5

DepED
DEPARTMENT OF EDUCATION

Worksheet for Science

Quarter 2

Lesson 4

Worksheet for Science Grade 5
Quarter 2: Lesson 4
SY 2023-2024

Development Team

Writers: ***Randel D. Estacio***
Validators: ***Marie Grace S. Cabansag***
Illustrator:
Layout Artist:

Management Team
Juan Dela Cruz, Juan Dela Cruz, and Juan Dela Cruz

LEARNING ACTIVITY SHEET 2

Learning Area:	Science 5	**Quarter:**	2nd Quarter
Lesson No.:	4	**Date:**	
Lesson Title/ Topic:	**Plant Classification (Angiosperms and Gymnosperms)**		
Name:		**Grade & Section:**	

Day 3

I. Activity No. 1: Exploring Plant Diversity: Classifying Angiosperms and Gymnosperms (60 minutes)

II. Objective(s):

At the end of the activity, the learners are expected to:

- observe and classify plant specimens into angiosperms and gymnosperms based on their characteristics; and
- develop REVISION: demonstrate an understanding of the distinguishing features of angiosperms and gymnosperms.

III. Materials Needed:

- Various plant specimens (both angiosperms and gymnosperms)
- Magnifying glasses (optional)
- Classification chart or table
- Worksheet or notebook for recording observations

IV. Instructions:

Introduction (5 minutes):

- Welcome, students! Today, we will be exploring the diverse world of plants and learning how to classify them into two major groups: angiosperms and gymnosperms.

Plant Specimen Observation (20 minutes):

- Examine each plant specimen provided by the teacher.
- Observe the features such as flowers, fruits, leaves, and seeds carefully.
- Use magnifying glasses if necessary to examine finer details.
- Record your observations in the worksheet or notebook.

Guide Questions:

1. What are the distinguishing features of each plant specimen?

2. How do the characteristics of the specimens differ between angiosperms and gymnosperms?

_____
_____
_____
_____
_____

Classification Process (25 minutes):

- Refer to the classification chart or table provided by the teacher.
- Classify each plant specimen as either an angiosperm or gymnosperm based on your observations.
- Collaborate with your peers to discuss and verify your classifications.
- Record your classifications in the worksheet or notebook.

Guide Questions:

1. What characteristics did you use to classify each plant specimen?

_____
_____
_____
_____
_____

2. Did you encounter any challenges while classifying the specimens? How did you overcome them?

_____
_____
_____
_____
_____

Group Discussion (10 minutes):

- Share your classifications with your group members.
- Discuss any differences in classifications and reasons behind them.
- Clarify any misconceptions and ask questions to deepen understanding.

V. Rubric or Scoring Guide:

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
Plant Observation	Thoroughly observes and records detailed features of each plant specimen.	Observes features of plant specimens with good detail, but may miss some finer details.	Observes features of plant specimens with limited detail or accuracy.	Does not observe or record features of plant specimens accurately.
Classification Process	Classifies each plant specimen accurately based on	Mostly classifies plant specimens accurately, with	Classifies plant specimens with some	Classifies plant specimens

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
	observable characteristics.	few errors in classification.	inaccuracies or inconsistencies.	inaccurately or inconsistently.
Collaboration	Actively collaborates with peers, engages in discussions, and shares ideas effectively.	Participates in group discussions and collaborates with peers, but may need prompting to contribute fully.	Participates minimally in group discussions and collaboration, and shows limited engagement.	Does not collaborate with peers or contribute to group discussions.

VI. Synthesis/Extended Practice/Differentiation (if needed):

Synthesis:

- *Plants can be classified into two major groups: angiosperms and gymnosperms, based on observable characteristics such as flowers, fruits, leaves, and seeds.*
- *Angiosperms are flowering plants with seeds enclosed within fruits, while gymnosperms are non-flowering plants with seeds exposed on cones or scales.*
- *Classification helps us understand the diversity of plant life and the unique features of different plant groups.*

How does classifying plants into angiosperms and gymnosperms based on their observable characteristics such as flowers, fruits, leaves, and seeds help scientists and botanists understand the vast diversity of plant life and appreciate the distinct features of each plant group?

_____

_____

_____

_____

_____

Extended Practice:

- Take a nature walk and collect additional plant specimens to classify into angiosperms and gymnosperms.
- Research specific plant species and create a classification key to classify them into angiosperms and gymnosperms based on their characteristics.

Suggested Modification of the Activity:

- For students with visual impairments, provide tactile models or descriptions of plant specimens to facilitate observation and classification.
- To incorporate technology, use digital images of plant specimens for observation and classification activities on interactive whiteboards or tablets.

LEARNING ACTIVITY SHEET 2

Learning Area:	Science 5	**Quarter:**	2nd Quarter
Lesson No.:	4	**Date:**	
Lesson Title/ Topic:	**Plant Classification (Angiosperms and Gymnosperms)**		
Name:		**Grade & Section:**	

I. Activity No. 2: Plant Key Creators: Unraveling Plant Diversity (60 minutes)

II. Objective(s):

At the end of the activity, the learners are expected to:

- develop a plant classification key distinguishing between angiosperms and gymnosperms; and
- illustrate key characteristics of angiosperms and gymnosperms through sketches or illustrations.

III. Materials Needed:

- Drawing materials (paper, markers, colored pencils)
- Reference materials or examples of plant classification keys

IV. Instructions:

Introduction (5 minutes): Welcome, students! Today, you will work in small groups to create a plant classification key that distinguishes between angiosperms and gymnosperms. Follow the instructions carefully and be prepared to present your key to the class.

Brainstorming (15 minutes):

- In your group, discuss and list the distinguishing characteristics of angiosperms and gymnosperms based on your knowledge and the reference materials provided.
- Consider features such as flower structure, leaf shape, and seed arrangement.

Guide Questions:

1. What are some key differences between angiosperms and gymnosperms?

   _____
   _____
   _____
   _____
   _____

2. How can we represent these differences visually in our classification key?

   _____
   _____
   _____

Sketching (25 minutes):

- Using drawing materials, sketch or illustrate examples of each characteristic you listed in the Brainstorming part.
- Create clear and detailed drawings that clearly represent the features of angiosperms and gymnosperms.
- Make sure your illustrations are easily recognizable and distinguishable.

Guide Questions:

1. How can we best represent flower structures and leaf shapes in our drawings?
2. What details should we include to accurately depict seed arrangements?

Key Creation (15 minutes):

- Organize your sketches into a logical sequence to create your plant classification key.
- Include labels and descriptions for each characteristic to guide users through the key.
- Make sure your key is clear, easy to follow, and accurately distinguishes between angiosperms and gymnosperms.

Guide Questions:

1. What should be the first characteristic in our key, and how should we proceed from there?
2. How can we ensure that our key is user-friendly and informative?

V. Rubric or Scoring Guide:

Criteria	Excellent (4)	Good (3)	Fair (2)	Needs Improvement (1)
Distinguishing Characteristics	Key accurately distinguishes between angiosperms and gymnosperms with clear and detailed illustrations.	Key distinguishes between angiosperms and gymnosperms with mostly clear illustrations, but some details may be lacking.	Key distinguishes between angiosperms and gymnosperms, but illustrations are unclear or incomplete.	Key does not accurately distinguish between angiosperms and gymnosperms or lacks clear illustrations.
Organization	Key is well-organized, with a logical sequence of characteristics and clear labels/descriptions for each feature.	Key is organized, but may lack some clarity in the sequence of characteristics or descriptions.	Key is somewhat organized, but the sequence of characteristics or descriptions may be confusing.	Key lacks organization, making it difficult to follow or understand.

VI. Synthesis/Extended Practice/Differentiation (if needed):

Synthesis:

- *Plant classification keys are useful tools for identifying and categorizing different plant species based on their characteristics.*
- *Angiosperms and gymnosperms have distinct features that can be illustrated and used to create effective classification keys.*
- *Clear and accurate illustrations are essential for creating informative plant classification keys.*

How can clear and accurate illustrations of the distinct features of angiosperms and gymnosperms aid in the creation of effective plant classification keys, and how do these keys help scientists and botanists identify and categorize different plant species?

Extended Practice:

- Students can create additional plant classification keys for different groups of plants, such as ferns, mosses, or algae.
- Encourage students to use their keys to identify and classify plant specimens found in their local environment.

Suggested Modification of the Activity:

- For students with limited drawing skills, allow them to use digital tools or collage techniques to create their illustrations.
- Provide templates or guidelines for organizing the key to assist students in structuring their classifications effectively.

LEARNING ACTIVITY SHEET 2

Learning Area:	Science 5	**Quarter:**	2nd Quarter
Lesson No.:	4	**Date:**	
Lesson Title/ Topic:	**Characteristics of angiosperm and gymnosperm**		
Name:		**Grade & Section:**	

I. Activity No. 3: Plant Explorer Challenge: Test Your Plant Classification Skills (Duration: 30-45 minutes)

II. Objective(s):

At the end of the activity, the learners are expected to:

- reinforce understanding of plant classification concepts, particularly distinguishing between angiosperms and gymnosperms; and
- engage in collaborative learning and critical thinking through an interactive game format.

III. Materials Needed:

- Flashcards with images of various plant species (including angiosperms and gymnosperms)
- Game board or chart with categories for angiosperms and gymnosperms
- Timer (optional)

IV. Instructions:

Introduction (5 minutes): Welcome, Plant Explorers! Today, we will embark on an exciting adventure to test our plant classification skills through an interactive game. Our goal is to correctly classify plant species into angiosperms and gymnosperms. Let's dive in!

Game Rules and Instructions (20-30 minutes):

- Divide the class into two teams: Team Angiosperm and Team Gymnosperm.
- Set up the game board or chart with categories for angiosperms and gymnosperms.
- Shuffle the flashcards with images of various plant species.
- Show a flashcard to the first team. Each team will take turns identifying whether the plant species belongs to the angiosperm or gymnosperm category.
- If the team answers correctly, they earn a point. If not, the opposing team has the opportunity to steal the point by providing the correct classification.
- Continue playing until all flashcards have been used or until the designated time frame is reached.
- Tally the points to determine the winning team.

Guide Questions:

1. What characteristics distinguish angiosperms from gymnosperms?

_____

_____

_____

2. How can you identify whether a plant species is an angiosperm or gymnosperm?

V. Rubric or Scoring Guide:

Criteria	Points
Correct Classification	2
Stealing Points	1
Total Points Earned	/ 10

VI. Synthesis/Extended Practice/Differentiation (if needed):

Synthesis:

- *Plant classification involves distinguishing between angiosperms (flowering plants) and gymnosperms (non-flowering plants).*
- *Characteristics such as flower structure, leaf morphology, and seed arrangement can help classify plants into these categories.*
- *Collaborative learning through interactive games enhances understanding and retention of key concepts.*

How can interactive games that involve identifying flower structures, leaf shapes, and seed arrangements help students collaborate and deepen their understanding of plant classification, specifically distinguishing between angiosperms and gymnosperms?

Extended Practice:

- Create additional flashcards with images of plant specimens and continue playing the game in small groups or at home with family and friends.
- Conduct a plant classification scavenger hunt outdoors, where students identify and classify plants they encounter based on their characteristics.

Suggested Modification of the Activity:

- Adjust the difficulty level by including more challenging plant specimens or additional categories for classification, such as habitat or geographical distribution.
- Incorporate technology by creating a digital version of the game using educational apps or online platforms for virtual classroom settings.