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| **Learning Planner** | | | | | | | |
| **Subject** | Agriculture | **Week** | 5 | **Duration** | 120 minutes | **Form** | 1 |
| **Strand** | Modern Technical and Mechanised Agriculture | **Sub-Strand** | Modern Technical Agriculture | | | | |
| **Content Standard** | Demonstrate knowledge and understanding of the meaning, importance and safety measures, as well as skills in operating farm machines and power. | | | | | | |
| **Learning Outcome(s)** | Use the knowledge and skills acquired to operate farm machines and power and observe the necessary safety measures in Agricultural production. | | | | | | |
| **Learning**  **Indicator(s)** | 1. Explain the meaning and importance of farm mechanics and power in Agricultural production. 2. Describe the safety measures employed in operating farm machines and power in Agricultural production. | | | | | | |
| **Essential Question(s)** | 1. How would the knowledge gained on the meaning and importance of farm mechanics and power in Agricultural production helps in the learners to choose their career opportunities in agriculture.  2. How will the undertaking and knowledge gained on safety measures employed in operating farm machines and power in Agricultural production helps learners operate farm machine and power without sustaining injuries on the field?  3.How would the knowledge gained on the meaning and importance meaning and importance of farm mechanics and power in Agricultural production boast crops and animal production in your country.  4. What pedagogical strategies will be used in teaching the meaning and importance of farm mechanic and power to enhance learners understanding?  5. To what extend will the use of Charts or pictures of tractor, solar system, bull, videos helps transfer or impart knowledge unto the learners | | | | | | |
| **Pedagogical Strategies** | Talk for learning, Experiential learning, Project-based learning, Problem-based learning, Experiential learning, etc. | | | | | | |
| **Teaching & Learning Resources** | Charts or pictures of tractor, solar system, bull, etc. | | | | | | |
| **Key Notes on Differentiation** | | | | | | | |
| Theme/Focal Area 1  i. Learning Tasks   * Explain the meaning of farm mechanisation. * Identify some of the farm machinery used in your community. * Explain the importance of farm mechanisation and farm power to Agricultural productivity.   ii. Pedagogical Exemplars   * Talk for learning: Learners in pairs brainstorm to come up with the meaning and importance of farm mechanisation and farm power. Teacher should use pictures/charts of farm machines and power to assist learners define farm mechanisation and power. Challenge gifted learners to give further explanation to the meaning and importance farm mechanisation and power. * Experiential learning: Learners in mixed-gender groups (where appropriate) embark on a field trip to a nearby farm/watch a video/picture on mechanisation in Agriculture to observe and document the machinery that is used in Agricultural activities and build a portfolio on their visit. Teacher should assist learners with difficulties with pictures and probing questions to help them build their portfolio on machinery used in Agricultural activities. All learners should be encouraged to participate in the activities. Teacher should ensure that all safety measures are adhered to when visiting the farm. Pictures/videos that portray gender bias should be avoided or when identified it should be discussed. * Project-based learning: In mixed-gender groups, learners present a report on the importance of mechanisation and farm power in Agricultural production. All learners should be encouraged to participate in the preparation of the report. Learners who are good with report preparation should be encouraged to support other learners.   iii. Key Assessments   * Assessment Level 1: State the meaning of farm machinery and farm power in Agricultural production. * Assessment Level 2: Discuss at least three (3) types of Agricultural machinery used in your community. * Assessment Level 3: Discuss the impact of farm machinery and farm power in commercial Agriculture. * Assessment Level 4: Present a report on the importance of farm machinery and power in Agricultural production based on the field trip/video watched.   Theme/Focal Area 2  i. Learning Tasks   * Explain safety measures employed in operating farm machines * Discuss examples of PPE used in Agricultural production * Demonstrate the correct usage of PPE’s: in Agricultural production.   ii. Pedagogical Exemplars   * Problem-based learning: In mixed-ability groups learners brainstorm to come up with examples of safety measures that need to be observed during Agricultural activities. Teacher should use videos/pictures to guide learners to identify safety measures employed during Agricultural activities. Gifted learners should be challenged to give more examples of the safety measures employed during Agricultural activities. Teacher should ensure that videos used are not gender bias. * Experiential learning: Put learners in mixed gender groups to visit farm machinery workshop or watch a video/picture on activities that are carried out at a farm site/machinery workshop and discuss the safety measures that should be put in place to avoid injuries. The teacher should ensure that all the safety protocols at the farm machinery workshop are strictly adhered to. learners should be guided with probing questions to come up with safety measures employed in Agricultural activities aside what they observed at the machinery workshop. * Experiential learning: Learners in gender-based groups perform a farm activity such as preparation of beds, application of fertilisers etc. and demonstrate the safety measures that should be put in place before performing the activity. All learners should be encouraged to participate in the activity. Learners who have difficulties in performing the activities should assisted. * Experiential learning: Learners in mixed ability groups demonstrate the appropriate use of some PPEs in Agricultural production. Learners with difficulties should be assisted by a master craftsman in doing the activities. Every leaner should be given the opportunity to practice the appropriate used of the PPEs in Agricultural production. This can be achieved when learners practice on a rota basis.   iii. Key Assessments   * Assessment Level 1: State two (2) Agricultural activities and their appropriate PPEs. * Assessment level 2: Explain at least two (2) safety measures that should be employed in operating a farm machine. * Assessment Level 3: Demonstrate how some PPE should be put on correctly before commencing a spraying exercise. * Assessment Level 4: Prepare a table showing at least three (3) farm activities involving the use of machinery and the possible safety measures that should be put in place to avoid accidents and injuries or damage. | | | | | | | |
| **Keywords/phrases** | Farm machines, farm power, safety measures, mechanisation, etc. | | | | | | |

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| **Lesson 1** | |
| **Main Lesson drawing on Concepts, Skills and Competencies to reinforce as in the Subject Teacher Manual** | |
| **Teacher Activity** | **Learner Activity** |
| **Starter Activity (e.g., 10 minutes)**  **Review learner’s previous knowledge using real life examples from their community by asking them to list the names of simple measuring tools in agriculture and their uses, in mixed ability groups. Ask learners to present their findings in class using whole class discussion.** | |
| **Introductory Activity (e.g., 10 minutes)**  **Lead learners to brainstorm and share ideas on the** meaning and importance of farm mechanics and power in Agricultural production.  **Hint: Encourage learners to show respect and tolerance for individual diverse views as they brainstorm and share their ideas.**  **Activity 1 (e.g., 45 minutes)**  Put learners in pairs brainstorm to come up with the meaning and importance of farm mechanisation and farm power by asking learners to surf the internet for pictures/charts, video of farm machines and power.  Hint: Challenge gifted learners to give further explanation to the meaning and importance farm mechanisation and power.    **Activity 2 (e.g., 45 minutes)**  Put learners in mixed-ability groups to brainstorm to come up with examples of safety measures that need to be observed during Agricultural activities using videos/pictures.  Hint: 1. Guide learners to identify safety measures employed during Agricultural activities.  2. Ensure that videos used are not gender bias | **Introductory Activity**  **brainstorm and share ideas on the** meaning and importance of farm mechanics and power in Agricultural production.    **Activity 1**  In pairs brainstorm to come up with the meaning and importance of farm mechanisation and farm power surfing the internet for pictures/charts, video of farm machines and power using the tablets available.  **Activity 2**  In mixed-ability groups watch videos/pictures and brainstorm to come up with examples of safety measures that need to be observed during Agricultural activities. |
| **Assessment DoK aligned to the Curriculum and Subject Teacher Manual** | |
| Level 1: State the meaning of farm machinery and farm power in Agricultural production.  Level 2: Discuss at least three (3) types of Agricultural machinery used in your community.  Level 3: Discuss the impact of farm machinery and farm power in commercial Agriculture.  Level 4: Present a report on the importance of farm machinery and power in Agricultural production based on the field trip/video watched. | |
| **Lesson Closure**  **In completing this part, refer to the Essential Questions to check that learning has taken place.** | |
| **Activity (e.g., 10 minutes)**  a) Debrief by asking learners questions on what they have learnt and whether the essential question have been addressed.  b. Summarize points and fill in gaps left by learners | |
| **Reflection & Remarks** | |
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| **Lesson 2** | |
| **Main Lesson drawing on Concepts, Skills and Competencies to reinforce as in the Subject Teacher Manual** | |
| **Teacher Activity** | **Learner Activity** |
| **Starter Activity (e.g., 10 minutes)**  In mixed ability group, learners mention some major activities at the farm and the implements used for them and present their result to entire group. | |
| **Introductory activity (e.g., 15 minutes)**  learners mixed ability group, draw and name the implements for the major activities in the farm.  **Activity 1 (e.g., 40 minutes)**  i. Learners in gender-based groups perform a farm activity such as preparation of beds, application of fertilisers etc.  ii. Learners in gender-based groups demonstrate the safety measures that should be put in place before performing the activity.  Hints:  i. All learners should be encouraged to participate in the activity.  ii. Learners who have difficulties in performing the activities should assisted.  **Activity 2 (e.g., 45 minutes)**  Learners in mixed ability groups demonstrate the appropriate use of some PPEs in Agricultural production.  Hints:  i. Learners with difficulties should be assisted by a master craftsman in doing the activities.  ii. Every leaner should be given the opportunity to practice the appropriate used of the PPEs in Agricultural production. | **Introductory activity**  In mixed ability group, draw and name the implements for the major activities in the farm.  **Activity 1**  In gender-based groups perform a farm activity such as preparation of beds, application of fertilisers etc.  In gender-based groups demonstrate the safety measures that should be put in place before performing the activity.  **Activity 2**  In mixed ability groups demonstrate the appropriate use of some PPEs in Agricultural production. |
| **Assessment DoK aligned to the Curriculum and Subject Teacher Manual** | |
| **Level**  Level 1: State two (2) Agricultural activities and their appropriate PPEs.  Level 2: Explain at least two (2) safety measures that should be employed in operating a farm machine  Level 3: Demonstrate how some PPE should be put on correctly before commencing a spraying exercise.  Level 4: Prepare a table showing at least three (3) farm activities involving the use of machinery and the possible safety measures that should be put in place to avoid accidents and injuries or damage. | |
| **Lesson Closure**  **In completing this part, refer to the Essential Questions to check that learning has taken place.** | |
| **Activity (e.g., 10 minutes)**  a) Debrief by asking learners questions on what they have learnt and whether the essential question have been addressed.  b. Summarize points and fill in gaps left by learners | |
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