AGRICULTURAL SCIENCES

LESSON PLAN: GRADE 11

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| Teacher:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Duration of lesson:** 2 periods/2hrs | School:Grade: 11 |
| **Critical Outcomes** | **1x** | **2x** | 3 | 4 | 5 | 6 | 7 | LO | ASSESSMENT STANDARD |
| **Developmental Outcomes** | 1 | 2 | **3****X** | 4 | 5 |  | **1x** | **1x** | **2x** |  |  |  |  |  |  |  |
| **Integration with other subjects**: Geography and English | **2x** | **1x** |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |
| **Knowledge area:** Soil Science | 4 |  |  |  |  |  |
| **Sub-content**/Concepts: Soil Temperature | **Assessment strategies** |
| Prior Knowledge: General knowledge about temperature | Teacher and peer, self assessment | Class work, Assignment  |
| **Teachers activities** | **Learners’ activities** | **Resources** | **Assessment evidence** | **Estimated time** |
| **Activity 1**The educator shall ask the learners to bring a black and white jersey to determine which of the two absorbs more heat more quickly and relate jerseys to soil colours.**Activity 2**Asks the learners to explain soil temperature and the factors that influence soil temp.**Activity 3**Give learners homework. | **Activity 1**The learners shall investigate the influence of colour to temperature..**Activity 2**Learners shall be expected to define soil temp and explain the factors that influence soil temp on their own.**Activity 3**Are expected to investigate by reading various sources of books (research) and identify the importance of soil temp on crop production. Learners shall write home work | Writing books Textbooks,Any other reading material that can enhance learning on this knowledge areaChalkboardSchool gardenThermometer  | Class-work activityAssignment | 30 min30 min30 min30 min |
| **Homework:** Learners complete activity given | **Expanded opportunity**: Activities for more practice |
| **Special needs:** Identify learners with special needs | **Enrichment:** More challenging activity |
| **DATE: HOD:** |  |

 AGRICULTURAL SCIENCES

 LESSON PLAN: GRADE 11

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| **Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_****Duration of lesson:** 2 periods/2hrs | School: Grade: 11 |
| **Critical Outcomes** | **1****X** | **2****X** | **3****X** | **4****X** | 5 | 6 | 7 | LO | **ASSESSMENT STANDARD** |
| **Developmental Outcomes** | **1****X** | 2 | **3****X** | 4 | 5 |  | **1x** | **1x** | **2x** |  |  |  |  |  |  |  |
| **Integration with other subjects**: English, Geography  | 2 | **1x** |  |  |  |  |  |  |  |  |
| 3 |  |  |  |  |  |
| **Knowledge area:** Soil Science | **4** |  |  | **3** | **4** |  |
| Sub-content/Concepts: Soil Air | **Assessment strategies** |
| Prior Knowledge: General knowledge about gases | Teacher and peer, self  | Task, observation, class work,  |
| **Teachers activities** | **Learners’ activities** | **Resources** | **Assessment evidence** | **Estimated time** |
| **Activity 1**The educator shall ask provocative questions on the gases found in the atmosphere and those gases shall eventually be related to those found in the soil**Activity 2**The teacher shall solicit suitable equipments or tools for the conduction of this experiment.( e.g. a container with dry soil and water)**Activity 3**Teacher will be guiding and correcting the leaner’s input on the relation between water and air**Activity 4**The educators instruct the learners to write a home work on the importance of the soil | **Activity 1**Learners must be in a position to analyze the differences between gases found in the soil (soil air). **Activity 2**The learners will demonstrate the presence of air in the soil by means of experiment.(air-water displacement)The learners will further write the observations **Activity 3**Learner shall present and explain the findings of the above experiment.**Activity 4**The learners must be in a position to single out the importance of soil air using various text books (research) | Writing books , Worksheets, ChalkboardWall chartsLearners books TextbooksDVD School garden | Presentation sheetCase study | 30 min30 min30 min30 min |
| **Homework:** Learners complete activity given | **Expanded opportunity:** Activities for more practice |
| **Special needs**: Identify learners with special needs | **Enrichment:** More challenging activity |

LESSON PLAN: GRADE 11

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| Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Duration of lesson: 1 period ( 1st week) | School: Grade: 11 |
| **Critical Outcomes** | **1****X** | **2****x** | **3****X** | 4 | 5 | 6 | 7 | **LO** | **ASSESSMENT STANDARD** |
| **Developmental Outcomes** | **1****X** | **2****x** | 3 | 4 | 5 |  | **1x** | **1x** | **2x** |  |  |  |  |  |  |  |
| **Integration with other subjects**: Geography and English | **2x** | **1x** |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Knowledge area:** Soil Science |  |  |  |  |  |  |
| **Sub-content**/Concepts: Soil Color | **Assessment strategies** |
| **Prior Knowledge:** General knowledge about soil types | Teacher and peer, self assessment | Task, observation,  |
| **Teachers activities** | **Learners’ activities** | **Resources** | **Assessment evidence** | **Estimated time** |
| **Activity 1**The educator shall group the learners and facilitate deliberations from the learners whilst guiding them through the characteristics of the soil colours.**Activity 2**Explain the concepts “homogeneous and non-homogeneous/Mottled” colors that shall help learners to consolidate a sound definition.**Activity 3**The learners shall on the following day be given a spot test on soil colors | **Activity 1**Learners shall collect soil samples of different colors, differentiate, discuss and interpret the soil colors.**Activity 2**Identify homogeneous soil colours from non homogenous colours Learners shall discuss the characteristics of soil colours in groups. **Activity 3**The learners shall write a spot test | Visual aids, Writing books , Textbooks,Chalkboard Learners booksSchool garden | Class work activity | 30 min10 min20 min |
| **Homework**: Learners complete activity given and commence with assessment | **Expanded opportunity:** Activities for more practice |
| **Special needs:** Identify learners with special needs and assist them | **Enrichment:** More challenging activity |

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LESSON PLAN: GRADE 11

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| Teacher:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Duration** : 1 period/1hr | School:Grade: 11 |
| **Critical Outcomes** | **1****x** | **2****x** | **3****x** | **4****X** | 5 | 6 | 7 | **LO** | **ASSESSMENT STANDARD** |
| **Developmental Outcomes** | **1****x** | 2 | **3****x** | **4****X** | 5 |  | **1x** | **1x** | **2x** |  |  |  |  |  |  |
| **Integration with other subjects:** Geography, English | **2x** | **1x** |  |  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Knowledge area**: Soil Science |  |  |  |  |  |  |
| **Sub-content/**Concepts: Soil Texture | **Assessment strategies** |
| Prior Knowledge: General knowledge about soil types | Teacher and peer, self assessment | Task, observation, class work,  |
| **Teachers activities** | **Learners’ activities** | **Resources** | **Assessment evidence** | **Estimated time** |
| **Activity 1**The teacher shall bring different soil samples for presentation of the lesson e.g. Sand, silt, clay, and water.**Activity 2**The educator shall instruct learners to bring containers with equal holes underneath to gauge water permeability in the soil.Conclusion and Class work is given.**Activity 3**The educator should ask questions that construct the experiences that learners have felt in the soil samples above to prompt a definition.(activity 1) | **Activity 1**Learners will collect various soil samples around the school to compare and draw differences, through feeling the soil samples by rubbing them between the thumb and fingers.(investigating and analyzing the soil)**Activity 2**Learners will be expected to investigate and analyze the possible causes of the water not taking the same time to come under the holed containers, whilst there are equal contents of the soil in tins as well as water.**Activity 3**The learners must be in the position to explain and evaluate water loss on different soils and explaining what soil texture is.Will write class-work | Test tubes, Visual aids, Writing books Textbooks,ChalkboardLearners bookSchool garden | Class work activity | 30 min 30 min |
| **Homework:** Learners complete activity given and start with assessment. | **Expanded opportunity**: Activities for more practice |
| **Special needs:** Identify learners with special needs and assist them.  | **Enrichment:** More challenging activity |

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 LESSON PLAN: GRADE 11

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| --- | --- |
| Teacher: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**Duration of lesson**: 2 periods/2hrs | School: Grade: 11 |
| **Critical Outcomes** | **1****x** | **2****x** | **3****x** | **4****X** | 5 | 6 | 7 | **LO** | **ASSESSMENT STANDARD** |
| **Developmental Outcomes** | **1****x** | 2 | **3****x** | 4 | 5 |  | **1** | **1** | **2** |  |  |  |  |  |  |
| **Integration with other subjects**: Geography and English | **2** | **1** |  |  |  |  |  |  |  |
|  |  |  |  |  |  |
| **Knowledge area**: Soil Science |  |  |  |  |  |  |
| **Sub-content/**Concepts: Soil Horizons | **Assessment strategies** |
| Prior Knowledge: General knowledge about soil | Teacher and peer, self assessment | Task, observation, class work,  |
| **Teachers activities** | **Learners’ activities** | **Resources** | **Assessment evidence** | **Estimated time** |
| **Activity 1**The educator shall take the learners to the field where they shall be asked basic question like what is the soil, identify what composes the soil. **Activity 2**The educator shall take the learners to the field where they will identify the soil horizons. The educator shall simultaneously be expected to explain assisting the learners with the definition of soil horizons and soil profile.**Activity 3**The Educator will be expected to comment on the conceptualization that the learners have been exposed to in the field around soil horizons. The educator shall give notes.  | **Activity 1**The learners shall be expected to define soil in the way in which they perceive(understand) it(analyzing it) the learners will also be expected to identify the components of the soil**Activities 2**The learners will be taken to the pit which is either dug by them or a well dug dumping pit to identify and analyze the sequence (categorize) of the soil horizons. In the process the learners shall be jotting down their observation**Activity 3**The learners shall be given a chance to write to the board what they have noted during the field work around the formation of the soil, the soil horizons, and the soil profile/soil forming processes | Books, pens, chalkboard, pamphlets, magazines, Textbooks, FlipchartsWorksheetLearners bookSchool garden | Presentation sheetClass-work activity | 40 min40 min40 min |
| **Homework:** Learners complete activity given and start with assessment | **Expanded opportunity:** Activities for more practice |
| **Special needs:** Identify learners with special needs and assist them. | **Enrichment:** More challenging activity |

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