

RATIONALIZED AGRICULTURE LESSON PLANS TERM 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

WEEK 1: LESSON 1

Strand: Conservation of Resources

Sub Strand: Controlling Soil Pollution

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Define the term soil pollution.
2. Identify the causes of soil pollution in the environment.
3. Discuss the causes of soil pollution in the environment.
4. Search the internet for clips on soil pollution.
5. Acknowledge the causes of soil pollution in the environment.

Key Inquiry Questions:

- What is soil pollution?
- What are the causes of soil pollution in the environment?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture (pages 1-3)
- Pictures related to soil pollution
- Digital devices (tablets, laptops)
- School farm or surrounding farm

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on environmental conservation.
- Briefly present the key inquiry questions to focus the learners.
- Guide learners to read and discuss relevant content from the learning resources, emphasizing understanding the key concepts of soil pollution.

Lesson Development (30 minutes):

Step 1: Defining Soil Pollution

- In pairs, learners define the term "soil pollution" using Spark Agriculture and the provided pictures.
- Each pair shares their definitions with the class to build a comprehensive understanding.

Step 2: Identifying Causes

- Groups are formed to discuss different farming practices and their impact on soil quality.
- Learners identify specific causes of soil pollution such as chemical runoff, waste disposal, and excessive use of pesticides.
- Groups share their findings, and the teacher creates a communal list on the board.

Step 3: Exploring Online Resources

- Learners use digital devices to search for short clips on soil pollution. They should focus on identifying visual causes and effects presented in the videos.
- After watching, they note down new information or examples not previously discussed.

Step 4: Group Discussion

- Regroup and facilitate a discussion where students acknowledge and present the causes of soil pollution they learned from both the clips and their discussions.
- Encourage them to connect their findings to real-life situations, such as the school or surrounding farm.

Conclusion (5 minutes):

- Summarize key points about soil pollution and its causes discussed during the lesson.
- Engage learners in a brief interactive activity, such as a quiz or a "think-pair-share" session to reinforce knowledge.
- Prepare learners for the next session by previewing upcoming topics, like solutions to soil pollution or the impact on plant and animal life.

Extended Activities:

- Conduct a field trip to the school farm to observe soil conditions and identify potential sources of pollution.
- Create a poster campaign to raise awareness about soil pollution, encouraging students to think about practical solutions.
- Initiate a class project where learners monitor soil samples over time to document how different practices affect soil quality.

Teacher Self-Evaluation:

WEEK 1: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Controlling of Soil Pollution

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Visit the school farm/local farm and identify the causes of soil pollution.
2. Record their observations in a table.
3. Enjoy the excursion.

Key Inquiry Question:

- How can household practices cause soil pollution?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture pg. 2
- Tablets

Organisation of Learning:

Introduction (5 minutes):

- Review the main topics covered in the previous lesson on soil conservation.
- Introduce the concept of soil pollution and its importance.
- Guide learners to read and discuss relevant content from Spark Agriculture, focusing on common causes of soil pollution.

Lesson Development (30 minutes):**Step 1: Preparation**

- Divide the class into small groups and assign roles (recorder, observer, presenter).
- Provide each group with a checklist of potential causes of soil pollution (e.g., garbage, chemicals, fertilizers) to aid observations during the farm visit.

Step 2: Farm Visit

- Take students to the school farm or a nearby farm.
- Allow time for each group to explore, observe, and identify specific examples of soil pollution, using their checklists as guides.

Step 3: Data Recording

- After the visit, return to the classroom.
- In their groups, students will compile their observations and complete a table that categorizes different causes of soil pollution they observed.

Step 4: Group Discussion

- Facilitate a class discussion where each group presents their findings.
- Encourage learners to discuss how the identified causes can affect soil health and local ecosystems.

Conclusion (5 minutes):

- Summarize key points from the discussion surrounding soil pollution and its causes.
- Conduct a quick interactive activity, such as a "Pollution Bingo," where students match causes to their corresponding effects.
- Prepare learners for the next session by giving them a guiding question to think about: "What are some solutions to prevent soil pollution?"

Extended Activities:

- Research Project: Assign students to research household practices that can lead to soil pollution and create a presentation on ways to mitigate these effects.
- Creative Poster: Encourage students to design an educational poster highlighting the causes of soil pollution and tips for reducing it in their community.
- Home Survey: Suggest that students conduct a survey at home to identify possible sources of soil pollution and brainstorm ways to reduce them.

Teacher Self-Evaluation:

WEEK 1: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Controlling of Soil Pollution

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Identify the ways of controlling soil pollution in the environment.
2. Discuss the ways of controlling soil pollution in the environment.
3. Prepare posters showing ways of controlling soil pollution in the environment.
4. Appreciate the importance of controlling soil pollution for environmental health.

Key Inquiry Question:

- How can you control soil pollution in the environment?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture textbook (pages 4-5)
- Posters
- Pictures
- Digital devices

Organisation of Learning:

Introduction (5 minutes):

- Begin with a quick review of the previous lesson, connecting concepts to soil pollution.
- Guide learners to read from the Spark Agriculture textbook, focusing on key concepts of soil pollution. Facilitate a brief discussion to ensure comprehension of material.

Lesson Development (30 minutes):

Step 1: Identifying Ways to Control Soil Pollution

- In pairs, ask students to brainstorm and list possible ways to control soil pollution based on their reading.
- Encourage them to think about both individual actions and community or agricultural practices.

Step 2: Discussing the Identified Ways

- Organize a class discussion where each pair shares their ideas.
- Facilitate the conversation to explore how these methods can be implemented effectively in real-life scenarios.

Step 3: Preparing Posters

- In small groups, learners will choose one method of controlling soil pollution and create a poster that visually represents that method.
- Encourage creativity and clear communication of the idea through illustrations and text.

Step 4: Displaying Posters

- Allow groups to present their posters to the class.
- Discuss what they learned from each presentation and how the methods displayed can be utilized.

Conclusion (5 minutes):

- Summarize key points discussed during the lesson, revisiting the learning objectives.
- Conduct an interactive activity, such as a quick quiz or a “thumbs up/thumbs down” response session based on the ideas shared in posters.
- Preview the next lesson's topic, encouraging students to think about how their contributions can further impact soil health.

Extended Activities:

- Soil Analysis Project: Have students collect samples from various locations (e.g., garden, park) and analyze them for signs of pollution. They can present their findings in a subsequent class.
- Community Engagement: Encourage students to participate in a local clean-up event or propose a community awareness campaign focused on reducing soil pollution.
- Digital Presentation: Ask students to create a digital presentation or video based on their posters, sharing information about soil pollution with a broader audience.

Teacher Self-Evaluation:

WEEK 1: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Controlling of Soil Pollution

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Identify a garden where soil has been polluted in the locality.
2. Practice safe soil pollution control measures in the garden.
3. Demonstrate responsibility in using safe farming practices to conserve soil.

Key Inquiry Question:

- How can you practice safe soil pollution measures in a polluted garden?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Garden/environment.
- Spark Agriculture textbook (pg 4-5).
- Tablets for recording activities.

Organisation of Learning:

Introduction (5 minutes):

1. Review the previous lesson on soil conservation and its importance.
2. Engage learners by asking questions about how pollution affects gardens and food production.
3. Guide learners to read and discuss relevant content from the textbook, focusing on pollution control methods.

Lesson Development (30 minutes):**Step 1: Identify Polluted Gardens**

- In groups, learners will discuss and identify a local garden they suspect has soil pollution.
- Encourage them to think about signs of pollution, such as dead plants, discoloration of soil, or litter nearby.

Step 2: Research Safe Soil Practices

- Students will use their tablets to research safe soil pollution control measures, including composting, crop rotation, and using natural fertilizers.
- Each group should summarize their findings and prepare to share with the class.

Step 3: Plan Pollution Control Activities

- Groups will create a simple action plan on how they can practice these safe measures in the identified garden.
- Encourage creativity and practicality in their plans.

Step 4: Record Implementation

- Learners will practice a chosen control measure, using their tablets to record a brief video of their activity—whether it's planting improved crops, enriching soil, or discussing their action plan.

- Remind them to highlight the importance of responsibility and community involvement in these practices.

Conclusion (5 minutes):

- Summarize key points about soil pollution and control methods discussed during the lesson.
- Conduct an interactive quiz or discussion where learners can share what they learned and ask questions.
- Provide a preview of the next session focusing on sustainable agriculture practices.

Extended Activities:

- Garden Observation Project: Have students choose a garden to observe weekly. They can take notes on any changes, and apply safe soil practices to monitor improvements.
- Create a Soil Health Campaign: Students can design posters or digital media campaigns to promote safe soil practices in their community.
- Virtual Field Trip: Arrange a virtual tour of an organic farm, focusing on how they manage soil and prevent pollution.

Teacher Self-Evaluation:

WEEK 2: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Controlling Soil Pollution

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Explain the meaning of awareness messages.
2. Create awareness messages on safe farming practices in the farms.
3. Appreciate each other's efforts in creating awareness messages on safe farming practices.

Key Inquiry Question(s):

- What methods can you use to create awareness messages on safe farming practices?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Manilla papers
- Empty cartons
- Pair of scissors
- Marker pens
- Glue

- Tablets/Laptops

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson by engaging students in a brief discussion about soil pollution and its impact on agriculture.
- Guide learners to read and discuss content related to awareness messages using available learning resources, highlighting why informing others is important.

Lesson Development (30 minutes):

Step 1: Understanding Awareness Messages

- Begin with a brief explanation of what awareness messages are and why they are essential for promoting safe farming practices.
- Provide examples of awareness messages related to soil conservation and farming.

Step 2: Group Discussion

- Divide students into small groups.
- Have them discuss different safe farming practices and brainstorm ideas on what messages can be created to educate the community about these practices.

Step 3: Creating Awareness Messages

- Each group will use manila papers and markers to create their awareness messages. Encourage creativity in their designs—posters, slogans, or drawings illustrating safe practices.

Step 4: Sharing and Appreciating Efforts

- Groups will present their awareness messages to the class.

- After each presentation, facilitate a short discussion where classmates provide positive feedback and recognize each group's hard work.

Conclusion (5 minutes):

- Summarize key points discussed, reiterating the importance of safe farming practices and the role of awareness messages in conserving soil resources.
- Conduct a brief interactive activity such as a quiz or discussion question about safe farming practices to reinforce the main topics.
- Prepare learners for the next session by highlighting the next topic on soil health and conservation measures.

Extended Activities:

- Have students create digital awareness campaigns using tablets or laptops, focusing on different target groups (e.g., farmers, schoolchildren) with tailored messages.
- Organize a visit to a local farm or community garden to observe safe farming practices in action, and students can take notes to generate further discussion in class.
- Assign students to write a short essay on the importance of preventing soil pollution and what they can do in their daily lives to contribute to soil health.

Teacher Self-Evaluation:

WEEK 2: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Controlling Soil Pollution

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to attempt the questions in Assessment Exercise 1.

Key Inquiry Questions:

- What are the main causes of soil pollution?
- How can we control or reduce soil pollution in our environment?
- Why is it important to maintain healthy soil?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Assessment books. Spark Agriculture, pg 7.

Organisation of Learning:

Introduction (5 minutes):

- Begin with a quick review of the previous lesson's content on soil health.

- Encourage students to share what they remember about soil pollution and its effects.
- Guide learners to read and discuss the relevant content from Spark Agriculture, ensuring they grasp key concepts related to soil pollution.

Lesson Development (30 minutes):

Step 1: Identify Causes of Soil Pollution

- Individually, learners will brainstorm and list common sources of soil pollution (e.g., chemicals, waste, pesticides).
- Share responses in pairs to see different perspectives and understanding.

Step 2: Discuss Effects of Soil Pollution

- In pairs, learners will discuss how soil pollution affects plant growth, animal health, and human life.
- Ask pairs to share one or two effects with the class.

Step 3: Explore Control Methods

- Introduce different methods of controlling soil pollution (e.g., using organic fertilizers, reduced use of pesticides, waste management practices).
- Invite pairs to present one method they think is practical in their community.

Step 4: Answer Assessment Exercise 1

- Have learners work independently to answer the questions in Assessment Exercise 1, applying what they've learned in the lesson.
- Monitor and assist students as needed, ensuring they understand the assessment task.

Conclusion (5 minutes):

- Review key points discussed in the lesson: causes, effects, and control methods of soil pollution.
- Conduct an interactive activity, such as a “Think-Pair-Share” about what they can do at home or school to reduce soil pollution.
- Give students a brief preview of the next session, which will focus on water conservation and its connection to soil health.

Extended Activities:

- Research Project: Assign students to research a local initiative aimed at reducing soil pollution. They can present their findings in a class discussion.
- Creative Poster: Have learners create a poster illustrating ways to control soil pollution. This could be displayed in the classroom to promote awareness.
- Field Trip: Organize a visit to a local farm or environmental organization focused on sustainable practices to see firsthand the importance of soil conservation.

Teacher Self-Evaluation:

WEEK 2: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Constructing Water Retention Structures

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Define the terms "water conservation" and "surface runoff."
2. State the importance of water conservation in the environment.
3. Discuss the implications of surface runoff.
4. Acknowledge the need for conserving water in the environment.

Key Inquiry Question:

- What is the importance of water conservation in the environment?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture (pg 9)
- Tablets
- Internet
- Teacher's Notes

Organization of Learning:

Introduction (5 minutes):

- Begin the lesson with a quick review of the previous lesson, which may cover fundamental agricultural practices or conservation techniques.
- Ask students to reflect on what they learned to prepare for today's topic.
- Guide learners to read and discuss relevant content from "Spark Agriculture" (pg 9) while highlighting key terms such as "water conservation" and "surface runoff."

Lesson Development (30 minutes):

Step 1: Define Key Concepts

- Divide the class into small groups.
- Each group will use tablets or the internet to find definitions for "water conservation" and "surface runoff".
- Ask each group to present their definitions to the class, facilitating a brief class discussion for clarity and understanding.

Step 2: Brainstorming Importance

- In their groups, students will brainstorm a list of reasons why water conservation is important in the environment.
- Prompt them to think about ecological, economic, and social aspects.
- Groups will share their lists, and the teacher will compile these ideas on the board to visualize the importance of water conservation.

Step 3: Discuss Implications of Surface Runoff

- Still in their groups, learners will discuss what happens when surface runoff is excessive.
- Guide students to consider how it affects ecosystems, agriculture, and urban settings.

- Groups will summarize their points and present them to the class.

Step 4: Group Reflection

- Ask students to reflect on the discussed importance of conservation and surface runoff.
- Pose open-ended questions: "How can we implement water conservation in our daily lives?"
- Allow a few volunteers to share their reflections with the class.

Conclusion (5 minutes):

- Summarize key points discussed about water conservation and surface runoff.
- Reinforce the specific learning outcomes and encourage students to think about practical conservation efforts they can adopt.
- Conduct a quick interactive activity (e.g., a true/false quiz on water conservation facts) to engage students and assess understanding.
- Preview the next session's focus, such as "Constructing Water Retention Structures," and suggest questions to consider at home.

Extended Activities:

- Water Audit: Have students conduct a "water audit" at home to track water usage in their daily activities and suggest improvements to conserve water.
- Create a Water Conservation Campaign: In groups, students can create posters or digital presentations to raise awareness about water conservation, which they could display around the school.
- Visit a Local Water Conservation Project: If feasible, arrange a field trip to a local conservation project or water treatment facility to see these principles in action and discuss further with experts.

Teacher Self-Evaluation:

WEEK 2: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Construction of Water Retention Structures

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Identify the structures used in conservation of surface runoff.
2. Describe the various ways to conserve surface runoff.
3. Draw the structures used in conservation of runoff on charts.
4. Appreciate the importance of conserving surface runoff.

Key Inquiry Question:

How can surface run-off be conserved for gardening purposes?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture pg 10
- Manila paper
- Drawing papers
- Pencils

Organisation of Learning:

Introduction (5 minutes):

- Begin the lesson by reviewing key concepts from the previous lesson, focusing on the importance of water in agriculture.
- Guide students to read and discuss the relevant content from Spark Agriculture, particularly the section on surface runoff and its conservation.

Lesson Development (30 minutes):

Step 1: Identification

- In pairs, learners will look at pictures of various water retention structures (like terraces, dams, and swales) and identify these structures.
- Ask each pair to share their findings with the class and write down the names of the structures on the board.

Step 2: Description

- As a class, discuss the different ways to conserve surface runoff. Encourage students to brainstorm methods such as creating rain gardens, using mulching, or implementing catchment systems.
- Record their contributions on the board, prompting discussions about the benefits of each method.

Step 3: Drawing

- Provide learners with drawing papers and pencils. Ask them to choose one method discussed and draw a simple diagram of the structure used for conserving surface runoff.
- Encourage creativity, and remind students to think about the functionality of their designs.

Step 4: Display and Appreciation

- Allow students to display their drawings on the classroom walls.
- Facilitate a brief gallery walk where students appreciate each other's work and provide constructive comments.

Conclusion (5 minutes):

- Summarize the key points and learning objectives that were achieved during the lesson.
- Conduct an interactive activity where students can quiz each other on the structures and methods discussed.
- Prepare learners for the next session by previewing upcoming topics about soil conservation and its relation to water retention.

Extended Activities:

- Have learners research local case studies or examples of water retention strategies in their community or country and present their findings in the next lesson.
- Organize a field visit to observe a water retention structure in action or invite a local expert to talk about water conservation practices in agriculture.

Teacher Self-Evaluation:

WEEK 3: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Construction of Water Retention Structures

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Identify a site in the school environment that experiences runoff after heavy rainfall.
2. Discuss the most appropriate water retention structure for the area.
3. Design the structure to be constructed.
4. Discuss how to utilize surface runoff in gardening.

Key Inquiry Questions:

1. How does the construction of water retention structures conserve water?
2. Which crops are suitable for establishment in water retention structures?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture pg 11
- Garden/Surrounding Environment

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson focusing on the importance of water conservation.
- Guide learners to read and discuss relevant content from page 11 of Spark Agriculture. Focus on the basic concepts of water retention and why it matters.

Lesson Development (30 minutes):

Step 1: Site Identification

- In groups, learners will walk around the school grounds to identify areas where runoff occurs after heavy rainfall.
- Each group should take notes on where they see water pooling or flowing away from the land.

Step 2: Discussion on Water Retention Structures

- Back in the classroom, each group shares their observations.
- Discuss as a class the various types of water retention structures (for example, swales, ponds, or rain gardens) and their suitability for the identified areas.
- Encourage students to think critically about which structure would work best for different locations based on size and surrounding environment.

Step 3: Designing the Structure

- Groups will then sketch a simple design of the appropriate water retention structure for their chosen site.
- They should consider factors like size, shape, and materials needed for construction.

Step 4: Utilizing Surface Runoff for Gardening

- Discuss how surface runoff can be harnessed in gardening, such as through irrigation systems or rain gardens.

- Each group brainstorms a few crops that would thrive with the use of their designed water retention structure.

Conclusion (5 minutes):

- Summarize the key points discussed: the importance of water retention, the structures suitable for the site identified, and how these structures can be utilized in gardening.
- Conduct a brief interactive activity such as a quick quiz or question round to reinforce learning (e.g., "Name one benefit of water retention structures").
- Prepare learners for the next lesson, hinting at topics related to plant growth and soil conservation.

Extended Activities:

- Research Project: Have students research specific crops that are best suited for water retention areas and present their findings in the next lesson.
- Field Trip: Organize a field trip to a local farm or a garden where water retention techniques are used effectively.
- Create a Poster: Ask students to create a poster showcasing their understanding of the water retention structure they designed, including its benefits and the types of crops it can support.

Teacher Self-Evaluation:

WEEK 3: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Construction of Water Retention Structures

Specific Learning Outcomes:

By the end of the lesson, learners should be able to:

1. Outline the procedure of constructing the most suitable water retention structure for the identified area.
2. Construct the chosen structure in the identified area.
3. Appreciate each other's effort in the construction of the water retention structure.

Key Inquiry Question:

- How do you construct the selected water retention structure?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Gardening tools (Jembe, Shovel, Slasher or Panga)
- Mulching materials
- Meter rules
- Planting materials

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson focused on water conservation practices and their importance.
- Guide learners to read and discuss relevant content from provided resources, emphasizing understanding water retention structures and their benefits.

Lesson Development (30 minutes):

Step 1: Identify the Structure

- Discuss different types of water retention structures (e.g., contour bunds, check dams, rain gardens).
- In small groups, learners identify the most suitable structure for their identified area based on soil and water observation.

Step 2: Outline the Procedure

- Writing down the specific steps for constructing the chosen water retention structure.
- Each group presents their outlined procedures, allowing for questions and peer feedback.

Step 3: Hands-on Construction

- Using the gardening tools and materials, learners take turns constructing the chosen water retention structure.
- Encourage collaboration within groups, assigning different roles (e.g., digger, planner, material gatherer) to all learners.

Step 4: Reflect on Efforts

- After construction, each group discusses what they learned from the experience and how they worked together.

- Groups can share their experiences, challenges faced during construction, and solutions devised.

Conclusion (5 minutes):

- Summarize key points: the importance of water retention structures and steps to construct them.
- Conduct a brief interactive activity, such as a "thumbs up/thumbs down" game where students share one fact they learned and agree/disagree with their peers.

Extended Activities:

1. Research Project: Assign each student to research one method of water retention used globally and present it in a future class.
2. Water Audit: Have students conduct a water audit at home or school, identifying areas where water retention can be improved.
3. Create a Model: Encourage students to create a small-scale model of a water retention structure using recyclable materials.

Teacher Self-Evaluation:

WEEK 3: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Conserving Food Nutrients

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Identify ways of conserving vitamins and mineral salts in vegetables.
2. Discuss different strategies for conserving vitamins and mineral salts.
3. Search the internet for clips and information on conserving vitamins and mineral salts in vegetables.
4. Acknowledge methods for conserving these nutrients.

Key Inquiry Question:

- How do we conserve vitamins and mineral salts in vegetables?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Video clips
- Pictures
- Digital devices
- MTP Home Science (pg 5-6)

- Posters
- Manilla papers
- Marker pens

Organization of Learning:

Introduction (5 minutes):

1. Start with a brief review of the previous lesson on plant nutrients.
2. Share objectives for today's lesson, highlighting the importance of conserving vitamins and minerals in vegetables for health and nutrition.
3. Guide learners to skim through their materials, focusing on relevant sections.

Lesson Development (30 minutes):

Step 1: Group Formation and Topic Introduction

- Divide learners into small groups.
- Assign each group a particular aspect of conserving vitamins and minerals (e.g., cooking methods, storage methods, etc.).
- Provide time for groups to brainstorm ideas based on prior knowledge.

Step 2: Research and Video Exploration

- Instruct groups to utilize digital devices to search for video clips and pictures showing various methods of conserving vitamins and mineral salts in vegetables.
- Each group takes notes on key methods they observe in the clips and prepares questions for class discussion.

Step 3: Group Discussion and Sharing

- Groups discuss their findings and prepare to share with the class.

- Encourage groups to talk about their favorite methods and explain why they are effective.

Step 4: Poster Creation

- Each group creates a poster that visually represents at least 3 methods of conserving vitamins and minerals in vegetables.
- Provide markers and manila papers for posters. Once completed, prepare to display them in the classroom.

Conclusion (5 minutes):

1. Summarize the key points learned about conserving vitamins and minerals in vegetables.
2. Conduct a quick interactive quiz or "think-pair-share" about the methods discussed.
3. Preview next session's topic, which could be about the health benefits of consuming nutrient-rich vegetables.

Extended Activities:

- Assign students to track their vegetable consumption at home for a week and report back on which methods of preservation were applied.
- Encourage learners to experiment with cooking or storing vegetables using the methods learned and document the outcomes in a journal.

Teacher Self-Evaluation:

WEEK 3: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Conserving Food Nutrients

Specific Learning Outcomes:

- By the end of the lesson, the learner should be able to:

1. Describe how washing should be done to conserve mineral salts and vitamins in vegetables.
2. Demonstrate proper washing of vegetables to preserve mineral salts and vitamins.
3. Acknowledge the importance of conserving vitamins and mineral salts in vegetables.

Key Inquiry Questions:

- How do you wash vegetables in order to conserve mineral salts and vitamins?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Cabbages
- MTP Home Science pg. 5
- Digital devices (tablets, smartphones)
- Teacher's Notes
- School kitchen

Organisation of Learning:

Introduction (5 minutes):

- Review Previous Lesson: Briefly recap what was covered in the last lesson about the importance of nutrients in food.
- Discussion: Have learners read a selected passage from the provided resources. Prompt them to discuss how washing affects the nutritional value of vegetables, guiding them to the key concepts of mineral salts and vitamins.

Lesson Development (30 minutes):

Step 1: Understanding Nutrition

- Discussion: Introduce the concepts of mineral salts and vitamins. Discuss the role they play in health and why it is important to preserve them.
- Interaction: Ask students to share any experiences they have had with nutrient loss in vegetables (e.g., taste, smell).

Step 2: Outlining Washing Methods

- Group Work: In small groups, learners will brainstorm how to wash vegetables properly. Provide each group with a chart paper to write down their methods.
- Guidance: Ensure they include techniques that minimize nutrient loss, such as cold water washing and avoiding long-soaking.

Step 3: Demonstration of Washing Techniques

- Demonstration: Groups will take turns demonstrating their washing methods using cabbages. Encourage them to explain their steps clearly to the class.
- Recording: Use digital devices to record the demonstrations for classroom review.

Step 4: Sharing and Reflecting

- Class Sharing: Each group will share their demonstration and the key points of their washing methods.

- Reflection: Lead a discussion on what they learned during the demonstrations and how different methods can be used effectively to preserve nutrients.

Conclusion (5 minutes):

- Summarize Key Points: Recap the importance of conserving nutrients in washed vegetables.

- Interactive Activity: Conduct a quick quiz or interactive game based on the lesson content, reinforcing the methods discussed.

- Preview Next Session: Briefly outline what will be covered in the next class, such as exploring other conservation methods in agriculture.

Extended Activities:

1. Research Project: Have students research different vegetables and their nutrient content, creating a poster or presentation to share with the class.

2. Cooking Activity: Plan a cooking session where students can prepare a simple dish using washed vegetables, applying the techniques learned.

3. Nutritional Diary: Encourage students to keep a nutrient diary for a week, tracking their vegetable intake and any washing methods they used.

Teacher Self-Evaluation:

WEEK 4: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Conserving Food Nutrients

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Describe how cutting and peeling should be done to conserve mineral salts and vitamins.
2. Demonstrate how to cut and peel vegetables as ways of conserving vitamins and mineral salts.
3. Enjoy demonstrating peeling and cutting of vegetables as effective ways to conserve nutrients.

Key Inquiry Question:

- How should peeling and cutting be done in order to conserve mineral salts and vitamins in vegetables?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Fresh fruits and vegetables (e.g., carrots, potatoes, apples)
- School kitchen
- MTP Home Science textbook (pg. 5-6)
- Video clips on vegetable cutting and peeling techniques
- Knives

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on the importance of nutrients in vegetables and their role in a balanced diet.
- Guide learners to read and discuss relevant content from the learning resources, specifically focusing on how cooking and preparation methods affect nutrient conservation.

Lesson Development (30 minutes):

Step 1: Discussion

- In small groups, learners discuss the key concepts of how certain methods of preparing vegetables can help keep them nutritious. They will share thoughts on why it is important to preserve vitamins and mineral salts.

Step 2: Teacher Demonstration

- The teacher will demonstrate correct peeling and cutting techniques for selected vegetables (e.g., peeling carrots, slicing potatoes). Focus on showing the least damaging methods that conserve nutrients (e.g., using a peeler vs. a knife, cutting rather than chopping).

Step 3: Group Practice

- Students will practice peeling and cutting the vegetables under teacher supervision, using the demonstrated methods. Each student is encouraged to take turns practicing different techniques.

Step 4: Record and Reflect

- Learners will record their experiences and observations about the techniques used in a simple journal entry. Prompts can include: "What did you notice about the differences between methods?" and "How do you think this helps keep our food healthy?"

Conclusion (5 minutes):

- Summarize key points made during the lesson, reiterating the importance of conserving nutrients through proper vegetable preparation.
- Conduct a brief interactive activity, such as a quick quiz or a "Myth vs. Fact" game about nutrient conservation.
- Preview the next session's topic, which will focus on meal planning and the role of nutrients in cooking.

Extended Activities:

- Nutrient Scavenger Hunt: Have students identify and list various vegetables and fruits in their homes that are rich in vitamins and minerals. They can create a poster to present their findings.
- Cooking Challenge: Set up a fun cooking competition where students must prepare a dish using previously discussed techniques that retain nutrients. They can discuss and vote on the healthiest dish.
- Nutrient Journal: Ask students to keep a daily food journal for one week, noting the fruits and vegetables they eat and how they are prepared, and reflecting on how preparation methods affect nutrient retention.

Teacher Self-Evaluation:

WEEK 4: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Conserving Food Nutrients

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Describe how cooking time and covering should be done in order to conserve mineral salts and vitamins in vegetables.
2. Demonstrate how to conserve mineral salts and vitamins in vegetables using covering and cooking time.
3. Adopt practices that conserve vitamins and mineral salts in vegetables.

Key Inquiry Question:

- How should covering and cooking time be done in order to conserve mineral salts and vitamins in vegetables?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Fresh vegetables (cabbages), digital devices, school kitchen.

Organisation of Learning:

Introduction (5 minutes):

- Review previous lessons on the importance of nutrients in food.
- Engage students in a discussion about what they learned and introduce the importance of conserving these nutrients during cooking.

Lesson Development (30 minutes):**Step 1: Discussing Concepts**

- In groups, learners discuss the importance of conserving minerals and vitamins in vegetables.
- Each group will explore factors that affect nutrient conservation, particularly cooking time and the use of covers.

Step 2: Teacher Demonstration

- The teacher will demonstrate effective methods for cooking vegetables while conserving nutrients.
- Key focus will be on minimal cooking time and the use of a lid to cover the pot.

Step 3: Group Practice

- Students return to their groups to practice the techniques demonstrated.
- They will take turns cooking a small portion of cabbage using the methods learned.

Step 4: Group Reflection and Discussion

- Each group shares their experiences and reflections on the process of conserving nutrients through cooking.
- Discuss any challenges they faced and how they overcame them.

Conclusion (5 minutes):

- Summarize the key points covered in the lesson: the importance of covering and proper cooking times.
- Conduct an interactive quiz or game to reinforce main topics (e.g., "Name three ways to conserve nutrients!").
- Preview the next lesson on exploring other food conservation techniques.

Extended Activities:

1. Vegetable Nutrient Journal: Students keep a journal for one week documenting the types of vegetables they cook, how they prepare them, and any observations on nutrient retention.
2. Cooking Class Challenge: Organize a cooking challenge where students must prepare a dish using the nutrient conservation methods learned in class. They can present their creations and discuss the methods they used.
3. Research Project: Have students research a specific vitamin or mineral found in vegetables and present how cooking methods can impact its retention.

Teacher Self-Evaluation:

WEEK 4: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Growing Trees

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. State the importance of trees in conserving the environment.
2. Discuss the importance of trees in conserving the environment.
3. Prepare posters showing the importance of trees in conserving the environment.
4. Acknowledge the importance of trees in the conservation of the environment.

Key Inquiry Question(s):

- How can growing trees conserve the environment?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture pg 16-17
- Digital devices (tablets/computers) for research
- Posters
- Manilla papers

- Marker pens

Organisation of Learning:

Introduction (5 minutes):

- Begin the lesson by reviewing the previous topic on resource conservation.
- Ask students to share any new things they learned since the last lesson.
- Introduce the topic of trees and their environmental significance by reading passages from the Spark Agriculture text (pg 16-17).

Lesson Development (30 minutes):

Step 1: Brainstorming Activity

- Divide the class into small groups.
- Ask each group to brainstorm and list at least five benefits of trees for the environment.
- Encourage them to think about different aspects, such as air quality, wildlife habitat, and climate regulation.

Step 2: Discussion

- Regroup as a class and have each group share one benefit they listed.
- Facilitate a discussion that allows learners to elaborate on the points shared and connect their ideas.
- Use guiding questions to drive deeper understanding: "Why do we need trees?", "How do trees affect our daily lives?"

Step 3: Research Activity

- Provide learners with digital devices and guide them to search for more specific information online about tree conservation and environmental benefits.
- Encourage them to look for interesting statistics or facts they can include in their posters.

Step 4: Poster Preparation

- Using manilla papers and marker pens, ask each group to create a poster that highlights the importance of trees in conserving the environment.
- Encourage creativity; they can include drawings, quotes, and the facts they found during research.

Conclusion (5 minutes):

- Summarize the key points discussed during the lesson, highlighting the importance of trees in environmental conservation.
- Conduct a quick interactive activity, such as a "tree trivia" game to reinforce the main topics.
- Preview the next lesson on reforestation and its benefits, encouraging students to think about how they can contribute to this effort.

Extended Activities:

- Tree Planting Project: Organize a field trip where students can participate in planting trees in a local park or schoolyard.
- Reflection Journal: Have students maintain a journal for a week, noting their observations of trees in their environment and how they believe these trees are impacting the ecosystem.
- Guest Speaker: Invite an environmentalist to discuss tree conservation efforts and engage students with real-world applications of what they learned.

Teacher Self-Evaluation:

WEEK 4: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Growing Trees

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Differentiate between afforestation, re-afforestation, and deforestation.
2. State the roles of trees in soil and water conservation in the environment.
3. Discuss the roles of trees in soil and water conservation in the environment.
4. Prepare posters showing the roles of trees in soil and water conservation.
5. Appreciate the role of trees in soil and water conservation.

Key Inquiry Question:

- What are the roles of trees in the conservation of soil and water in the environment?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture, pg 18
- Teacher's Notes
- Internet

- Dictionary
- Digital device

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on the importance of natural resources.
- Guide learners to read and discuss relevant content from the provided learning resources, emphasizing understanding key concepts related to trees and conservation.

Lesson Development (30 minutes):

Step 1: Definitions

- In groups, learners will use dictionaries or digital resources to look up the meanings of:
- Afforestation
- Re-afforestation
- Deforestation
- Each group will share their definitions with the class to ensure understanding.

Step 2: Roles of Trees

- Groups will discuss the roles of trees in soil and water conservation, focusing on aspects like:
- Reducing soil erosion
- Enhancing water retention in the soil
- Providing shade which reduces evaporation
- Use guided questions to facilitate discussion, such as "How do trees prevent soil erosion?"

Step 3: Poster Preparation

- Learners will create posters that illustrate the roles of trees in soil and water conservation.
- Encourage creativity — they can include drawings, bullet points, or infographics summarizing what they've learned.

Conclusion (5 minutes):

- Summarize key points and reinforce the learning objectives achieved during the lesson.
- Conduct a brief interactive activity, such as a mnemonic game, to reinforce the roles of trees in conservation.
- Prepare students for the next session by previewing upcoming topics on climate change and its impact on trees.

Extended Activities:

- Write a short essay on how the loss of trees impacts the environment.
- Conduct a research project on local tree species and their specific roles in soil and water conservation.
- Organize a local tree-planting event and reflect on its impact as a class project.

Teacher Self-Evaluation:

WEEK 5: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Growing Trees

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. State management practices done in a tree nursery.
2. Discuss the management practices done in a tree nursery.
3. Prepare posters showing the management practices done in a tree nursery.
4. Develop a desire to take care of trees in a nursery.

Key Inquiry Question:

- What are the management practices done in a tree nursery?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Teacher's Notes
- Spark Agriculture pg 21
- Posters
- Manila papers and Marker pens

Organisation of Learning:

Introduction (5 minutes):

- Review the Previous Lesson: Begin by asking questions about what was learned last time regarding trees and their importance.
- Discuss Key Concepts: Guide learners to read specific sections from Spark Agriculture pg 21 that relate to tree nurseries, encouraging them to share their thoughts and understanding.

Lesson Development (30 minutes):

Step 1: Identifying Management Practices

- Activity: In small groups, brainstorm what they think are common management practices in a tree nursery.
- Guidance: Provide each group with an example (e.g., watering, pruning, pest management) to kickstart their discussion.

Step 2: Discussing Management Practices

- Activity: Groups take turns sharing their ideas. As they share, encourage them to discuss why each practice is important.
- Facilitation: The teacher should guide the discussion to ensure all groups are involved and clarify any misconceptions.

Step 3: Preparing Posters

- Activity: Each group creates a poster summarizing the management practices they've discussed. Encourage creativity—include illustrations and diagrams.
- Materials: Provide Manila papers and markers for each group.

Step 4: Presenting Posters

- Activity: Each group presents their poster to the class. Encourage peers to ask questions or add additional information that might not have been mentioned.
- Reflection: Foster a discussion on how these practices contribute to the health of the trees.

Conclusion (5 minutes):

- Summarize Key Points: Quickly recap the management practices discussed and their importance.
- Interactive Activity: Have a quick quiz game or a "tree nursery management" flashcard activity to reinforce the topics covered.
- Preview Next Session: Inform learners about the next topic, which will delve deeper into the role trees play in the environment.

Extended Activities:

- Field Trip: Organize a visit to a local tree nursery to observe the management practices firsthand.
- Tree Adoption Project: Encourage students to adopt a tree and document its growth and care over a specified period, reporting back on their experiences.
- Research Assignment: Assign students to research a particular tree species, focusing on its preferred nursery management practices and its role in the ecosystem.

Teacher Self-Evaluation:

WEEK 5: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Growing Trees

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Obtain the planting materials for their chosen trees.
2. Establish the planting materials collected.
3. Adopt tree planting as a way of conserving the environment.

Key Inquiry Question(s):

- How do you establish an agroforestry tree?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture PG 20-21
- Environment
- Jembes
- Jerrycans
- Buckets or empty sacks

- Pangas

Organisation of Learning:

Introduction (5 minutes):

- Begin with a quick review of the last lesson on the importance of trees in the environment.
- Ask students questions about what they learned.
- Direct them to read a few paragraphs from Spark Agriculture pages 20-21, discussing how trees contribute to conservation and the basics of planting.

Lesson Development (30 minutes):

Step 1: Choosing the Right Tree

- Guide students to pick the type of tree they want to grow based on their locality and purpose (e.g., fruit trees, shade trees).
- Discuss the factors to consider when selecting trees (climate, soil type, purpose).

Step 2: Collecting Planting Materials

- In groups, learners will gather seeds, seedlings, or vegetative materials from the schoolyard or nearby areas.
- Ensure that students understand the importance of choosing healthy and viable materials for planting.

Step 3: Preparing the Planting Site

- Teach students how to prepare a suitable planting site (clearing the area, loosening soil) using pangas and understanding the spacing required for their selected trees.
- Provide guidance on how to create holes for planting.

Step 4: Planting and Caring for the Trees

- Demonstrate how to plant the materials collected correctly.
- Discuss the importance of watering, mulching, and protecting the young trees from pests and other environmental factors.

Conclusion (5 minutes):

- Summarize the key points discussed: choosing the right tree, collecting planting materials, preparing the site, and planting them.
- Engage students in a brief interactive quiz where they can answer questions about the steps learned.
- Preview for the next lesson: “The role of trees in our community and how they improve our air quality.” Ask students to think about the different places where they see trees and how those trees benefit their surroundings.

Extended Activities:

- Tree Journal: Have students keep a journal of their tree's growth, documenting changes over time and any observations they make.
- Community Project: Encourage groups to plan an event where they can plant trees in a local community area or park. They can research suitable species and present their findings.
- Research Assignment: Assign students to research a specific tree species, focusing on its benefits and the best practices for growing it.

Teacher Self-Evaluation:

WEEK 5: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Growing Trees

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Outline the ways of managing established trees.
2. Discuss the ways of managing established trees.
3. Apply management techniques in taking care of established trees.

Key Inquiry Question(s):

- How do you take care of the established trees?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Spark Agriculture pg 21
- Teacher's Notes
- Jerrycans
- Dry grass, sawdust

Organisation of Learning:

Introduction (5 minutes):

- Begin by briefly reviewing the previous lesson on tree planting and its importance to the environment.
- Guide learners to read a short passage from Spark Agriculture pg 21 about established trees, highlighting key concepts related to tree care.

Lesson Development (30 minutes):

Step 1: Group Brainstorming

- Divide the class into small groups.
- Ask each group to brainstorm a list of ways to manage established trees, noting their ideas on paper. Encourage them to think about watering, mulching, pruning, and protection from pests.

Step 2: Group Discussion

- Have each group choose one or two of their brainstormed ideas to discuss in detail.
- Encourage groups to consider the benefits of each management technique and how they affect tree health. After discussion, each group will choose a spokesperson to share their findings with the class.

Step 3: Practical Application

- Using the materials provided (dry grass, sawdust), guide students to demonstrate the application of one tree management technique such as mulching to regulate soil moisture. Discuss how this impacts tree care.

Step 4: Reflection and Sharing

- Invite groups to share what they learned about their chosen management techniques.
- Facilitate a whole-class discussion on how these techniques can be applied in their own communities or homes.

Conclusion (5 minutes):

- Summarize the key points learned about managing established trees, reinforcing the management techniques discussed.
- Conduct a brief interactive quiz or think-pair-share activity about which management techniques are best for specific tree types.
- Prepare learners for the next session by previewing topics such as the role of trees in local ecosystems or tree diseases to consider.

Extended Activities:

- Tree Diary Project: Have students select a tree in their neighborhood and keep a diary of their observations over a month. They can note changes in growth, seasonal changes, and any management techniques they apply.
- Community Tree Care Day: Organize a school event where students can participate in tree planting or care in a local park, applying what they've learned in a real-world context.

Teacher Self-Evaluation:

WEEK 5: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Conservation of Resources

Sub Strand: Assessment on Conserving Food Nutrients and Growing Trees

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to attempt the assessment questions on the sub-strands: Growing Trees and Conserving Food Nutrients.

Key Inquiry Question(s):

- How can we effectively conserve food nutrients when growing plants?
- Why is growing trees important for both the environment and food production?

Core competencies	Values	PCIs
• Citizenship • Learning to learn • Critical thinking and Problem Solving	• Patriotism • Unity • Integrity	• Environmental conservation and protection • Health Promotion

Learning Resources:

- Assessment books
- Assessment questions from Spark Agriculture, pg 21

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson's key points about the importance of resource conservation in agriculture.
- Ask learners to share one new thing they remember from the last lesson.
- Introduce the key concepts related to conserving food nutrients and the significance of growing trees.

Lesson Development (30 minutes):

Step 1: Group Discussion

- Divide learners into small groups.
- Each group discusses the benefits of conserving food nutrients and the role of trees in the ecosystem.
- Ask each group to come up with a list of ways they could conserve food nutrients when growing their own food.

Step 2: Individual Reflection

- Have learners individually reflect on the group discussion and write down one personal strategy they could use at home to conserve food nutrients.

Step 3: Assessment Preparation

- Hand out assessment questions related to Growing Trees and Conserving Food Nutrients.
- Review the assessment format and discuss how to approach answering the questions thoughtfully.

Step 4: Guided Practice

- Allow learners to work in pairs to answer a few selected assessment questions together, encouraging discussion and collaboration to reinforce understanding.

Conclusion (5 minutes):

- Summarize the key points discussed during the lesson, highlighting effective conservation methods for food nutrients and the importance of trees.
- Conduct a quick interactive quiz where learners can answer true or false questions about what they learned as a fun way to reinforce the content.
- Provide a brief preview of what the next lesson will cover, including the importance of biodiversity in agriculture.

Extended Activities:

- Have students start a small tree planting project, either at home or in the schoolyard, documenting their observations on how trees impact the environment where they grow.
- Create a nutrition poster project where students illustrate different food items and note strategies for preserving their nutrients.

Teacher Self-Evaluation:

WEEK 6: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Planting Sites and Establishing Crops

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Define the term "soil tilth."
2. Identify the types of soil tilth used for selected planting materials.
3. Discuss the types of soil tilth and provide examples of appropriate crops for each tilth.
4. Search the internet for more information on the types of soil tilth.
5. Acknowledge the different types of soil tilth for planting materials.

Key Inquiry Question(s):

- What is soil tilth?
- What are types of soil tilth used in farming?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture (pg 24-26)
- Pictures of various soil types and crops

- Digital devices for research
- School garden for practical demonstration

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on the importance of soil in agriculture.
- Introduce the concept of soil tilth, guiding students to read relevant sections from learning resources, highlighting the connection between soil health and crop growth.

Lesson Development (30 minutes):

Step 1: Define Soil Tilth

- In groups, students search the internet or relevant books to define "soil tilth."
- Each group shares their findings with the class, fostering discussion.
- Teacher clarifies and solidifies the definition of soil tilth, explaining its significance in agriculture.

Step 2: Types of Soil Tilth

- Groups continue their research to identify different types of soil tilth (e.g., fine, medium, coarse).
- Have students compile lists of each tilth type and share them with the class.
- Teacher provides additional information and examples of each type.

Step 3: Crops and Soil Tilth

- Each group discusses what types of crops thrive in different soil tilths (e.g., carrots in loose soil vs. potatoes in heavier soils).
- Teacher encourages sharing examples and contextualizes the idea of matching crops to soil types.

Step 4: Practical Demonstration in School Garden

- Take students to the school garden to observe firsthand the soil conditions.
- Demonstrate how to assess soil tilth with hands-on activities, such as feeling the soil texture and moisture content.

Conclusion (5 minutes):

- Summarize the key points discussed, reinforcing the definition and types of soil tilth as well as their importance in crop growth.
- Conduct a brief interactive quiz (e.g., Kahoot!) to engage students and reinforce the main topics covered.
- Preview the next session's focus on soil nutrients and their role in plant health.

Extended Activities:

- Research Project: Assign students to choose a specific crop and conduct a research project on the ideal soil tilth for that crop, including its growth requirements and optimal planting conditions.
- Soil Field Trip: Organize a field trip to a local farm or agricultural center to observe different soil types and cropping methods in real life.
- Create a Soil Profile: In groups, students can create a visual soil profile that represents different soil types, including information on crops suitable for each type.

Teacher Self-Evaluation:

WEEK 6: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Planting Sites and Establishing Crops

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Identify different types of planting sites from pictures.
2. Describe the different types of planting sites for crop establishment.
3. Prepare a suitable planting site for crop establishment.
4. Appreciate the different types of planting sites for crop establishment.

Key Inquiry Question:

- What are the different types of planting sites for crop establishment?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture pg 23-24
- Photographs of various planting sites
- Teacher's Notes

Organisation of Learning:

Introduction (5 minutes):

- Review Previous Lesson: Begin with a quick recap of the last topic on the importance of crops and their impact on food production.
- Reading and Discussion: Guide learners to read and discuss relevant content from the Spark Agriculture textbook, focusing on identifying different planting sites.

Lesson Development (30 minutes):

Step 1: Observe and Identify

- Activity: Divide the class into small groups and provide each group with a set of photographs that depict various planting sites (e.g., home gardens, farms, greenhouses, and community gardens).
- Task: Each group will look at the photos and identify at least three different types of planting sites.

Step 2: Group Discussion

- Activity: After identifying the planting sites, bring the class back together.
- Task: Allow each group to share their findings. Discuss as a class the characteristics of each planting site and what makes them suitable for crop establishment.

Step 3: Description and Meaning

- Activity: Ask learners to think about what a "planting site" means.
- Task: Guide them to describe the different planting sites collectively, focusing on their advantages and disadvantages for crop establishment.

Step 4: Preparing a Planting Site

- Activity: Briefly introduce the main elements needed to prepare a suitable planting site (e.g., soil quality, sunlight, water access).

- Task: Have learners suggest what steps they would take to prepare a planting site using the concepts discussed.

Conclusion (5 minutes):

- Summarize Key Points: Recap the types of planting sites identified and their importance for crop growth.

- Interactive Activity: Conduct a quick matching game where students match phrases like "sunlight access" or "soil quality" to the correct planting site.

- Preview Next Session: Explain that the next lesson will delve deeper into soil preparation and planting techniques.

Extended Activities:

1. Field Trip: Organize a visit to a local farm or garden where students can see different planting sites in real life.

2. Create a Guide: Ask students to create a simple guide or poster that explains how to establish different types of planting sites, utilizing drawings or photos they find.

3. Research Project: Assign a task where students research a particular type of planting site, its location, and the types of crops best suited for it, then present their findings.

Teacher Self-Evaluation:

WEEK 6: LESSON 3 & 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Planting Sites and Establishing Crops

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Identify the suitable planting site for crop establishment.
2. Prepare a planting site using a suitable tilth for establishing selected planting materials.
3. Enjoy preparing a planting site using a suitable soil tilth.

Key Inquiry Question(s):

- How do you prepare a planting site?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Panga, jembe, slasher, compost manure
- Planting materials for a crop of choice
- Containers, sacks
- Spark Agriculture pg 28-29

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson focused on the importance of soil health and its impact on crop growth.
- Guide learners to read and discuss relevant content from Spark Agriculture, emphasizing the understanding of suitable planting sites and soil preparation.

Lesson Development (30 minutes):

Step 1: Identifying Suitable Planting Sites

- In groups, discuss factors that make a planting site suitable (such as sunlight, water availability, and soil type).
- Each group selects a crop they want to establish and determines the best site for it on school grounds or in a hypothetical scenario.

Step 2: Preparing the Planting Site

- Introduce tools (panga, jembe, slasher) and their purposes in site preparation.
- Demonstrate how to use the tools safely and effectively to clear the site of debris and weeds.

Step 3: Creating Suitable Soil Tilth

- Explain the term "tilth" and why it is essential for planting crops.
- Each group will practice turning over the soil and mixing in compost manure to create a rich planting medium. Discuss the importance of texture and consistency in soil preparation.

Step 4: Planting the Selected Materials

- Distribute planting materials and guide groups to plant their chosen crop in their prepared site, using proper spacing and depth.

- Encourage learners to record their experiences and the steps they followed in their gardening journals.

Conclusion (5 minutes):

- Summarize the key points: the importance of selecting the right site, tools for preparation, creating good soil tilth, and the process of planting.
- Conduct a brief interactive activity, such as a quick quiz or discussion about what they learned and enjoyed most about preparing the planting site.
- Prepare learners for the next session by previewing upcoming topics, such as crop maintenance and the growth cycle.

Extended Activities:

1. Home Project: Encourage students to prepare a small planting site at home. They can take pictures before and after to discuss in class.
2. Research Assignment: Have students research a different crop and present on its ideal planting conditions and soil preparation needs.
3. Garden Journal: Promote the idea of keeping a garden journal where learners can document their planting progress, challenges, and successes over time.

Teacher Self-Evaluation:

WEEK 7: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Selected Crop Management Practices

Specific Learning Outcomes:

- By the end of the lesson, the learner should be able to:

1. Define the term "Crop Management."
2. Identify the different crop management practices carried out on crops.
3. Discuss the crop management practices carried out on crops.
4. Search the internet for video clips on the crop management practices for established crops.
5. Acknowledge the need for crop management practices on established crops.

Key Inquiry Questions:

- How can we carry out management practices in crop production?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture, pg 43
- Digital devices (tablets)
- Pictures related to crop management practices

Organisation of Learning:

Introduction (5 minutes):

- Begin the lesson by briefly reviewing the previous lesson. Ask students to recall key points discussed.
- Introduce the topic of crop management and guide learners to read and discuss relevant sections from the learning resources.

Lesson Development (30 minutes):

Step 1: Define Crop Management

management" means.

- As a class, compile and refine their definitions and write them on the board.

Step 2: Identify Crop Management Practices

- Continue in their groups to identify and list different crop management practices (e.g., planting techniques, watering methods, pest control).
- Each group shares their list with the class. Compile major practices on the board.

Step 3: Discuss Crop Management Practices

- Facilitate a class discussion on why each of these practices is important for crop production and sustainability.
- Encourage learners to express their thoughts and reasons supporting the importance of these practices.

Step 4: Watch Video Clips

- In their groups, learners will search for and watch selected video clips on crop management practices using digital devices.

- After viewing, each group can pick one practice they found most interesting to discuss with the whole class.

Conclusion (5 minutes):

- Summarize the key points discussed during the lesson, focusing on definitions and practices of crop management.
- Conduct a quick interactive quiz using questions based on what they learned to reinforce main topics.
- Preview the next lesson by asking students to think about how technology can impact crop management.

Extended Activities:

- Research Assignment: Have students write a short report on a specific crop management practice, its importance, and how it is implemented. They can choose to include illustrations or diagrams.
- Field Trip: If possible, organize a field trip to a local farm to observe crop management practices in action.

Teacher Self-Evaluation:

WEEK 7: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Selected Crop Management Practices

Specific Learning Outcomes:

- By the end of the lesson, the learner should be able to:

1. Identify the methods used to control weeds in the farm.
2. Discuss the methods used to control weeds in the farm.
3. Demonstrate the different methods of weeding on established crops.
4. Enjoy weeding on the established crops in a planting site.

Key Inquiry Question:

- How can weeds be controlled in a farm or planting site?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture (pg 47-48)
- Jembes
- Pangas
- Digital devices (for research and discussion)

Organisation of Learning:

Introduction (5 minutes):

- Begin with a quick review of the previous lesson, asking students what they remember about the importance of crop management.
- Introduce today's topic on weed control by guiding learners to read and discuss pages 47-48 from the Spark Agriculture book. Highlight the importance of controlling weeds for healthy crops.

Lesson Development (30 minutes):

Step 1: Brainstorming

- In pairs, have students brainstorm and list different methods for controlling weeds in a farm or planting site. Encourage them to think about both natural and chemical methods.

Step 2: Group Discussion

- Divide the class into small groups and have them share their lists. Each group should discuss the pros and cons of each method mentioned and select the three they think are the most effective. Facilitate a group discussion on their findings.

Step 3: Practical Demonstration

- Gather students in a planting site where established crops are present. Demonstrate how to use each identified method (hand weeding, mulching, and the use of herbicides) to control weeds.

Step 4: Hands-On Weeding Activity

- Allow students to practice weeding on the established crops using the discussed methods. Encourage teamwork and safety.

Conclusion (5 minutes):

- Summarize the key points discussed during the class, including various weed control methods and their significance.
- Conduct a brief interactive activity, such as a quick quiz or a “Weed Control Game,” where students have to identify the best method for specific scenarios.
- Prepare them for the next session by previewing upcoming topics related to pest management in crops.

Extended Activities:

- Weed Journal: Have students keep a weed journal for a week, documenting any weeds they see in their surroundings and identifying possible control methods.
- Research Project: Assign students to research a specific weed and its impact on local crops, then present their findings to the class.
- Creative Poster: Students can create a poster that illustrates different weed control methods and their benefits, which could be displayed in the classroom.

Teacher Self-Evaluation:

WEEK 7: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Selected Crop Management Practices

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Explain how thinning and gapping are done in crop fields or planting sites.
2. Demonstrate how thinning and gapping are done in a crop field.
3. Acknowledge the need for thinning and gapping in a crop field.

Key Inquiry Question:

- How is gapping and thinning done in a crop field?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture, pg 49: Planting Sites
- School/Home garden
- Digital devices (tablets, smartphones, cameras)

Organisation of Learning:

Introduction (5 minutes):

- Begin by reviewing the previous lesson, discussing what crops need to grow successfully.
- Guide learners to read and discuss the relevant content from Spark Agriculture, focusing on how effective management practices promote healthy crop growth.

Lesson Development (30 minutes):**Step 1: Introduce Thinning and Gapping**

- Define thinning and gapping in the context of crop management.
- Explain why these practices are essential, such as improving air circulation, preventing overcrowding, and allowing sunlight to reach plants.

Step 2: Demonstrate Thinning and Gapping Techniques

- In the classroom, show learners images or videos demonstrating proper thinning and gapping techniques.
- Discuss the tools and techniques commonly used, such as scissors or specialized garden tools.

Step 3: Group Activity: Preparing for Fieldwork

- Organize learners into small groups.
- Assign each group a section of the school garden or a designated area in the home garden to practice thinning and gapping.
- Have them discuss the best approach based on what they learned in the previous steps.

Step 4: Hands-On Practice in the Field

- Instruct each group to carry out thinning and gapping in their assigned area.
- Encourage them to document their work with pictures or videos using digital devices, focusing on before and after comparisons.

Conclusion (5 minutes):

- Gather the class and summarize the key points covered regarding the definition, techniques, and importance of thinning and gapping.
- Conduct a quick interactive quiz or "thumbs up/thumbs down" to reinforce understanding—ask questions like “Is thinning important for plant growth?”
- Briefly preview the next lesson, hinting at the upcoming topic of pest management and how it relates to crop health.

Extended Activities:

1. Research Project: Assign learners to research a specific crop they are interested in and create a poster explaining how thinning and gapping could affect that crop's growth.
2. Video Diary: Encourage students to keep a video diary over the week documenting their own home gardening practices, focusing on any thinning or gapping they perform and the results.
3. Guest Speaker: Arrange for a local farmer or agricultural expert to speak to the class about real-world applications of thinning and gapping and other crop management practices.

Teacher Self-Evaluation:

WEEK 7: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Selected Crop Management Practices

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Explain how earthing up is done in a crop field.
2. Demonstrate earthing up in a planting site or farm.
3. Appreciate the need for earthing up in a crop field.

Key Inquiry Questions:

- How is earthing up done on crops in a farm?
- What is the importance of earthing up on crops?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture (pg 48)
- Jembes/Pangas
- Digital devices (tablets/smartphones)
- Planting sites (school or home garden)

Organization of Learning:

Introduction (5 minutes):

- Start the lesson by briefly reviewing the previous topic on crop management practices.
- Introduce the concept of earthing up by having students read and discuss the relevant content from *Spark Agriculture*, focusing on key concepts and terminology.

Lesson Development (30 minutes):

Step 1: Understanding Earthing Up

- In pairs, students will discuss and describe in simple terms how earthing up is done.
- Encourage them to refer to specific methods and techniques mentioned in the learning resource.
- Call on a few pairs to share their definitions with the class.

Step 2: The Importance of Earthing Up

- Guide students to brainstorm the benefits of earthing up, such as preventing tuber exposure and protecting plants from weeds.
- Have them record their ideas in written form, either individually or in their pairs.
- Share these benefits as a class, highlighting the importance of earthing up.

Step 3: Demonstrating Earthing Up

- Take students to the planting site or garden.
- Demonstrate the earthing up technique using jembes/pangas.
- Divide students into small groups to practice the method on their plants, ensuring they apply what they learned from the discussion.

Step 4: Recording the Activity (Optional)

- Students can take photos or videos of their earthing up process using digital devices.
- They can later create a presentation or a digital poster showcasing the steps they took and the benefits of earthing up.

Conclusion (5 minutes):

- Summarize the key points from the lesson, including the steps involved in earthing up and its importance.
- Engage learners in a quick interactive quiz or discussion about what they learned.
- Preview the next topic to be covered in the following session, encouraging students to think about the role of other crop management practices.

Extended Activities:

- Research Project: Assign learners to research different crops that benefit from earthing up and present their findings to the class.
- Reflection Journal: Have students maintain a journal where they document their experiences with earthing up in their home gardens or school planting sites, including observations on plant growth.
- Peer Teaching: Pair students to teach each other about earthing up, fostering collaborative learning.

Teacher Self-Evaluation:

WEEK 9: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Selected Crop Management Practices

Specific Learning Outcomes:

- By the end of the lesson, the learner should be able to:

1. Explain how hardening is done in crop management.
2. Search the internet for clips and information on hardening of crops as a way of management.
3. Acknowledge the need for hardening in crop management.

Key Inquiry Question(s):

- How is hardening done on crops?
- What is the importance of hardening crops?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture pg 49
- Video clips
- Digital devices
- Teacher's Notes

Organization of Learning:

Introduction (5 minutes):

1. Review the previous lesson on crop management practices, focusing on the need for nurturing crops.
2. Guide learners to read pages related to hardening from Spark Agriculture and discuss key ideas with a partner, ensuring understanding of hardening in terms of protecting young plants.

Lesson Development (30 minutes):

Step 1: Describe Hardening

- In pairs, learners will describe in their own words what hardening means. Discuss how it helps young plants adjust to outdoor conditions.

Step 2: Research Hardening Techniques

- Using digital devices, learners will search for video clips and articles about hardening techniques for crops. Encourage them to focus specifically on maize and beans.

Step 3: Hands-on Practice

- Organize learners into groups and select a crop (maize or beans). Each group will simulate the hardening process.
- For example, they can demonstrate setting the plants outside for a few hours a day, gradually increasing the time spent outside.

Step 4: Class Discussion

- Reconvene and have each group share their findings and demonstrations. Discuss the steps they took, what they learned from the clips, and any challenges they faced during the practice.

Conclusion (5 minutes):

1. Summarize the key points learned about the hardening process and its importance in crop management.
2. Conduct a brief interactive quiz or "thumbs up/thumbs down" activity where learners can affirm their understanding of hardening.
3. Preview upcoming topics, such as pest management or types of fertilizers, to spark curiosity.

Extended Activities:

- Research Project: Assign students to choose a specific crop and prepare a short report on how hardening can affect its growth and success. They can include visuals or charts.
- Field Trip: Organize a visit to a local farm or greenhouse where students can observe the hardening process in practice.
- Presentation: Have learners create a presentation or poster about the effects of hardening on a specific crop, focusing on different environments (e.g., indoors vs. outdoors).

Teacher Self-Evaluation:

WEEK 9: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Selected Crop Management Practices

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. State the importance of management practices in crop production.
2. Discuss the importance of management practices in crop production.
3. Search the internet for more information on the importance of management practices in crop production.
4. Appreciate the importance of various management practices in crop production.

Key Inquiry Question:

- What is the importance of management practices in crop production?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Teacher's Notes
- Digital devices (tablets/computers)
- Internet access
- Spark Agriculture, pages 47-49

Organisation of Learning:

Introduction (5 minutes):

- Begin with a quick review of the previous lesson on crop production.
- Ask students to share any thoughts or experiences related to crop management they have had since the last meeting.
- Transition to the new topic by guiding learners to look at the learning resources, specifically pages 47-49, and discuss key concepts with the class.

Lesson Development (30 minutes):

Step 1: Brainstorming

- In small groups, have students brainstorm the various management practices they know that influence crop production (e.g., irrigation, fertilization, crop rotation).
- Each group will write down their ideas on a shared sheet.

Step 2: Group Discussion

- Groups will then share their brainstorming results with the class.
- Facilitate a discussion focusing on why these practices are important. Prompt students to consider factors such as yield, sustainability, and quality.

Step 3: Internet Research

- Provide students with digital devices and give them specific instructions on how to search for more information about the importance of management practices in crop production.
- Suggest students find one interesting fact or practice that they were not previously aware of.

Step 4: Sharing Findings

- Ask students to pair up and share what they learned from their internet research with a partner.

- Encourage them to discuss how these practices can enhance crop production.

Conclusion (5 minutes):

- Summarize the key points discussed during the lesson, emphasizing the importance of management practices in crop production.
- Conduct a quick interactive activity, such as a "Think-Pair-Share," where students reflect on what management practice they think is crucial and why.
- Preview the next lesson, which will focus on specific management practices and techniques, encouraging learners to consider questions they still have regarding crop management.

Extended Activities:

1. Field Trip/Visit: Arrange a visit to a local farm where students can observe crop management practices in action.
2. Research Project: Assign students to research a specific crop and its management practices, presenting their findings to the class.
3. Create a Guide: In groups, students create a simple guide or infographic on best management practices for a specific crop.

Teacher Self-Evaluation:

WEEK 9: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Selected Crop Management Practices (Assessment)

Specific Learning Outcomes:

- By the end of the lesson, the learner should be able to attempt questions on the Assessment Exercise 6.

Key Inquiry Question(s):

- What are the essential practices in managing crops effectively?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Assessment books, Spark Agriculture pg 49-50.

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on crop management.

- Initiate a group discussion by asking students what they remember about crop management practices.

- Guide learners to read relevant sections from the Spark Agriculture textbook (pg 49-50) to refresh their understanding of key concepts.

Lesson Development (30 minutes):

Step 1: Understanding Crop Management Practices

- Explain key crop management practices, such as planting, watering, fertilizing, and pest control.
- Ask students to contribute what they know about each practice.

Step 2: Pair Work - Discussion

- In pairs, learners will discuss the different crop management practices they've read about.
- Students will brainstorm examples of these practices and how they impact crop yield.

Step 3: Individual Practice - Answering Questions

- Provide students with Assessment Exercise 6 from the textbook.
- Guide them to work individually to answer the questions related to the selected crop management practices.

Step 4: Sharing Results

- Reconvene as a class.
- Invite pairs to share their answers to a few selected questions from the assessment.
- Facilitate a discussion on why these practices are important, highlighting any misconceptions.

Conclusion (5 minutes):

- Summarize the key points discussed about selected crop management practices.
- Conduct a brief interactive quiz where students can raise their hands to answer questions related to the key concepts learned.

- Provide a preview of the next session on advanced crop management techniques and suggest questions for students to think about: “What are some challenges farmers face in crop management?”

Extended Activities:

- Field Visit: Organize a visit to a local farm to observe crop management techniques in action.
- Research Project: Assign students to research a specific crop and its management practices, then present their findings to the class.
- Gardening Activity: Encourage learners to start a small garden at home or in school, applying the crop management practices discussed in class.

Teacher Self-Evaluation:

WEEK 9: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products; Eggs and Honey

Specific Learning Outcomes:

- By the end of the lesson, students should be able to:

1. Differentiate between sorting and grading as used in the preparation of animal products.
2. Identify factors to consider when sorting and grading eggs.
3. Discuss the factors to consider when sorting and grading eggs.
4. Prepare flashcards/posters on the factors to consider when sorting and grading eggs.
5. Appreciate the need for sorting and grading of eggs.

Key Inquiry Questions:

1. What are the reasons for sorting and grading eggs?
2. How do you prepare eggs for storage and use?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture (pages 64-65)
- Pictures of eggs in various grades

- Digital devices (tablets or computers for research)

Organisation of Learning:

Introduction (5 minutes):

- Review: Briefly recap the content from the previous lesson on animal products.
- Discussion: Guide learners to read sections from the *Spark Agriculture* and discuss key concepts related to sorting and grading. Focus on the definitions and importance.

Lesson Development (30 minutes):

Step 1: Define Sorting and Grading

- Activity: In pairs, students use digital devices or dictionaries to look up the meanings of "sorting" and "grading."
- Discussion: Share definitions with the class, highlighting differences between sorting (organizing items based on specific criteria) and grading (evaluating the quality of items).

Step 2: Explore Factors for Sorting & Grading

- Activity: In small groups, learners discuss and list factors to consider when sorting and grading eggs (e.g., size, color, cleanliness, and cracks).
- Sharing: Each group shares their lists with the class. The teacher compiles a master list on the board.

Step 3: Create Visual Aids

- Activity: Still in small groups, students prepare flashcards or posters that illustrate the factors to consider when sorting and grading eggs.
- Creativity: Encourage creativity with colors, drawings, and clear text.

Step 4: Present and Discuss

- Activity: Each group presents their flashcards/posters to the class.
- Q&A: Allow for questions and discussions after each presentation to clarify understanding and emphasize important points.

Conclusion (5 minutes):

- Summary: Briefly review key points covered in the lesson: the definitions of sorting and grading, the factors involved in each, and the importance of these processes in agriculture.
- Interactive Activity: Conduct a quick quiz or a game where students identify whether examples are sorting or grading.
- Preview: Provide a teaser for the next lesson on the importance of honey production and its grading, encouraging students to think about parallels to egg grading.

Extended Activities:

- Research Project: Students can research different grading systems used in various countries for eggs or other animal products and prepare a short presentation on their findings.
- Practical Demonstration: If possible, organize a field trip or a demonstration to a local farm or agricultural facility that deals with eggs for real-world experience in sorting and grading.
- Create a Guide: Students can work on developing a comprehensive guide on egg storage techniques and the importance of proper sorting and grading.

Teacher Self-Evaluation:

WEEK 10: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products: Eggs and Honey

Specific Learning Outcomes:

- By the end of the lesson, the learner should be able to:

1. Sort and grade eggs for various purposes.
2. Acknowledge the need for sorting and grading of eggs.

Key Inquiry Question(s):

- How do you sort and grade eggs for various purposes?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Eggs
- Weighing machine
- Spark Agriculture pg 65
- Trays
- Digital devices

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on animal products.
- Ask students to share one new thing they learned.
- Guide learners to read and discuss relevant content from Spark Agriculture, focusing on sorting and grading eggs.

Lesson Development (30 minutes):

Step 1: Introduction to Sorting and Grading

- Discuss the definitions of sorting and grading.
- Explain why sorting and grading eggs are important in agriculture (e.g., quality control, pricing, and preparation for sale).
- Use visuals or information from Spark Agriculture to illustrate different grades of eggs.

Step 2: Demonstration

- Show learners how to use a weighing machine and how to inspect eggs for quality (checking for cracks, size, and color).
- Highlight the criteria used for sorting, such as weight ranges for different grades (large, medium, small).

Step 3: Group Activity

- Divide learners into small groups and provide each group with trays and eggs.
- Instruct them to sort and grade the eggs based on the criteria discussed. Each group will classify their eggs into different grades and arrange them on trays.

Step 4: Presentation and Discussion

- Have each group present their sorted and graded eggs to the class.

- Encourage students to explain their reasoning for the sorting and grading decisions made.
- Facilitate a discussion around the variations in grading and how it may differ based on local standards.

Conclusion (5 minutes):

- Summarize key points: the importance of sorting and grading, the methods used, and the significance in the agriculture industry.
- Conduct a quick interactive quiz or game to reinforce the main topics learned during the lesson.
- End with a preview of the next session, which will focus on honey production and its processing.

Extended Activities:

1. Egg Carton Design: Learners can design and create a marketing strategy for their graded eggs, including packaging and labeling ideas that highlight quality.
2. Research Assignment: Students can research a specific type of egg production (e.g., organic, free-range) and present their findings to the class.
3. Visit to a Local Farm: Organize a field trip to a local farm that produces eggs, where students can see the processes in action.
4. Create a Video: Learners can create a short video demonstrating how to sort and grade eggs, sharing tips for best practices.

Teacher Self-Evaluation:

WEEK 10: LESSON 2

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products: Eggs and Honey

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. State the importance of grading and sorting eggs.
2. Discuss the importance of sorting and grading eggs.
3. Search the internet for more information on the importance of sorting and grading eggs.
4. Embrace the preparation of animal products for various purposes.

Key Inquiry Question(s):

- What is the importance of sorting and grading eggs?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture, pages 64-65
- Teacher's Notes
- Digital devices
- Internet access

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on animal products and their uses.
- Invite students to share any prior knowledge about eggs and their importance in our diets.
- Guide learners to skim through relevant content in Spark Agriculture pages 64-65 and discuss the main ideas.

Lesson Development (30 minutes):

Step 1: Brainstorming Session

- In small groups, learners brainstorm the different reasons why eggs might need to be sorted and graded.
- Facilitate a short discussion where each group shares one or two ideas while writing key points on the board.

Step 2: Group Discussion

- Encourage students to discuss how sorting and grading impact consumers, sellers, and producers.
- Prompt groups to think about factors like quality, pricing, and safety.

Use guiding questions such as:

- Why do stores display graded eggs?
- How does grading affect the quality of eggs we buy?

Step 3: Research Activity

- Direct learners to use digital devices to research the importance of grading and sorting eggs.
- Provide a few reputable websites they can look at or ask them to find a specific article on an educational site.

Step 4: Sharing Findings

- After the research, have a few groups present their findings to the class.
- Encourage other students to ask questions or provide additional insights based on their own research.

Conclusion (5 minutes):

- Summarize key points discussed throughout the lesson about the importance of sorting and grading eggs.
- Conduct a brief interactive activity, such as a quick quiz or a think-pair-share, to reinforce the main topics.
- Preview the next session by introducing a related topic, such as how honey is produced and its uses.

Extended Activities:

- Egg Art Project: Students can use empty egg cartons to create art while labeling different grades of eggs and their characteristics.
- Field Trip/Virtual Tour: Plan a visit to a local farm or a virtual tour of an egg production facility to see how eggs are sorted and graded in real life.
- Research Project: Students can choose one animal product (like honey or meat) and explore how it is prepared for market, presenting their findings in a short report or presentation.

Teacher Self-Evaluation:

WEEK 10: LESSON 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products: Eggs and Honey

Specific Learning Outcomes:

- By the end of the lesson, students should be able to:

1. State the importance of grading and sorting eggs.
2. Discuss the significance of sorting and grading eggs for various purposes.
3. Search the internet for more information on the importance of sorting and grading eggs.
4. Appreciate the preparation of animal products for various uses.

Key Inquiry Question(s):

- What is the importance of sorting and grading the eggs?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture (pages 64-65)
- Teacher's Notes
- Digital devices with internet access

Organisation of Learning:

Introduction (5 minutes):

- Begin the lesson by briefly reviewing the previous topic discussed in class.
- Ask students about any prior knowledge of eggs and their uses.
- Guide learners to read and discuss the relevant content from the *Spark Agriculture* resource, emphasizing key concepts related to sorting and grading eggs.

Lesson Development (30 minutes):

Step 1: Brainstorming

- Divide the class into small groups.
- Each group will brainstorm and list down reasons why sorting and grading eggs is important.
- Encourage them to think about food safety, quality, and market values.

Step 2: Discussion

- Groups will share their brainstormed lists with the class.
- Discuss the significance of each reason and how it affects consumers, farmers, and the industry overall.

Step 3: Research Activity

- In pairs, students will use digital devices connected to the internet to search for additional information on the importance of sorting and grading eggs.
- Provide guiding questions to help them focus on specific aspects, such as the impact on pricing and quality assurance.

Step 4: Present Findings

- Each pair will briefly present their findings to the class, highlighting at least one interesting fact they discovered.

- Facilitate a discussion on how technology and information access have changed farming practices and consumer awareness.

Conclusion (5 minutes):

- Summarize the key points discussed and the learning objectives that were achieved during the lesson.
- Conduct a quick interactive activity, such as a quiz or matching game, to reinforce the main topics.
- Prepare learners for the next session by previewing upcoming topics, such as honey production or other animal products.

Extended Activities:

1. Egg Quality Experiment: Have students conduct a simple experiment to observe and compare the quality of graded eggs (e.g., different grades from a grocery store).
2. Create a Presentation: Assign students to create a presentation on how different countries grade and sort eggs, including unique practices and cultural significance.
3. Visit a Local Farm: Organize a field trip to a local farm where students can observe the sorting and grading process firsthand.

Teacher Self-Evaluation:

WEEK 10: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products: Eggs and Honey

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

1. Define the term honey processing.
2. Outline the steps followed when processing honey.
3. Discuss the honey processing process.
4. Search the internet for clips on how honey is processed from combs using the crushing and straining method.
5. Acknowledge the process of honey processing from the combs.

Key Inquiry Question(s):

- How is honey processed using the crushing and straining method?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture (pg 66-67)
- Video clips on honey processing
- Digital devices (for internet access)

- Teacher's Notes
- Posters for group presentations

Organization of Learning:

Introduction (5 minutes):

- Begin with a brief review of the previous lesson on animal products.
- Guide learners to read relevant sections in Spark Agriculture that cover honey and its production.
- Discuss key concepts to establish a foundational understanding of honey processing.

Lesson Development (30 minutes):

Step 1: Define Honey Processing

- In pairs, have students define honey processing using their own words.
- Share definitions with the class to create a common understanding.

Step 2: Watch Educational Clips

- Divide the class into small groups.
- Each group will use digital devices to search for and watch short clips on honey processing using the crushing and straining method.
- Encourage groups to take notes on the key steps shown in the videos.

Step 3: Outline the Processing Steps

- Following the video, ask each group to outline the steps they observed during honey processing.
- Share findings within groups and create a compiled list of steps on a piece of paper (or digital format).

Step 4: Create Informational Posters

- Groups create a poster based on their outlined steps.
- Encourage creativity in how they present information visually (drawings, bullet points, etc.).
- Posters should include at least 5 steps with brief explanations.

Conclusion (5 minutes):

- Wrap up by summarizing the key points discussed in class: what honey processing is, the steps involved, and the methods demonstrated in the videos.
- Conduct a brief interactive quiz or game to reinforce the main topics (e.g., Kahoot! or similar tool).
- Preview the next session, hinting at topics like the benefits of honey and its uses in agriculture and cooking.

Extended Activities:

- Research Assignment: Ask students to research a different animal-derived product (e.g., milk, cheese, eggs) and present how it is processed.
- Field Trip (Virtual or Real): Plan a visit to a local apiary (bee farm) or a dairy to see animal products being processed firsthand.
- Creative Writing: Have students write a short story from the perspective of a bee explaining the journey of how honey is made and processed.

Teacher Self – Evaluation:

WEEK 11: LESSON 1

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products; Eggs and Honey

Specific Learning Outcomes:

- By the end of the lesson, learners should be able to:

- 1.Explain how honey is packed.
2. Discuss how honey is packed after processing.
- 3.Search the internet for more information on how honey is packed.
- 4.Appreciate the need for packing honey after processing.

Key Inquiry Question:

- How is honey packed after processing?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture pg 68
- Pictures of honey packing processes
- Teacher's Notes
- Access to digital devices for research

- Resource person (if available, such as a local beekeeper)

Organisation of Learning:

Introduction (5 minutes):

- Begin by reviewing what was covered in the previous lesson about honey and its benefits.
- Ask students to share any new experiences or thoughts they have on honey since last class.
- Introduce the key inquiry question and outline today's lesson focus on how honey is packed after processing.

Lesson Development (30 minutes):

Step 1: Understanding Honey Processing

- Display pictures of honey extraction and processing.
- Facilitate a short discussion on the importance of proper processing before packing. Use questions like, "What happens to honey right after it's extracted from the hive?" and "Why is it important to process honey?"

Step 2: Group Discussion on Packing

- Divide learners into small groups.
- Assign each group the task of discussing how honey is typically packed after processing, using Spark Agriculture pg 68 as a guide.
- Encourage them to think about materials used for packing (like jars or bottles) and why those materials are chosen.

Step 3: Online Research

- Direct learners to use digital devices to search for more information about honey packing processes.

- Ask them to look for at least one new fact or an interesting method of packing they uncover through their research.

Step 4: Group Presentations

- Have each group present their findings to the class, focusing on how honey is packed and the materials used.
- Facilitate a brief Q&A after each presentation to encourage engagement and clarification of concepts.

Conclusion (5 minutes):

- Summarize the key points discussed: the importance of processing honey, types of packing materials, and the need for proper packing methods.
- Conduct a brief interactive activity, such as a Kahoot quiz, to reinforce concepts and create a fun review environment.
- Provide a preview of the next session, which will delve deeper into the health aspects and various uses of honey.

Extended Activities:

- Honey Packaging Project: Have students create a mock-up of a honey packaging design, including labels and information they learned about the need for packaging.
- Field Trip: Plan a visit to a local bee farm to see first-hand how honey is processed and packed.
- Research Assignment: Assign students to research various types of honey (e.g., raw, filtered, whipped) and how their packaging might differ.

Teacher Self-Evaluation:

WEEK 11: LESSON 2 & 3

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products: Eggs and Honey

Specific Learning Outcomes:

- By the end of the lesson, the learner should be able to:

1. Visit a nearby farm to observe how honey is processed.
2. Carry out honey processing and package the processed honey.
3. Embrace preparation of animal products for various purposes.

Key Inquiry Question:

- How can we prepare animal products?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Nearby Farm
- Digital Devices
- Spark Agriculture pg 66-68

Organisation of Learning:

Introduction (5 minutes):

- Review the previous lesson on animal products and their uses.
- Guide learners to read and discuss relevant content from Spark Agriculture, particularly focusing on honey production. Highlight key concepts such as beekeeping, harvesting, and processing honey.

Lesson Development (30 minutes):**Step 1: Visit to a Nearby Farm**

- Students will travel to the nearby farm where they will observe the honey processing systems.
- Engage learners in a discussion to outline what they expect to see regarding the honey extraction and processing methods.

Step 2: Recording Observations

- Using digital devices, students will record audio or take notes of the farmer's explanation about the honey processing techniques being demonstrated (e.g., extraction, filtering, bottling).
- Encourage students to ask questions to deepen their understanding and gather detailed information.

Step 3: Honey Processing Activity

- After the demonstration, students will participate in a hands-on experience of processing honey.
- Assign roles such as extracting, filtering, and bottling among the groups, ensuring all students are actively involved.

Step 4: Packaging Process

- Guide students through the appropriate methods of packaging processed honey.
- Discuss the importance of hygiene and labeling when packaging honey for sale or storage.

Conclusion (5 minutes):

- Summarize key points observed during the farm visit and the honey processing activity.
- Conduct a brief interactive quiz or discussion to reinforce the learning objectives.
- Prepare learners for the next session by previewing topics such as the significance of bee conservation in agriculture.

Extended Activities:

- Research Project: Learners may work on a research project to explore the different types of honey and their health benefits, presenting their findings to the class.
- Creative Packaging: Students can design creative labels for their honey products, incorporating facts learned during the lesson about honey's benefits.
- Community Engagement: Plan a visit to local markets to understand how honey is sold and marketed, and discuss how students can contribute to local agricultural practices.

Teacher Self-Evaluation:

WEEK 11: LESSON 4

SCHOOL	LEVEL	LEARNING AREA	DATE	TIME	ROLL
	GRADE 7	AGRICULTURE AND NUTRITION			

Strand: Food Production Processes

Sub Strand: Preparing Animal Products: Eggs and Honey (Assessment)

Specific Learning Outcomes:

By the end of the lesson, the learner should be able to attempt questions on the Assessment Exercise 9 in the learner's book.

Key Inquiry Question(s):

- How do we effectively prepare and process eggs and honey for consumption?
- What are the nutritional benefits of eggs and honey?

Core competencies	Values	PCIs
• Self- efficacy • Digital literacy	• Respect • Integrity • Responsibility	• Safety and Security • Food Hygiene

Learning Resources:

- Spark Agriculture pg 69-70
- Assessment books

Organisation of Learning:

Introduction (5 minutes):

- Begin by reviewing the key points from the previous lesson on food production and its importance.
- Ask students to share what they remember about preparing animal products like eggs and honey.
- Guide learners to read selected content from Spark Agriculture (pg 69-70) and discuss any interesting facts they find.

Lesson Development (30 minutes):

Step 1: Understanding the Content

- In pairs, students will identify and summarize key points related to the preparation of eggs and honey.
- Circulate the room to assist groups as needed, ensuring they focus on the processes involved in food production and the benefits of these animal products.

Step 2: Group Discussion

- Each pair will present their summaries to the class, encouraging a dialogue about what they learned.
- Highlight any misconceptions or common themes during these presentations to solidify understanding.

Step 3: Assessment Exercise

- Provide the learners with Assessment Exercise 9 in their books.
- Instruct them to answer the questions individually, reminding them to reference their notes and the textbook when needed.

Step 4: Peer Review

- After completing the assessment, students will exchange their books with a partner for peer review.

- Discuss the correct answers as a class, encouraging students to express their reasoning and understanding of the concepts.

Conclusion (5 minutes):

- Summarize the key points discussed about the preparation of eggs and honey and their importance in the food production process.
- Conduct a quick interactive activity such as a "think-pair-share" where students share one new fact they learned about eggs or honey.
- Preview the next session's focus on sustainable food production practices to spark curiosity.

Extended Activities:

- Create a simple recipe using eggs or honey and illustrate the steps visually.
- Conduct research on different types of eggs (e.g., free-range, organic) or honey (e.g., raw, filtered) and prepare a mini-presentation to share with the class.
- Plan a small classroom experiment on how to preserve eggs or extract honey at home (with parental supervision if applicable).

Teacher Self-Evaluation: