - a. mark, record and upload your learners' assessment scores in the Student Transcript Portal.
 - b. read PLC Session 19, Teacher Manual and related Learner Material (NTS 3a).
 - c. bring along your Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - d. identify areas you found challenging in your planning and administering of the mid-semester assessment for discussion during the next session.

PLC Session 19: Components and Bioinstrumentation Principles of Diagnostic Devices

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 components and bioinstrumentation principles of diagnostic devices 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 components and bioinstrumentation principles of diagnostic devices (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Generate two thought-provoking questions that engage learners and teachers about the components and bioinstrumentation principles of diagnostic devices, etc.

ii. Differentiation

Propose strategies tailored for teaching the components and bioinstrumentation principles of diagnostic devices to a diverse class of 30 P, 10 HP, and 5 AP, etc.

iii. Learning activities

Plan four 90-minute activities with an introduction, main lesson and closure on the components and bioinstrumentation principles of diagnostic devices for 45 learners (30 P, 10 HP, 5 AP) in a resource-limited setting, while promoting SEL and national values, etc.

iv. Assessment tasks

Design two DoK levels 1 and 2 formative assessment tasks with rubrics to evaluate the stage after stage comprehension of students on the components and bioinstrumentation principles of diagnostic devices, 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 essential questions in the attached learning plan on the components and bioinstrumentation principles of diagnostic devices, to ensure they promote critical thinking and enhance teacher instructions, 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.

- **3.1** 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 find challenging in your teaching for discussion during the next session.

PLC Session 20: Explain the use of Prostheses and Orthoses to Manage, Correct, and Treat Disabilities

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 the use of prostheses and orthoses to manage, correct, and treat disabilities 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 the use of prostheses and orthoses to manage, correct, and treat disabilities (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop three essential questions regarding the use of prostheses and orthoses to manage, correct, and treat disabilities: one aimed at the teacher and two directed at learners, fostering critical thinking, etc.

ii. Differentiation

Suggest one differentiation strategy for teaching learners with varied abilities (30 P, 10 HP, and 5 AP), focusing on the management and treatment of disabilities using prostheses and orthoses, ensuring SEL, etc.

iii. Learning activities

Design 5 well-sequenced exploratory activities for 45 learners lasting 90 minutes, on the use of prostheses and orthoses. Ensure they highlight GESI and SEL, and structured into an introduction, main lesson, and closure.

iv. Assessment tasks

Develop two DoK levels 1 and 2 formative assessment tasks with rubrics for the 30 P, 10 HP, and 5 AP learners on the use of prostheses and orthoses in managing disabilities, 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

With reference to the curriculum confirm the suitability of the differentiation strategy included in the attached learning plan for instructing 40 learners, including 5 who are struggling, on the use of prostheses and orthoses in managing disabilities, 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.

- **3.1** 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:
 - read PLC Session 21, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 21: Investigate the Treatments and Therapies Available to Treat Cancer and its Physical, Mental, and Emotional Effects

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 the treatments and therapies available to treat cancer and its physical, mental, and emotional effects 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 the treatments and therapies available to treat cancer and its physical, mental, and emotional effects (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Draft two essential questions on cancer treatments; one for teacher reflection, and one to quide learner inquiry among all leaners, etc.

ii. Differentiation

Propose inclusive instructional strategies for teaching a lesson on cancer treatments and their impact to a class of 40 learners, including 5 who are struggling. These strategies should address varied learning styles and incorporate GESI principle, etc.

iii. Learning activities

Design five 90-minute activities on cancer treatments for 40 learners, with an engaging intro, main lesson, and reflective closure, highlighting GESI and SEL

iv. Assessment tasks

Create formative assessments with rubrics at all DoK levels recommended in the Teacher Manual on cancer treatments. The tasks should be tailored to 30 P, 10 HP, and 5AP learners, 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.





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

Attached is a learning plan on cancer treatments meant for 40 learners. Review the 90-minute activities in alignment with the Teacher Manual, ensuring they promote critical thinking and include GESI and SEL elements, 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.

- **3.1** 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:
 - a. read PLC Session 22, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 22: Explore the Future Application of Regenerative Medicine for Patients with Disabilities

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 the future application of regenerative medicine for patients with disabilities 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 the future application of regenerative medicine for patients with disabilities (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Develop 3 essential questions to guide learners and one for teacher on regenerative medicine for disabilities that promote critical thinking, etc.

ii. Differentiation

How can I adapt a lesson on regenerative medicine and disability for 25 proficient and 15 struggling learners? Suggest one inclusive strategy that support all, using GESI principles, etc.

iii. Learning activities

Propose 90-minute activities using low-cost resources for 40 learners on the future use of regenerative medicine for disabilities, with an introduction, main lesson activities, and closure. Include GESI and national values, etc.

iv. Assessment tasks

Create a 30-minute individual assessment tasks on the future role of regenerative medicine in disability care, for checking understanding. Use the Teacher Manual to guide DoK level, mode, and rubric.

Note

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

Hint



Move to Activity 3.0



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

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

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

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

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

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

E.g.

Assessment tasks

Review the assessment tasks in the uploaded learning plan on regenerative medicine and disability treatment for 40 learners. Ensure alignment with the recommended mode and DoK levels in the Teacher Manual, integrating critical thinking, 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.

- **3.1** 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:
 - a. read PLC Session 23, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 23: Critique and Compare Science Data Presented in Popular Media with Data Presented in Scientific Journals

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 critiquing and comparing science data presented in popular media with data presented in scientific journals 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 critique and compare science data presented in popular media with data presented in scientific journals (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

i. Essential questions

Suggest 3 essential questions that promote critical thinking and national values: one for the teacher and two for learners, on critiquing and comparing science data in popular media with data in scientific journals.

ii. Differentiation

With 25 AP, 10 HP and 5 struggling learners, provide one way to consider all learners with the varied ability levels in a lesson in Week 23 on comparing data presented in popular media versus scientific journals, that reflect SEL, etc.

iii. Learning activities

Recommend 90-minute group activities where learners compare science content from media and journals. Include an engaging start, guided analysis, and a reflective end that promotes SEL and national values, etc.

iv. Assessment tasks

Create two exit ticket questions using the recommended mode for Week 23; one basic (DoK 1) and one comparing sources (DoK 2 and 3) with a mark scheme.



Note

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





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

I have 30 P, 10 HP, and 5 struggling learners. Review the activities in the uploaded learning plan to ensure all learners can make progress in critiquing data by the end of the 90 minutes, 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.

- **3.1** 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:
 - read PLC Session 24, Teacher Manual and related Learner Material (NTS 3a).
 - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
 - c. identify areas you find challenging in your teaching for discussion during the next session.

PLC Session 24: Preparing for End of Semester Examination

1.0 Introduction (10 minutes)

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

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

- 1. review the completed learning plan for Week 24
- 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 tasks

Check the assessment tasks in the attached learning plan for Week 24 and provide feedback to their effectiveness for 40 learners with varied abilities in alignment with the Teacher Manual. Make suggestions for improvement to cater for all learners, 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.

Please create an end of second semester examination for Biomedical Science Year 2, covering Weeks 13-24. Refer to the Teacher Manual for focal areas from Week 13 to 24 and the structure below:

- 1. Paper 1: 50 multiple choice questions for 50 marks
- Paper 2: 4 essay questions for part A and part B
 Part A: 1 compulsory question for 20 marks
 Part B: 3 questions, learners will select any two for 15 marks each

Duration: 2hours for both paper 1 and 2

Strictly use 30% DOK 1, 40% DOK 2 and 30% DOK for both paper 1 and 2.



Note

In preparing for the 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 each question in the assessment and confirm if the DOK level assigned is correct. Identify any questions that may be incorrectly classified and suggest corrections.

ii. Mark scheme and score distribution

Verify that the mark allocation in the assessment appropriately reflects the importance of each learning outcome and content standard, ensuring no single area is over or under-weighted.

iii. Resources needed for assessment administration

What resources is needed for 40 learners to take the assessment?

iv. How to provide feedback

Suggest three appropriate ways to communicate students' strengths and weakness to them and how to improve learning, 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 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

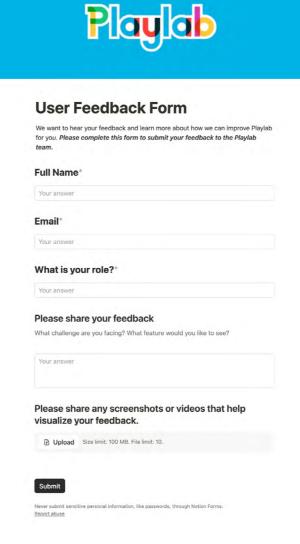
How to Report Issues or Get Support

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

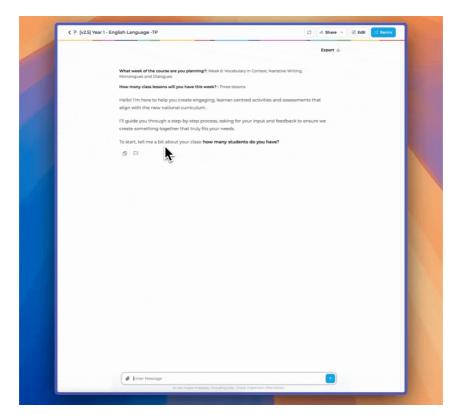
- 1. Email Support
 - For general issues: Send email to: support@playlab.ai
 - Include:
 - Your school name and region
 - Subject app you're using
 - Description of the issue
 - Screenshots or screen recordings (if possible)
 - Best for: School administrators reporting multiple app issues
 - Response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



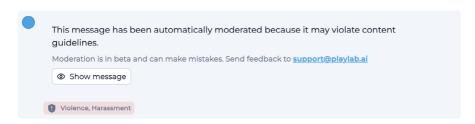
- Click to report biased, inaccurate, or inappropriate messages.
- Best for: Immediate issues with app responses
- There is also in app moderation for both user messages and Al generated responses. You can read more about it here.

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:

3. If something is consistently being flagged, you may want to address it in your implementation, make revisions to the app, or contact support@playlab.ai for more guidance.

Tips for Effective Reporting:

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

Additional Support Resources

- 1 App Basics:
 - Starting a conversation
 - 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	on					
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 wee	k)			
Refer to the Teacher Manual and Learner Material to complete this section						
Introduction						
Main Lesson						
Closure						

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

Appendix 3: Teacher Lesson Observation Form

Teacher Lesson Observation Form

Nam	e of School				
Subj	ect being observed				
Class	;				
	Yea	r1	Year 2	Year 3	
Sexo	f the teacher		Male	Female	
1.	Is the purpose of the lesson clearly stated in the lesson plan and focused on learners achieving the lesson learning outcomes?				
	Yes	In Part	No	NA	
b1.	Please provide an ex	xplanation to yo	ur answer in Q1 above	2	
2.	Are the unique needs of female learners, male learners, and learners with special education needs adequately catered for in the lesson plan? For example, the choice of teaching methods and learning activities reflects/does not reflect the learning needs of all learners. For example, the choice of teaching methods, and learning activities.				
	Yes	In Part	No	NA	

2b.	Please provide an ex	xplanation to your ansv	ver in Q2 above	
3.		anage behavior well, m g environment througl		and non-
	Yes	In Part	No	NA
3b.	Please provide an ex	xplanation to your ansv	ver in Q3 above	
4.	(including ICT, book	ching and learning mat s, desks) available, acc es, males and learners	essible and being use	d to support
	Yes	In Part	No	NA
4b.	Please provide an ex	xplanation 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 t	uniqueness of learners	?
	Yes	In Part	No	NA
5b.	Please provide an ex	xplanation to your ansv	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	irners 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

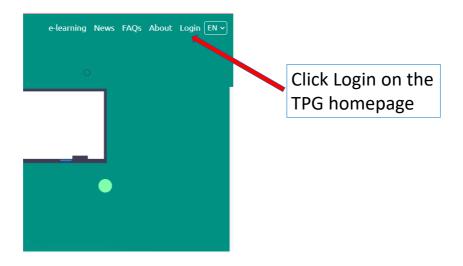
10b.	Please provide an explanation to your answer in Q10 above				
11.	lesson to support le	issues and /or 21st cent arners in achieving the king, communication? been so integrated.	learning outcomes e	.g., problem-	
	Yes	In Part	No	NA	
11b.	If yes, give example	s of the issues and skill	s that have 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 ex	xplanation to your ansv	ver in Q14 above	
15.	Do learners make us	se of feedback from tea	acher and peers?	
	Yes	In Part	No	NA
15b.	Please provide an ex	xplanation to your ansv	wer 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	wer in Q16 above	
17.		lanning of lessons tau arning over time, consi		
	Yes	In Part	No	NA
17b.	Please provide an ex	xplanation to your answ	wer 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 ex	xplanation to your answ	wer in Q18 above	

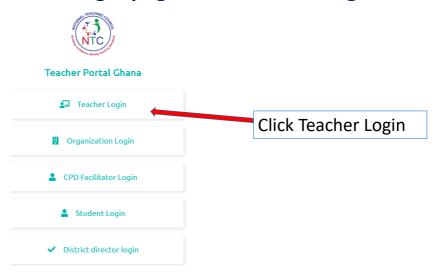
19.	Does the teacher provide constructive verbal feedback to both females and males and learners with special education needs?				
	Yes	In Part	No	NA	
19b.	Please provide an ex	xplanation to your ansv	wer in Q19 above		
20.		ovide constructive wri with special education			
	Yes	In Part	No	NA	
20b.	Please 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

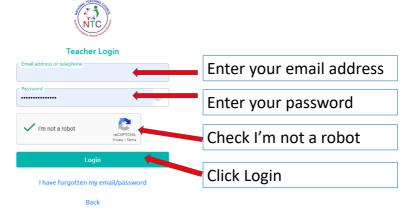
1. Visit tpg.ntc.gov.gh and click Login



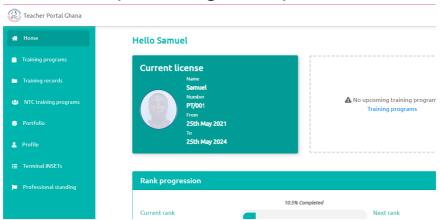
2. On the Login page, click Teacher Login



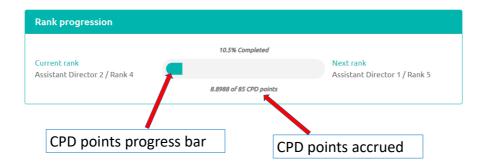
3. On the Teacher Login page enter your email address and password and then click Login



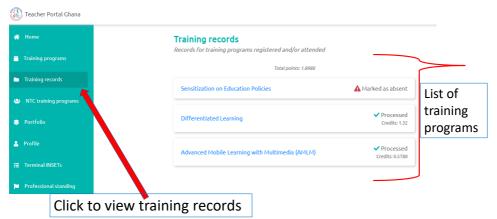
4. After a successful login you will get access to your TPG account (Check image below)



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