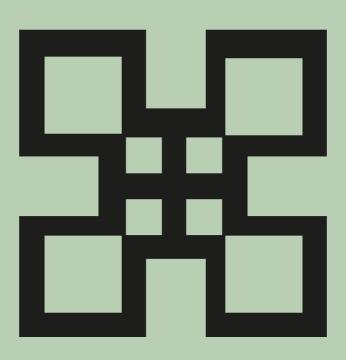
### **Professional Learning Community Handbook**

# Agricultural Science

### **Year Two**









## Professional Learning Community Handbook

# Agricultural 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/cmd932l2s055fh10uudu9v30i

Year Two App



https://www.playlab.ai/project/ cme6ekrbjofjxm30uhacwpg5z

## 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 <a href="https://www.playlab.ai/project/cme6ekrbj0fjxm30uhacwpg5z">https://www.playlab.ai/project/cme6ekrbj0fjxm30uhacwpg5z</a>



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

E.q.

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



#### Note

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

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

E.g.

#### a. Learning activities

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

#### b. Assessments

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

#### c. Differentiation strategies

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

#### Hint



Remember to askyour App to help you add 21<sup>st</sup> 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, 30-3p).

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

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

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

2.1 Open your App and have a chat with it.

E.g.

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

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

E.g. Select **Assessment** 

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



#### Note

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

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



#### Note

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

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

E.g.

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



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 21<sup>st</sup> 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: Scientific Experimental Procedure in Agricultural Science

#### 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 the learning planner for Week 1 on scientific experimental procedure in agricultural science 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 scientific experimental procedure in agricultural science 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 on scientific experimental procedure in agricultural science 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 scientific experimental procedure in Agricultural Science (NTS 3a-3q).

E.g.

#### i. Learning activities

I have a class of 44 learners, 2 have visual problem, 1 have hearing issues, 6 are Highly Proficient, 28 are Proficient and the rest are Approaching Proficient. Provide the pedagogies that can help with lesson activities using the teacher manual as a reference etc.

#### ii. Assessment tasks

Design a 30-minute formative assessment tasks with mark scheme/rubrics for a 120-minute lesson on the meaning and relevance of scientific experimental procedure in agricultural science. Cover DoK levels 1-3 Consider the recommended assessments in both the teacher manual and learner material etc.

#### iii. Differentiation

Based on my learner characteristics above, suggest 3 best possible ways I can provide targeted differentiation across the lesson delivery process to cater for all learners etc.

#### iv. Essential questions

Formulate 5 essential questions (two for the teacher and three for the learner) on week 1 indicators that will best support effective learning etc.

#### Note

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

#### 3.0 Enactment (20 minutes)

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



#### Note

You may record the enacted activity.

#### 4.0 Reflection (10 minutes)

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- **4.2** Identify a critical friend to observe your lesson in relation to PLC Session 1 to provide feedback on your lesson (NTS 1f, 1g).
- **4.3** Remember to:
  - a. read PLC Session 2, Teacher Manual and related Learner Material (NTS 3a).
  - b. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

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

#### 1.0 Introduction (10 minutes)

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

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

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

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

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

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

#### 2.0 Reviewing the Learning Plan (20 minutes)

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

#### E.g.

#### Learning activities

I have 44 learners (14 boys and 30 girls), 1 is a wheel chair user, 3 are visually impaired, 5 are fast learners and the rest are approaching proficiency. Review the learning activities in my learning plan for week 2 which I have attached and check for alignment with the teacher manual and suggest areas for improvement to suit diverse 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 to Assign, Assess and Record for the Student Transcript Portal (50 minutes)

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

#### E.g.

#### **Portfolio**

I have reviewed the structure and guidelines for organizing the portfolio assessment in the teacher manual. It recommends that the portfolio assessment should cover learning indicators in weeks 1 to 23 of the agricultural science teacher manual and should contain learners':

- a) Assignments
- **b)** Reports of Projects
- c) Quizzes and Tests
- d) Posters and Weeds album,
- e) Mid-semester and end of semester papers, etc

Cross check and suggest improvement for any gap you identified not aligning with any of the indicators.



#### **Note**

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

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

E.g.

#### i. Task

Based on your suggestions above, create an improved portfolio assessment tasks provide detailed rubrics or mark scheme with clear criteria that support diverse learner needs and are in line with DoK levels 1, 2 and 3.

#### ii. Mark scheme and score distribution

Check the mark scheme/rubrics for the appropriateness of the distribution of scores and refine it to make it better to ensure fairness.

#### iii. Resources needed for assessment administration

What are the necessary physical resources needed by both the teacher and the learners for the smooth administration of the portfolio?

#### iv. How to provide feedback

Suggest 3 appropriate ways to provide feedback to my learners after scoring the portfolio assessment.



#### Note:

Use the responses to complete your plan

#### 4.0 Reflection (10 minutes)

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 2 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
  - a. mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).

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

## PLC Session 3: Simple Scientific Measuring Tools for Assessing Parameters in Agricultural Production

#### 1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 2
  - a. the challenges you faced
  - b. how you addressed them
- **1.2** Have you developed your learning plan for week 3?
  - a. If you answered yes, conduct your PLC Session from Activity2.0B
  - 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

## 2.0APlanning and Reviewing of Learning Plan (50 minutes)

**Purpose:** The purpose for this session is to populate the learning planner for week 3 on Simple scientific measuring tools for assessing parameters in agricultural production using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 3 on Simple scientific measuring tools for assessing parameters in agricultural production (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

#### E.g.

#### i. Essential questions

With reference to the week 3 indicator in the teacher manual, provide 3 agricultural related essential questions (1 teacher related and 2 learners related) that will guide effective learning

#### ii. Differentiation

I have 44 learners (6 HP, 18 P, 20 AP), 14 boys and 30 girls in resource constraint rural School, guide me on how I can apply differentiation in my lesson.

#### iii. Learning activities

Based on the learner characteristics above and the recommended pedagogies in the teacher manual as well as the activities in learner material design appropriate practical agriculture related learning activities that will support learning

#### iv. Assessment tasks

Suggest the best formative practical agricultural assessment tasks that that will help the teacher to assess these diverse learners adequately



#### 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

# 2.0BReviewing 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

Based on the learner characteristics stated in the attached learning plan, the recommended pedagogies in the teacher manual and the activities in the learner material, check for the appropriateness of the learning activities whether they are practical agriculture in nature and will support learning. Suggest best ways for improving any gaps identified, etc.

#### Hint



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

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



#### Note

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

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

#### 3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

#### 4.0 Reflection (10 minutes)

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

## PLC Session 4: Preparing for Student Transcript Portal Assessment – Group Project

#### 1.0 Introduction (10 minutes)

- **1.1** Share one thing on assessment in PLC Session 3 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 4 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 4.
- 2. prepare assessment tasks and rubrics for group project.

**Learning Outcome (LO):** To review the learning plan for week 4 and address any challenges in planning and developing assessment tasks for the group project (NTS 2b, 2c, 2e, 2f, 3a, 3d, 3e, 3g–3k and 3o).

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

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

#### 2.0 Reviewing the Learning Plan (20 minutes)

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

#### E.g.

#### Differentiation

Attached is my learning plan for Week 4 for a class of 38 learners (2 boys and 36 girls) in a rural senior high school in Western North Region [teachers can replace with their region]. Review it and suggest how this learning plan can be refined to cater for the diverse needs of my learners.

#### Hint



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

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

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

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

#### E.g.

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



#### Note

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

#### E.g.

i. Task

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

ii. Mark scheme and score distribution

Provide matching rubrics to grade the task.

iii. Resources needed for assessment administration

Identify the resources learners would need to complete the task.

iv. How to provide feedback

Suggest guidelines for providing feedback to learners on their project work



**Note** 

Use the responses to complete your plan

#### 4.0 Reflection (10 minutes)

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 4 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 5, Teacher Manual and related Learner Material (NTS 3a).
  - c. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - d. identify areas you found challenging in your teaching and administration of the assessment for discussion during the next session.

# PLC Session 5: First Aid in Agricultural Production

#### 1.0 Introduction (5 minutes)

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

#### Hint



You cannot conduct PLC on Activity **2.0B** if you <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 first aid in agricultural production using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 4 on first aid in agricultural production (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

#### i. Essential questions

Suggest 5 agricultural related essential questions (2 teacher related and 3 learners related) that will guide effective learning in relation to week 5 indicator in the teacher manual on first aid in agricultural production, etc.

#### ii. Differentiation

I have 44 learners with diverse academic abilities, 14 are boys and 30 are girls. Two of them are visually impaired and one uses a wheel chair. Propose effective ways of carrying differentiation throughout the lesson to cater for all learners.

#### iii. Learning activities

What are the appropriate agricultural related learning activities based on the teacher manual and the learner materials that will support learners` understanding of first aid in agricultural production

#### iv. Assessment tasks

Design assessment tasks that align with the right DoK levels suggested in the teacher manual that ensures creativity and 21<sup>st</sup> century skills in agriculture



#### 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

#### 2.0BReviewing 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

Study the attached learning plan for week 5 and check whether the assessment tasks are aligned with the right DOK levels suggested in the teacher manual? suggest better alternatives that ensures 21st century skills and creativity and also aligned with the DoK levels.

#### 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 21<sup>st</sup> 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 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
  - 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 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.q.

## Learning activities

Attached is my learning plan for week 6. Review the learning activities in the learning plan and check for its appropriateness with regards to the pedagogies in the teacher manual, and the time allocations. Suggest areas for improvement to suit all the learners.

## Hint



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

- a. essential questions
- b. differentiation
- 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.

I have reviewed the structure and guidelines for setting the midsemester examination in the teacher manual. It recommends that the mid-semester examination should cover learning indicators in weeks 1 to 5 of the agricultural science teacher manual and should contain:

- i. 15 multiple-choice questions (15 marks),
- ii. 3 essay type questions (15 marks) and
- iii. 1 practical question (20 marks), across DoK levels 1, 2 and 3.

Modify the table of specification for this mid-semester examination in the teacher manual and ensure it is in line with the following ratio: DoK level 1(30%), Level 2 (40%), and Level 3 (30%).

# Follow up Chat

Create the assessment tasks based on the modified table of specification and provide detailed rubrics or mark scheme with clear criteria that support diverse learner needs.

Is the 1 hour 30 minutes time allocated for this examination appropriate for all the learners? etc.



In preparing for 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.q.

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

Check and confirm for me if the assessment task created above are at the right DoK levels and whether it follow the DoK level 1(30%), level 2 (40%), and level 3 (30%) rule.

#### ii. Mark scheme and score distribution

Check and improve the rubrics provided for grading essay questions for it to show how to arrive at the final score for each performance criterion.

Confirm the accuracy of the marks allocated for the various parts of the mark scheme and correct any addition errors.

#### iii. Resources needed for assessment administration

What are the appropriate resources needed for learners to smoothly complete this mid-semester examination?

### iv. How to provide feedback

Suggest 2 appropriate ways I can give feedback to my learners after scoring the mid-semester examination (for peer groups and individuals).

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 6 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
  - mark, record and upload your learners' assessment scores in the Student Transcript Portal.

- **b.** read PLC Session 7, Teacher Manual and related Learner Material (NTS 3a).
- c. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
- d. identify areas you found challenging in your planning and administering of the assessment for discussion during the next session.

# PLC Session 7: Startup Packages and Patterns of Growth of Successful Arable Crop Enterprises

# 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 startup packages of arable crop enterprises 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 startup packages of arable crop enterprises (NTS 1a, 2b, 2c, 2e-2h and 3a-3q). *E.q.* 

## i. Essential questions

Suggest 3 essential questions (1 teacher related and 2 learners related) that will guide effective learning in relation to Week 7 indicator in the Teacher Manual on startup packages of arable crop enterprises, etc.

#### ii. Differentiation

I have 44 learners with diverse learning abilities. 18 are boys and 26 are girls. Two of them are visually impaired and one has hearing issues. Propose effective ways of considering differentiation throughout the lesson to cater for all learners.

## iii. Learning activities

Suggest 4 appropriate step by step learning activities based on the Teacher Manual and the Learner Material s that will support learners` understanding of startup packages of arable crop enterprises

#### iv. Assessment tasks

Create assessment tasks that align with the right DoK levels suggested in the Teacher Manual for the learning of startup packages of arable crop enterprises.



#### Note

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





Move to Activity 3.0

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

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

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

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

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

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

E.g.

#### Assessment tasks

Attached is my learning plan for Week 7, review and check whether the assessment tasks are aligned with the right DOK levels suggested in the Teacher Manual? Based on your observations, suggest better alternatives that ensures 21st century skills.

# 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 21<sup>st</sup> 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).



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: Precision Agriculture in Arable Crop Enterprises

# 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 precision agriculture in arable crop enterprises 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 precision agriculture in arable crop enterprises (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

# i. Essential questions

Formulate 5 essential questions (2 teacher related and 3 learners related) that will guide effective learning in relation to Week 8 indicator in the Teacher Manual on precision agriculture in arable crop enterprises, etc.

#### ii. Differentiation

I have 34 learners with diverse learning abilities. 10 are boys and 24 are girls. Two of them are visually impaired and one has hearing issues. Suggest effective ways of carrying differentiation throughout the lesson on precision agriculture in arable crop enterprises to cater for all learners.

# iii. Learning activities

Considering the suggest pedagogical strategies in the Teacher Manual and the Learner Material s, propose 4 learning activities that will support learners' understanding of precision agriculture in arable crop enterprises?

## iv. Assessment tasks

Create 2 assessment tasks that align with the right DoK levels suggested in the Teacher Manual and can support understanding of precision agriculture in arable crop enterprises



#### 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 21<sup>st</sup> 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

Attached is my learning plan for Week 8, review and check whether the differentiation strategies I have provided are appropriate for the 34 learners in my class at varying proficiency levels.

#### Hint



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

- a. essential questions
- b. assessment tasks
- c. 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 21<sup>st</sup> century skills in your learning activities, assessment tasks and rubrics/mark scheme.

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

# 3.0 Enactment (25 minutes)

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



Note

You may record the enacted activity.

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 8 to provide feedback on your lesson (NTS 1f, 1g).
- **4.3** Remember to:
  - a. read PLC Session 9, Teacher Manual and related Learner Material (NTS 3a).
  - **b.** bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

# PLC Session 9: Mini-Sett Technique in Seed Yam Production

# 1.0 Introduction (5 minutes)

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

## Hint



You cannot conduct PLC on Activity **2.0B** if you <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 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 (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

## i. Essential questions

Suggest 3 essential questions to guide my lessons on "Mini-Sett Technique in Seed Yam Production," focusing on the core content, using teaching strategies adapted to learners with diverse abilities in a resource-constrained environment and integrating 21st-century skills, national values, SEL and GESI into the lesson.

#### ii. Differentiation

Provide four key points to consider to effectively support all 70 learners in my class as I teach "Mini-Sett Technique in Seed Yam Production" this week. Learners are at different proficiency levels, have varied learning styles, and most of them have never seen an aircraft.

# iii. Learning activities

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

#### iv. Assessment tasks

Provide a research task for 7 groups in line with this week's lessons. The task will be for 2 weeks and each group will provide a research report. Include rubrics for grading the presentations. Integrate 2st century skills, SEL and national values in the rubric.



- 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 21<sup>st</sup> century skills in your learning activities, assessment tasks and rubrics/mark scheme.





# Move to Activity 3.0

# 2.0BReviewing 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

Do my assessment tasks align with the right DOK levels suggested in the teacher manual? if they do not, suggest better alternatives that are aligned with the DoK levels and ensures 21st century skills and creativity.

# 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

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

# 3.0 Enactment (25 minutes)

- Enact a teaching activity in your plan (NTS 1b, 1f, 1g, 2c, 2e, 2f and 3.1 3c-3j).
- Reflect on the activity enacted to improve lesson delivery (NTS 1a). 3.2
- 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).
- Identify a colleague to observe your lesson in relation to PLC Session 4.2 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).
  - identify areas you find challenging in your teaching for discussion c. during the next session.

# PLC Session 10: Different Types of Machinery Used in Arable Crop Production

# 1.0 Introduction (5 minutes)

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

# Hint



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

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

**Purpose:** The purpose for this session is to populate the learning planner for Week 10 on different types of machinery used in arable crop production using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 10 on different types of machinery used in arable crop production (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.q.

# i. Essential questions

Suggest 3 essential questions that will guide effective learning in relation to Week 10 indicator in the Teacher Manual on different types of machinery used in arable crop production, etc.

#### ii. Differentiation

I have 34 learners with diverse learning abilities in a resource constraint school. 10 are boys and 24 are girls. Two of them are visually impaired and one has hearing issues. Recommend effective ways of carrying differentiation in the lesson to cater for all learners.

# iii. Learning activities

Propose appropriate learning activities based on the Teacher Manual and the Learner Material that will support learners understanding of the different types of machinery used in arable crop production

#### iv. Assessment tasks

Design formative assessment tasks and rubrics/mark scheme that align with the right DoK levels suggested in the Teacher Manual that ensures national values and 21st century skills on the different types of machinery used in arable crop production.



#### Note

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

Hint



Move to Activity 3.0

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

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

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

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

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

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

E.g.

# Differentiation

Attached is my learning plan for Week 10, review it and check whether the differentiation strategies I have provided are suitable for the 34 learners in my class at varying proficiency levels. Suggest improvement for any gaps observed.

# Hint



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

- a. essential questions
- b. assessment tasks
- c. 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 21<sup>st</sup> 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:
  - a. read PLC Session 11, Teacher Manual and related Learner Material (NTS 3a).
  - **b.** bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

# PLC Session 11: Different types of machinery used in arable crop production

# 1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 10
  - a. the challenges you faced
  - b. how you addressed them
- **1.2** Have you developed your learning plan for Week 11?
  - a. If you answered yes, conduct your PLC Session from Activity2.0B
  - 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 operating different types of machinery for arable crop production using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 11 on operating different types of machinery for arable crop production (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.q.

# i. Essential questions

Recommend 3 essential questions that will guide effective learning in relation to Week 11 indicator in the Teacher Manual on production of selected arable crops., etc.

#### ii. Differentiation

I have 54 learners with diverse learning abilities in a resource constraint school. 14 are boys and 40 are girls. Three of them are visually impaired and one has hearing issues. Propose effective ways of carrying differentiation in the lesson to cater for all learners.

# iii. Learning activities

Suggest appropriate agricultural related learning activities based on the Teacher Manual and the Learner Material s that will support learners understanding of operation of different types of machinery for arable crop production.

#### iv. Assessment tasks

Create formative assessment tasks and rubrics/mark scheme that align with the right DoK levels suggested in the Teacher Manual on operating different types of machinery for arable crop production



#### 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

Attached is my learning plan for Week 11, review it and check whether the formative assessment task and mark scheme are appropriate for the learners and aligned to the recommended DoK levels in the Teacher Manual. Suggest improvement for any gaps observed.

# 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 21<sup>st</sup> 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).



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.q.

## Learning activities

Attached is my learning plan for week 12. Check and review my learning activities for appropriateness with regards to its encouraging curiosity, GESI, and critical thinking, especially in a rural Ghanaian classroom with limited resources. etc.

## Hint



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

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

# 3.0 Prepare for End of Semester Examination (50 minutes)

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

## E.g.

The structure and guidelines for setting the end of semester examination in the Teacher Manual recommends that, the end of semester examination should cover learning indicators in weeks 1 to 11 of the agricultural science Teacher Manual and should contain: 50 multiple-choice questions (50 marks), 5 essay type questions (20 marks each, and learners are to answer any 3) and 2 practical questions (20 marks each, both to be answered by learners), across DoK levels 1, 2 and 3.

Modify the table of specification for this end of semester examination in the Teacher Manual and ensure it is in line with the following ratio: DoK level 1(30%), Level 2 (40%), and Level 3 (30%).



#### 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.

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

Check and confirm for me if the assessment task created above follow the DoK level 1(30%), level 2 (40%), and level 3 (30%) rule and whether the tasks are at the right DoK levels. Provide improvement for any gaps you may observe.

### ii. Mark scheme and score distribution

Check and improve on the rubrics provided for grading essay questions to ensure they sum up to the final score for each performance criterion.

#### iii. Resources needed for assessment administration

What are the appropriate physical resources needed for learners to smoothly write this end of semester examination?

## iv. How to provide feedback

Suggest appropriate ways I can give feedback on strengths and areas for improvement to my learners and support to support learners to do peer feedback ensuring SEL.

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 12 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
  - mark, record and upload your learners' assessment scores in the Student Transcript Portal (NTS 3j, 3n).
  - **b.** 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 administering of the assessment for discussion during the next session.

# PLC Session 13: Production of Selected Arable Crops

# 1.0 Introduction (5 minutes)

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

# Hint



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

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

**Purpose:** The purpose for this session is to populate the learning planner for Week 13 on production of selected arable crops using the subject specific App.

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

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

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

2.1 Refer to your Teacher Manual and have a chat with your subject specific App to develop your learning plan for Week 13 on production of selected arable crops (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

# i. Essential questions

Recommend 2 essential questions that will guide effective learning in relation to Week 13 on production of selected arable crops, etc.

### ii. Differentiation

I have 54 learners with diverse learning abilities in a resource constraint school. 14 are boys and 40 are girls. One is visually impaired and two of them have hearing issues. Propose key notes on differentiation that will cater for the needs of all learners.

# iii. Learning activities

Recommend appropriate agronomic related learning activities based on the Teacher Manual and the Learner Material that will support learners understanding of production of selected arable crops.

#### iv. Assessment tasks

Generate formative assessment tasks and rubrics/mark scheme that align with the right DoK levels suggested in the Teacher Manual that ensures national values and 21st century skills on production of selected arable crops.



#### 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 21<sup>st</sup> 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

Attached is my learning plan for Week 13, review it and check whether the formative assessment task and mark scheme are appropriate for the learners and aligned to the recommended DoK levels in the Teacher Manual. Suggest improvement for any gaps observed.

# 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 21<sup>st</sup> century skills in your learning activities, assessment tasks and rubrics/mark scheme.

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

# 3.0 Enactment (25 minutes)

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

# Note



You may record the enacted activity.

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 13 to provide feedback on your lesson (NTS 1f, 1g).
- **4.3** Remember to:
  - a. read PLC Session 14, Teacher Manual and related Learner Material (NTS 3a).
  - **b.** bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

# PLC Session 14: Production of Selected Arable Crops (Post-Planting Activities/ Cultural Practices/Crop Management Practices)

# 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 production of selected arable crops (postplanting activities/cultural practices/crop management practices) 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 production of selected arable crops (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

# i. Essential questions

Recommend 5 suitable essential questions that will guide effective learning in relation to Week 14 indicator in the Teacher Manual on post-planting activities/cultural practices/crop management practices, etc.

#### ii. Differentiation

I have 54 learners with diverse learning abilities in a resource constraint school. 14 are boys and 40 are girls. Suggest effective ways of ensuring differentiation in the lesson on post-planting activities and crop management practices, etc.

# iii. Learning activities

Recommend appropriate agronomic related learning activities based on the Teacher Manual and the Learner Material that will support learners understanding of production of selected arable crops. Take into consideration national values and 21st century skills.

#### iv. Assessment tasks

Generate formative assessment tasks and rubrics/mark scheme that align with the right DoK levels suggested in the Teacher Manual on production of selected arable crops.



- 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 21<sup>st</sup> century skills in your learning activities, assessment tasks and rubrics/mark scheme.





# Move to Activity 3.0

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

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

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

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

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

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

E.g.

#### Assessment tasks

Attached is my learning plan for Week 14, review it and check whether the formative assessment task and rubrics/mark scheme are appropriate for the learners and are aligned to the recommended DoK levels in the Teacher Manual. Suggest improvement for any gaps observed.

### 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 21<sup>st</sup> 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: Post-Harvest Practices and Marketing of Selected Arable Crop Produce

# 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 post-harvest practices and marketing of selected arable crop produce 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 post-harvest practices and marketing of selected arable crop produce (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

#### i. Essential questions

Recommend 5 suitable essential questions that will guide effective learning in relation to Week 15 on post-harvest practices and marketing of selected arable crop produce in the Teacher Manual, etc.

#### ii. Differentiation

Suggest 3 key notes on differentiation that consider in teaching production of selected arable crops to a class of 42 learners (12 boys and 30 girls) with diverse learning abilities in a resource constraint school.

#### iii. Learning activities

Provide 4 GESI-responsive learning activities based on the Teacher Manual and the Learner Material that will support learners understanding of post-harvest practices and marketing of selected arable crop produce. Take into consideration national values, 21st century skills.

#### iv. Assessment tasks

Create formative assessment tasks and rubric/mark scheme that align with the right DoK levels suggested in the Teacher Manual on post-harvest practices and marketing of selected arable crop produce, 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 21<sup>st</sup> 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 my learning plan for Week 15, review it and check whether the learning activities will encourage participation of all learners? Suggest improvement for any gaps observed.

#### 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 21<sup>st</sup> 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).



You may record the enacted activity.

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

# PLC Session 16: Resources and Market Needs for Producing Ruminants

### 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 resources and market needs for producing ruminants 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 resources and market needs for producing ruminants (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.q.

#### i. Essential questions

Create 5 suitable essential questions that will guide effective learning in relation Week 16's lesson on resources and market needs for producing ruminants, etc.

#### ii. Differentiation

I have 42 learners with diverse learning abilities and needs in a resource constraint school. 12 are boys and 30 are girls. Suggest differentiated strategies that cater for the needs of all learners, etc.

#### iii. Learning activities

Recommend appropriate GESI-responsive learning activities based on the Teacher Manual and the Learner Material that will support learners' understanding of resources and market needs for producing ruminants. Incorporate national values, 21st century skills, and GESI, etc.

#### iv. Assessment tasks

Create formative assessment tasks and rubrics/mark scheme that align with the right DoK levels suggested in the Teacher Manual on resources and market needs for producing ruminants, 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 21<sup>st</sup> 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 my learning plan for Week 16, review it and check whether the learning activities will encourage participation of all learners? Suggest ways of improving any gaps observed and incorporate it.

#### 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 21<sup>st</sup> 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).



You may record the enacted activity.

- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 16 to provide feedback on your lesson (NTS 1f, 1g).
- **4.3** Remember to:
  - read PLC Session 17, Teacher Manual and related Learner Material (NTS 3a).
  - **b.** bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

# PLC Session 17: Production of Small Ruminants for Meat

## 1.0 Introduction (5 minutes)

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

#### Hint



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

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

**Purpose:** The purpose for this session is to populate the learning planner for Week 17 on production of small ruminants for meat 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 production of small ruminants for meat (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

#### i. Essential questions

Create 4 essential questions that will guide effective learning in relation to Week 17 of the Teacher Manual on production of small ruminants for meat. Ensure the questions promote 21st-century skills, inclusiveness and national values, etc.

#### ii. Differentiation

With UDL in mind, suggest effective ways of carrying differentiation throughout the lesson to cater for the needs of my class of 12 boys and 30 girls with mixed-abilities. One learner is visually impaired and two of them have hearing issues with one using wheel chair.

#### iii. Learning activities

Design appropriate hands-on learning activities based on the pedagogies recommended in Teacher Manual and the Learner Material that will support learners' understanding of production of small ruminants for meat. Use locally available materials. Ensure national values, 21st century skills, and GESI.

#### iv. Assessment tasks

Create group and individual-based formative assessment tasks with rubrics/mark scheme that align with the right DoK levels suggested in the Teacher Manual. The tasks should be able to evaluate how well learners can explain or demonstrate understanding of production of small ruminants for meat.



#### Note

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

#### Hint



Move to Activity 3.0

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

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

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

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

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

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

E.g.

#### Differentiation

I have attached my learning plan for Week 17, review it and check whether the differentiation strategies will encourage participation of all learners? Suggest ways of improving any gaps observed and incorporate it.

#### 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 21<sup>st</sup> century skills in your learning activities, assessment tasks and rubrics/mark scheme.

- 2.1 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).
- **2.2** 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 17 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
  - 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
  - applied in your lesson delivery
  - b. found challenging and how you addressed it.
- **1.2** Share one challenge you encountered while populating your learning plan for week 18 before the session that you would like to discuss during this PLC session.
- 1.3 Read and discuss the Purpose, Learning Outcome (LO) and Learning Indicators (LIs) for the session.

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

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

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

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

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

# 2.0 Reviewing the Learning Plan (20 minutes)

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

#### E.g.

#### Differentiation

Attached is my learning plan for week 18. Check and improve the suitability of my key notes on differentiation and improve it to cater for diverse learners and to support struggling students in a large class with limited resources.

#### 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 structure and guidelines for setting the mid-semester examination recommends that the examination should cover learning indicators in weeks 13 to 17 of the agricultural science Teacher Manual and should contain:15 multiple-choice questions (15 marks), 3 essay type questions (15 marks) and 1 practical question (20 marks), across DoK levels 1, 2 and 3.

Modify the table of specification for this mid-semester examination and create assessment tasks based on the modified table of specification to be done in 1 hour 30 minutes, and provide detailed rubrics or mark schemes with clear criteria that support diverse learner needs.



#### Note

In preparing for 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.q.

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

Check and confirm for me if the assessment task created above follow the DoK level 1(30%), level 2 (40%), and level 3 (30%) rule

ii. Mark scheme and score distribution

How accurate are the marks allocated for various parts of the mark scheme? If not improve it for me.

iii. Resources needed for assessment administration

What are the appropriate physical resources needed for the smooth administration of this mid-semester examination?

iv. How to provide feedback

Suggest 2 appropriate ways I can give feedback to my learners after scoring the mid-semester for peer groups and individuals

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

# PLC Session 19: Methods and benefits of rearing snails (heliciculture)

## 1.0 Introduction (5 minutes)

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

#### Hint



You cannot conduct PLC on Activity **2.0B** if you <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 methods and benefits of rearing snails (heliciculture) 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 methods and benefits of rearing snails (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.g.

#### i. Essential questions

Create 5 suitable essential questions that will guide effective learning in relation to Week 19 in the Teacher Manual on methods and benefits of rearing snails (heliciculture), etc.

#### ii. Differentiation

I have 42 learners with mixed-abilities in a resource constraint school. 12 are boys and 30 are girls. One is visually impaired, two of them have hearing issues and one uses wheel chair. Suggest effective ways of ensuring differentiation throughout the lesson to cater for the needs of all learners.

#### iii. Learning activities

Design appropriate hands-on learning activities based on the pedagogies recommended in Teacher Manual and the Learner Materials that will support learners understanding of methods and benefits of rearing snails (heliciculture). Use locally available materials. Ensure the learning activities promote 21st-century skills, inclusiveness and national values.

#### iv. Assessment tasks

Create group - and individual-based formative assessment tasks with rubrics/mark scheme that align with the right DoK levels suggested in the Teacher Manual. The tasks should be able to evaluate how well learners can explain or demonstrate understanding of methods and benefits of rearing snails (heliciculture).



#### **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 21<sup>st</sup> 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.

#### **Essential questions**

I have attached my learning plan for Week 19, review it and check whether the essential questions are good enough to encourage participation of all learners and to guide the attainment of concepts? Suggest ways of improving any gaps observed to be incorporated into the main plan.

#### Hint



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

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



#### 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 21<sup>st</sup> 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 3i).
- **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 19 to provide feedback on your lesson (NTS 1f, 1g).
- **4.3** Remember to:
  - a. read PLC Session 20, Teacher Manual and related Learner Material (NTS 3a).
  - **b.** bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

# PLC Session 20: Preparing for Student Transcript Portal Assessment – Individual Project

### 1.0 Introduction (10 minutes)

- **1.1** Share one thing on assessment in PLC Session 19 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 20 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 20
- 2. prepare assessment tasks and rubrics for individual project

**Learning Outcome (LO):** To review the learning plan for week 20 and address any challenges in planning and developing assessment tasks for the 20 (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.

#### Assessment tasks

I have attached my leaning plan on Week 20 of the TM. Evaluate the suitability of the assessment tasks in the learning plan and suggest ways of addressing any gaps you observed in order to refine it to cater for the diverse needs of my learners.

#### 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.

I have read about the individual project in week 20 of the teacher manual. It asked learners to conduct research on grasscutter production in Ghana and write a report on their findings. Review the individual project task for its appropriateness and identify any gaps with suggestions for improving it.



#### **Note**

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

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

E.q.

i. Task

Review the task to cater for the highly proficient, proficient and approaching proficient learners in a resource constrained Senior High School in rural Ghana.

#### ii. Mark scheme and score distribution

Revise the mark scheme to suit the refined task and ensure a uniform distribution of the marks to maintain fairness during scoring.

#### iii. Resources needed for assessment administration

What are the necessary material resources needed for the learners to complete this assessment?

#### iv. How to provide feedback

I need 3 simple but effective ways of giving targeted feedback to my learners after this assessment.



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 20 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 21, Teacher Manual and related Learner Material (NTS 3a).
  - c. bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - d. identify areas you found challenging in your teaching and administration of the assessment for discussion during the next session.

# PLC Session 21: Support Organisations for Arable Crop Farmers, Traders and Processors

# 1.0 Introduction (5 minutes)

- 1.1 Share one thing you applied in your classroom based on PLC Session 20
  - a. the challenges you faced
  - b. how you addressed them
- **1.2** Have you developed your learning plan for Week 21?
  - a. If you answered yes, conduct your PLC Session from Activity2.0B
  - 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 support organisations for arable crop farmers, traders and processors 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 Support organisations for arable crop farmers, traders and processors (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.q.

#### i. Essential questions

Create 5 essential questions that will guide effective learning in relation to the indicator of Week 21 in the Teacher Manual on support organisations for arable crop farmers, traders and processors, etc.

#### ii. Differentiation

Suggest 3 key notes that will guide differentiation throughout the lesson to cater for 40 learners with mixed-abilities in a resource constraint school with one visually impaired, two of them having hearing issues and one using wheel chair.

#### iii. Learning activities

The concept for the week is support organisations for arable crop farmers, traders and processors. Develop appropriate experiential learning activities based on the pedagogies recommended in Teacher Manual and the Learner Material.

#### iv. Assessment tasks

Create formative assessment tasks and rubrics/mark scheme that evaluate how well learners can demonstrate understanding of the support organisations for arable crop farmers, traders and processors. Ensure the tasks align with the DoK levels suggested in the Teacher Manual.



#### 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 21<sup>st</sup> 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

I have attached my learning plan for Week 21, review it and check if the questions can support AP, P, HP learners and students with visual or hearing challenges. Suggest ways of improving any gaps observed and incorporate it into the main lesson plan. Include.

#### Hint



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

- a. differentiation
- b. learning activities
- c. essential questions, 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 21<sup>st</sup> 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).



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: Stakeholder Linkage and Interactions in the Commodity Value Chain

# 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 stakeholder linkage and interactions in the commodity value chain 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 stakeholder linkage and interactions in the commodity value chain (NTS 1a, 2b, 2c, 2e-2h and 3a-3q).

E.q.

#### i. Essential questions

Generate 5 suitable essential questions that will guide effective learning in relation to Week 22 indicator in the Teacher Manual on stakeholder linkage and interactions in the commodity value chain, etc.

#### ii. Differentiation

I have 40 learners with mixed-abilities in a resource constraint school. 12 are boys and 28 are girls. Recommend 3 notes on differentiation that will direct how I can support all learners with divers needs to grasp the concept for Week 22.

#### iii. Learning activities

Develop 4 well-sequenced learning activities based on the pedagogies recommended in Teacher Manual and the Learner Material that will support learners understanding of the stakeholder linkage and interactions in the commodity value chain. Use local available materials.

#### iv. Assessment tasks

My lesson for this week is on stakeholder linkage and interactions in the commodity value chain, create assessment tasks with rubrics/mark scheme that align with the DoK levels suggested in the Teacher Manual. Ensure the tasks are structured to support national values, 21st century skills, and GESI.



#### 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 21<sup>st</sup> 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 attached my learning plan for Week 22, review it and check whether the learning activities are good enough to encourage participation of all learners? Suggest ways of improving any gaps observed and incorporate it into the main lesson plan.

#### Hint



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

- a. differentiation
- b. assessment tasks
- c. essential questions, 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 21<sup>st</sup> 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 22 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to:
  - read PLC Session 23, Teacher Manual and related Learner Material (NTS 3a).
  - **b.** bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

# PLC Session 23: Approach, Methods and Importance of Agricultural Knowledge and Innovation Systems in Extension Delivery

# 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 approach, methods and importance of agricultural knowledge and innovation systems in extension delivery 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 approach, methods and importance of agricultural knowledge and innovation systems in extension delivery (NTS 1a, 2b, 2c, 2e-2h and 3a-3q). *E.a.* 

#### i. Essential questions

Create 5 suitable essential questions that will guide effective learning in relation to Week 23 on methods and importance of agricultural knowledge and innovation systems in extension delivery, etc.

#### ii. Differentiation

Suggest 3 key notes on differentiation to be considered in my learning plan as I prepare to teach my 40 learners with mixed-abilities in a resource constraint school. Recommend effective ways of ensuring differentiation throughout the lesson to cater for the needs of all learners.

#### iii. Learning activities

Develop appropriate learning activities based on the pedagogies recommended in Teacher Manual and the Learner Material that will support learners understanding of approach, methods and importance of agricultural knowledge and innovation systems in extension delivery. Use local available materials as much as possible.

#### iv. Assessment tasks

Create group and individual-based formative assessment tasks with rubrics/mark scheme that align with the DoK levels suggested in the Teacher Manual. The tasks should be able to evaluate how well learners can explain approach, methods and importance of agricultural knowledge and innovation systems in extension delivery.



#### 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 21<sup>st</sup> 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 my attached learning plan to ensure the essential questions are good enough to guide the explanation and application of the concept for Week 23.

#### Hint



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

- a. differentiation
- b. assessment tasks
- **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 21<sup>st</sup> 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 3i).
- **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 23 to provide feedback on your lesson (NTS 1f, 1g).
- **4.3** Remember to:
  - a. read PLC Session 24, Teacher Manual and related Learner Material (NTS 3a).
  - **b.** bring along your laptop, Teacher Manual and PLC Handbook in preparation for the next session (NTS 3a).
  - c. identify areas you find challenging in your teaching for discussion during the next session.

# PLC Session 24: Preparing for End of Semester Examination

## 1.0 Introduction (10 minutes)

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

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

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

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

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

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

## 2.0 Reviewing the Learning Plan (20 minutes)

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

#### E.g.

#### Assessment tasks

Attached is my learning plan for Week 24. Review the formative assessment in this learning plan and check if it aligns with the learning indicator 'effect of global warming on environmental and rural livelihood sustainability. 'follows DoK distribution, is practical for 65 learners in 120 minutes, and includes differentiation for diverse learners.

#### 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.q.

I have reviewed the structure and guidelines for setting the end of semester examination in the teacher manual. It recommends that the end of semester examination should cover learning indicators in weeks 13 to 23 of the Agricultural Science Teacher Manual and should contain: 50 multiple-choice questions (50 marks), 5 essay type questions (20 marks each, and learners are to answer any 3) and 3 practical questions (20 marks each, all to be answered by learners), across DoK levels 1, 2 and 3.

Modify the table of specification for this end of semester examination in the Teacher Manual ensuring it is in line with the following distribution: DoK level 1(30%), Level 2 (40%), and Level 3 (30%).

Create the assessment tasks to be done in 3 hours based on the modified table of specification and provide detailed rubrics or mark schemes with clear criteria that support diverse learner needs.



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.

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

Check and confirm for me if the assessment task created above follow the DoK level 1(30%), level 2 (40%), and level 3 (30%) rule and whether the tasks are at the right DoK levels. Provide improvement for any gaps you may observe.

ii. Mark scheme and score distribution

How accurate are the marks allocated for the various parts of the mark scheme? Are the additions correct?

iii. Resources needed for assessment administration

What are the appropriate physical resources needed for the smooth administration of this end of semester examination?

iv. How to provide feedback

Suggest appropriate ways I can give feedback to my learners after scoring the end of semester examination to peer groups or individual learners. Include both their strengths and areas for improvement.

#### 4.0 Reflection (10 minutes)

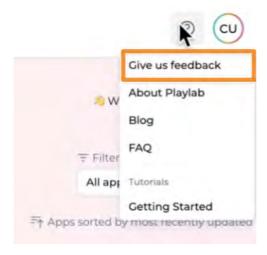
- **4.1** Reflect and share your views on the session (NTS 1a, 1b).
- 4.2 Identify a colleague to observe your lesson in relation to PLC Session 24 to provide feedback on your lesson (NTS 1f, 1g).
- 4.3 Remember to mark, record and upload your learners' assessment scores in the Student Transcript Portal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

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

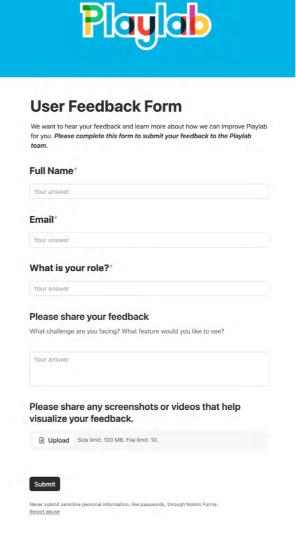
#### **How to Report Issues or Get Support**

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

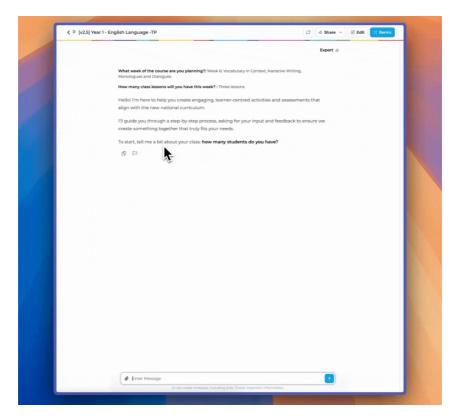
- 1. Email Support
  - For general issues: Send email to: support@playlab.ai
  - Include:
  - Your school name and region
  - Subject app you're using
  - Description of the issue
  - Screenshots or screen recordings (if possible)
  - Best for: School administrators reporting multiple app issues
  -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



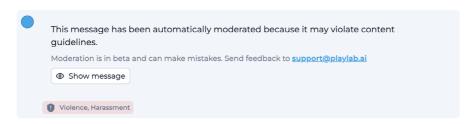
- Click to report biased, inaccurate, or inappropriate messages.
- Best for: Immediate issues with app responses
- There is also in app moderation for both user messages and Al generated responses. You can read more about it here.

#### 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							
Identify the different learner needs in your class and make notes on how to cater for them during the lesson							
Lesson	Lesson						
(complete per number of lessons for the week)							
Refer to the Teacher Manual and Learner Material to complete this section							
Introduction							
Main Lesson							
Closure							

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

# Appendix 3: Teacher Lesson Observation Form

## Teacher Lesson Observation Form

Nam	e of School						
Subject being observed							
Class	s						
	Yea	r1	Year 2	Year 3			
Sex	of the teacher		Male	Female			
1.	Is the purpose of the lesson clearly stated in the lesson plan and focused on learners achieving the lesson learning outcomes?						
	Yes	In Part	No	NA			
b1.	Please provide an ex	kplanation to yo	ur answer in Q1 above				
2.	<ol> <li>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.</li> </ol>						
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.	Does the teacher manage behavior well, maintaining a positive and non-threatening learning environment throughout the lesson?					
	Yes	In Part	No	NA		
3b.	Please provide an ex	xplanation to your ansv	ver in Q3 above			
4.	Are appropriate teaching and learning materials and other resources (including ICT, books, desks) available, accessible and being used to support learning of all females, males and learners with special education needs?					
	Yes	In Part	No	NA		
4b.	Please provide an ex	xplanation to your ansv	ver in Q4 above			
5.	Are leaners engaged on tasks that challenge them in line with the content standards?					
Does	the teacher take into	consideration the uniqu	eness of learners?			
	Yes	In Part	No	NA		
5b.	Please provide an ex	oplanation 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 ex	xplanation to your ansv	ver in Q6 above			
7.	Is teaching diferentiated to cater for the varied needs of all learners (i.e., male learners, female learners, learners with special education needs) and those with poor literacy and/or numeracy proficiency?					
	Yes	In Part	No	NA		
7b.	Please provide an ex	xplanation to your ansv	ver in Q7 above			
8.	Does the teacher us concepts?	e real life examples wh	ich are familiar to lea	rners to explain		
	Yes	In Part	No	NA		
8b	·	xplanation to your ans				
9.	Does the teacher point out or question traditional gender roles when they come up during the lessons as appropriate?					
	Yes	In Part	No	NA		
9b.	Please provide an e	xplanation to your ans	wer in Q9 above			
10.	Does the lesson include appropriate interactive and creative approaches e.g., group work, role play, storytelling to support learners achieving the learning outcomes?					
If yes, give examples of the issues and skills that have been so integrated.						
	Yes	In Part	No	NA		

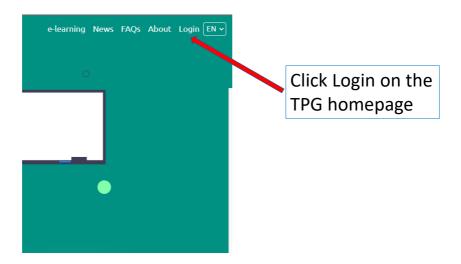
10b.	. Please provide an explanation to your answer in Q10 above				
11.	lesson to support le solving, critical thin	issues and /or 21st cen arners in achieving the king, communication?	e learning outcomes e	.g., problem-	
	and skills that have	been so integrated.			
	Yes	In Part	No	NA	
11b.	If yes, give example	s of the issues and skill	s that have been so ir	itegrated.	
12.	Does the teacher in	corporate ICT into thei	r practice to support l	earning?	
	Yes	In Part	No	NA	
12b.	Please provide an ex	xplanation to your ansv	wer in Q12 above		
13.	Does the teacher encourage all female male and male learners (including those who may be shy or afraid to speak) to ask questions, answer questions, participate in group work, etc. during the lesson?				
		, work, ever during the i			
	Yes	In Part	No	NA	
13b.	. Please provide an explanation to your answer in Q13 above				
14.	Is assessment evident in the lesson? If yes, does it include assessment as, for or of learning and go beyond recall?				
If yes	If yes, did it include assessment of, for or as learning and go beyond recall?				
-	•	•	No	NA	
	Yes	In Part	INU	INA	

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

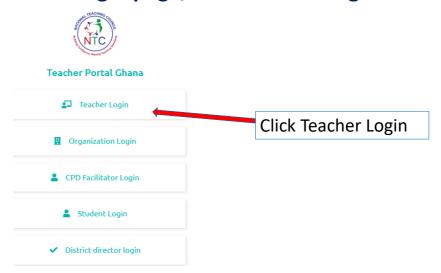
19.	Does the teacher provide constructive verbal feedback to both females and males and learners with special education needs?				
	Yes	In Part	No	NA	
19b.	Please provide an ex	xplanation to your ansv	wer in Q19 above		
20.		ovide constructive wri with special education			
	Yes	In Part	No	NA	
20b.	Please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

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

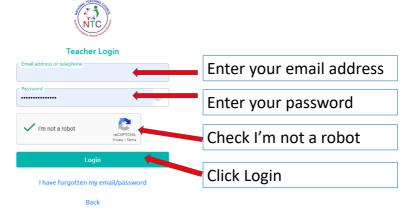
## 1. Visit tpg.ntc.gov.gh and click Login



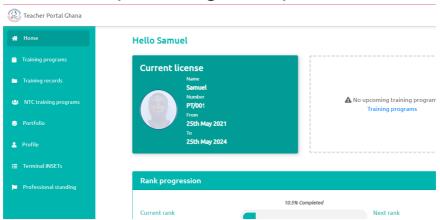
## 2. On the Login page, click Teacher Login



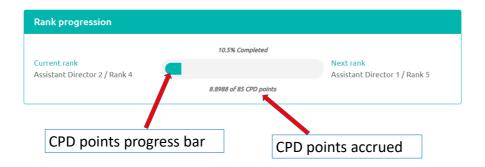
## 3. On the Teacher Login page enter your email address and password and then click Login



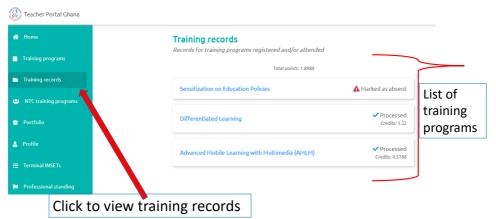
## 4. After a successful login you will get access to your TPG account (Check image below)



# 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**

