

5

# Lesson Exemplar for Science 5

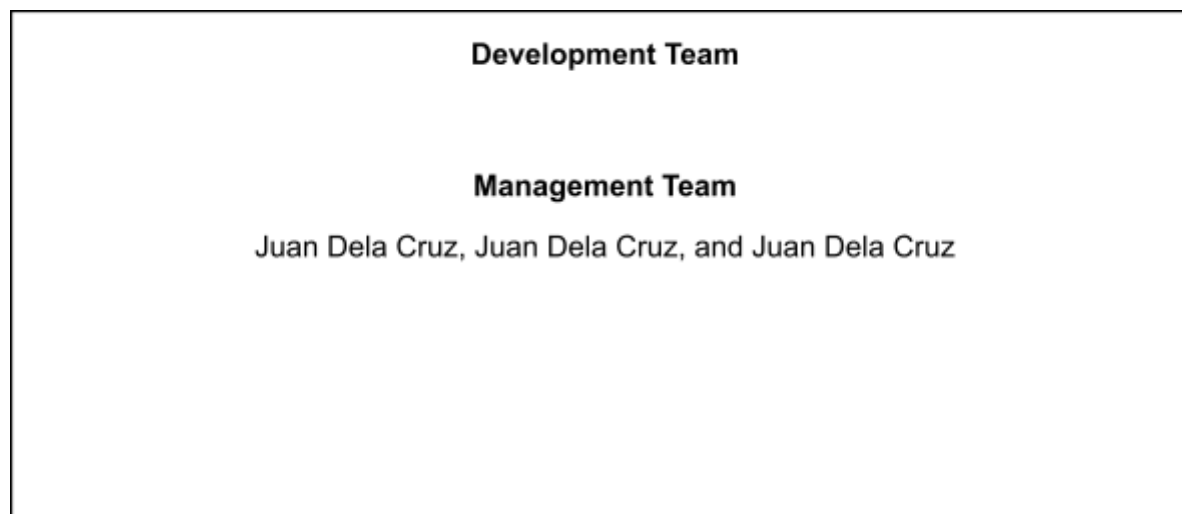
Week

8

**Lesson Exemplar for Science Grade 5**  
**Quarter 2: Week 8**  
**SY 2023-2024**

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## LESSON EXEMPLAR TEMPLATE

### SCIENCE/QUARTER 2/GRADE 5

| <b>I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES</b> |  |
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| <b>A. Content Standards</b>                                      | Learners learn that plants and animals have specialized structures that help them overcome unfavorable conditions.   |
| <b>B. Performance Standards</b>                                  | By the end of the Quarter, learners describe and create models of the body systems whose function is to help humans grow, develop, and reproduce. They use tables to group living things as plants, animals, or microorganisms. They use skills of observation, predicting, measuring, and recording to plans and carry out a simple activity to observe the life cycle of a plant and compare it to the life cycles of animals.                     |
| <b>C. Learning Competencies and Objectives</b>                   | <p><b>The learners:</b></p> <ul style="list-style-type: none"> <li>a) explain how some plants have adapted to unfavorable conditions in the environment, such as lack of rain or floods; and</li> <li>b) use information from secondary sources to describe examples of how some animals have changed to better suit their environment, such as mimicry or camouflage.</li> </ul>  |
| <b>C. Content</b>  | <p><b>Plant Adaptation</b></p> <ul style="list-style-type: none"> <li>- Reaction to stimuli</li> <li>- Plant Adaptations to Specific Unfavorable Conditions (Lack of Rain (drought), Floods, Strong Winds, Poor soil nutrients, and Extreme cold)</li> </ul> <p><b>Animal Adaptation</b></p> <ul style="list-style-type: none"> <li>- Camouflage</li> <li>- Mimicry</li> <li>- Migration (Physical/anatomical and behavioral adaptations)</li> </ul> |
| <b>D. Integration</b>  | Adaptation, its relationship to survival and reproduction  |

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|  | Structure and Function<br>Interdependence |
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**II. LEARNING RESOURCES**

- Abrahams, Peter H., R M.H. McMinn, and Johannes M. Boon. McMinn and Abrahams' clinical atlas of human anatomy. Edinburgh: Elsevier, 2019. Print.

**III. TEACHING AND LEARNING PROCEDURE** **NOTES TO TEACHERS**

|                                      |   |  |
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| <b>A. Activating Prior Knowledge</b> | <p><b>Day 1 – Week 8</b><br/><b>1.Short Review</b></p> <p><b>Plant and Animal Exploration Race Activity</b></p> <p>In this interactive review activity called "Plant and Animal Exploration Race," Grade 5 students will be divided into small teams consisting of 3-4 students each. The objective is to reinforce their understanding of plants and animals, their ability to observe and identify plant and animal parts, grasp environmental factors affecting them, and compare different animals. Each team will be provided with pictures or diagrams of various plants and animals, a whiteboard or chart paper, markers, and a timer. Teams will face a series of challenges. Firstly, they will label the parts of a plant and an animal depicted in the pictures within 2 minutes for each challenge. Secondly, they will answer a question related to environmental factors affecting plants and animals.</p> | <p>Teacher need to prepare in advance to do this Activity-Challenge such as finding appropriate pictures and questions related to effect of environmental factors on plants and animals.</p> <p><b>Challenge 1 - Plant Parts Identification:</b> Show a picture or diagram of a plant (e.g., flower, tree). Each team must label the parts of the plant (e.g.,</p> |
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Lastly, they will compare two different animals by listing similarities and differences. Throughout the activity, the teacher will circulate to offer guidance and assistance as needed. After each challenge, the class will review the answers together, encouraging discussion and clarification. Points will be tallied at the end to determine the winning team. This activity aims to make learning about plants and animals engaging and interactive, fostering teamwork, critical thinking, and knowledge retention among students.

**Analysis of the Activity/Connecting Link:**

The interactive review activity "Plant and Animal Exploration Race" is highly relevant to the present topics of plant and animal adaptation. Through the challenges presented in the activity, students can explore various aspects of plant and animal adaptations, particularly in response to different environmental conditions.

**Plant Adaptation:**

- *Reaction to Stimuli:* During the activity, students identify plant parts, including those involved in reactions to stimuli, such as leaves responding to light (phototropism) or roots growing towards water (hydrotropism). Understanding these responses helps students grasp how plants adapt to their environment.
- *Adaptations to Specific Unfavorable Conditions:* The challenges related to environmental factors provide opportunities for students to consider how plants adapt to unfavorable conditions. For example, they may discuss how certain plants develop deep root systems to withstand drought or how others have adaptations like succulence to store water during dry periods.

**Animal Adaptation:**

- *Camouflage and Mimicry:* While comparing different animals, students may observe examples of camouflage and mimicry. They can discuss

roots, stem, leaves, flowers) on their whiteboard or chart paper. Give them 2 minutes to complete this challenge.

**Challenge 2 - Animal Parts Identification:** Show a picture or diagram of an animal (e.g., fish, bird, mammal). Each team must label the parts of the animal (e.g., head, limbs, tail) on their whiteboard or chart paper. Give them 2 minutes to complete this challenge.

**Challenge 3 - Environmental Factors:** Ask a question related to environmental factors affecting plants and animals (e.g., What environmental factor is necessary for photosynthesis?). The teams must discuss and write down their answers within 2 minutes.

**Challenge 4 - Animal Comparison:** Show pictures of two different animals (e.g., reptile and mammal). Teams must discuss and list similarities and differences between the two animals within 2 minutes.

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|  | <p>how certain animals have evolved physical characteristics or behaviors that allow them to blend into their surroundings (camouflage) or mimic the appearance or behavior of other organisms (mimicry) for protection.</p> <ul style="list-style-type: none"> <li>• <i>Migration:</i> Through discussions about animal comparisons, students may learn about migration as an adaptation. They can explore how animals migrate to more favorable environments during certain times of the year, adapting both physically (such as changes in fur or feathers) and behaviorally (altering their feeding habits or social structure) to survive.</li> </ul> <p>By engaging in the activity, students not only review basic concepts about plants and animals but also deepen their understanding of how these organisms adapt to their surroundings. Through observation, discussion, and critical thinking, students connect the concepts of plant and animal adaptations to real-world scenarios, fostering a more comprehensive understanding of these topics. Additionally, the collaborative nature of the activity encourages peer learning and communication skills, enhancing the overall educational experience.</p> |   |
| <p><b>B. Establishing Lesson Purpose</b></p> | <p><b>1. Lesson Purpose</b><br/>Plant Adaptation</p> <p><b>Survivor: Plant Edition:</b> This short activity focuses on exploring plant adaptation. Students are initially introduced to the concept of adaptation in plants, emphasizing their ability to react to stimuli and adapt to challenging environmental conditions. The class is then divided into small groups to facilitate collaborative learning. Through the "Survivor: Plant Edition" activity, each group is presented with a series of scenarios representing unfavorable conditions such as drought, floods, strong winds, poor soil nutrients, and extreme cold. Their task is to brainstorm and devise adaptation strategies for plants to survive in each scenario. This process encourages creativity and critical thinking as students consider how plants react to stimuli and develop specific adaptations. Following a</p>  | <p>Teacher needs to prepare the materials in advance for this : Activity "Survivor: Plant Edition" such as pictures or illustrations depicting various plants, whiteboard or chart paper, markers, and timer.</p> |

brief planning phase, each group presents their adaptation strategies, fostering discussion and knowledge sharing among peers. The activity concludes with a reflection either oral or written on the importance of adaptation for plant survival, prompting students to apply their newfound understanding to real-world situations. Positive reinforcement is provided to recognize students' participation and creativity throughout the activity, reinforcing the significance of their contributions to science education.

### ***Animal Adaptation***

**Adaptation Expedition: Exploring Animal Survival Strategies:** In this short activity, students are introduced to the concept of adaptation in animals, highlighting strategies such as camouflage, mimicry, and migration. The class is then divided into small groups to facilitate collaborative learning. Through the "Adaptation Expedition" activity, each group embarks on a virtual journey to explore different animal survival strategies. They brainstorm and devise adaptation plans for scenarios involving camouflage, mimicry, and migration, relevant to Philippine environments. Following a brief planning phase, each group presents their adaptation strategies, fostering discussion and knowledge sharing among peers. The activity concludes with a reflection either oral or written on the importance of adaptation for plant survival, prompting students to apply their newfound understanding to real-world situations. Positive reinforcement is provided to recognize students' participation and creativity throughout the activity, reinforcing the significance of their contributions to science education.

## **2. Unlocking Content Area Vocabulary**

**Adaptation Matching Game:** This activity aims to reinforce vocabulary related to plant and animal adaptations, specifically focusing on reaction to stimuli and adaptations to specific unfavorable conditions.

Teacher needs to prepare the materials in advance for this : Activity "Adaptation Expedition: Exploring Animal Survival Strategies" such as pictures or illustrations depicting various animals, whiteboard or chart paper, markers, and timer.

The following materials are needed in this activity: Index cards or small pieces of paper; Marker; Poster board or large paper; Pictures or illustrations of plants and animals demonstrating adaptations; Tape or adhesive

**Step-by-step Instructions:**

*Preparation:*

- Write down vocabulary words and their definitions related to plant and animal adaptations on separate index cards or pieces of paper. For example:
  - Reaction to Stimuli
  - Camouflage -
  - Mimicry
  - Migration
  - Drought
  - Floods
  - Strong Winds
  - Poor Soil Nutrients
  - Extreme Cold

*Reaction to stimuli- any action or response made by an organism to a given action or condition*

*Camouflage – a defense or tactic use by organism to disguise their appearance, usually to blend with their surroundings.*

*Mimicry – the act or art of copying or imitating by one organism to another; the resemblance of two or more organisms that are not closely related.*

*Migration – is the movement of animals from one habitat to another in search for food, better conditions, or reproduction needs.*

*Drought – long period of low rainfall leading to a shortage of water in a certain geographical location*

*Extension Activity (Optional):*

- To deepen understanding, provide additional examples of plant and animal adaptations and ask students to identify which type of adaptation each example represents.
- Alternatively, students can create their own illustrations or diagrams depicting different adaptations and present them to the class.

*Floods – an overflowing of large amount of water in beyond its normal capacity over what is normally dry land*

*Strong winds – can cause damage to buildings, roofs are blown off, tree branches are broken or uprooted.*

*Poor soil nutrients – condition that happens when important substances in soil are removed due to soil erosion, runoff, leaching and burning of crop residues.*

*Extreme cold – happens when temperatures are lower than average to the point it cause danger to people, animals and plants by freeing or being frozen or frigid.*

*Creating the Game Board:*

- Tape the poster board or large paper onto a wall or a flat surface where all students can easily see it.
- Arrange the vocabulary words randomly on the board.

*Matching Game:*

- Divide the class into small groups or pairs.
- Explain to the students that they need to match each vocabulary word with its correction definition or example
- Encourage students to discuss and collaborate within their groups to determine the correct matches.
- Allow sufficient time for the students to complete the matching activity.

*Review and Discussion:*

- Once all groups have finished, review the matches together as a class.
- Discuss each adaptation in detail, providing examples from both plants and animals.
- Encourage students to ask questions and share their observations about how these adaptations help organisms survive in their environments.

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|   | <ul style="list-style-type: none"> <li>• Emphasize the importance of adaptation for the survival of species in various conditions.</li> </ul>   |   |
| <p><b>C. Developing and Deepening Understanding</b></p> | <p><b>Day 2 – Week 8</b></p> <p><b>SUB-TOPIC 1: Plant Adaptation</b></p> <p><b>1. Explicitation</b></p> <p><b>Plant Adaptation Scavenger Hunt:</b></p> <p>The objective of this activity is to immerse learners in an exploration of plant adaptation through a scavenger hunt. The activity begins with an introduction to the concept of plant adaptation, highlighting the various strategies plants employ to survive in different environments. Students are divided into small groups and equipped with clipboards, paper, and pens or pencils. Optionally, pictures or descriptions of plant adaptations may be provided for reference. Each group is assigned specific adaptations or categories to focus on, such as drought tolerance, flood resistance, or wind resilience. Then, the scavenger hunt commences with students exploring the school grounds or nearby outdoor area for plants exhibiting the assigned adaptations. They document their findings through notes, sketches, or photos. After the hunt, groups gather for a discussion where they share their observations and insights. They discuss the adaptations they observed and speculate on how each adaptation aids the plant's survival. Following the discussion, a brief reflection session allows students to contemplate what they learned and share their thoughts on the most intriguing adaptations they encountered. The activity concludes with a summary emphasizing the importance of observation and exploration in understanding plant adaptation.</p> <p><b>2. Worked Example</b></p> <p>Reaction to stimuli:</p> | <p>Alternative: Use secondary sources such as online pictures or videos of plants and animals that depict certain type of adaptation</p> <p>Lead a guided discussion about each adaptation type in the explicitation activity titled “Animal Adaptation Exploration”:</p> <ul style="list-style-type: none"> <li>• Camouflage: Ask students to identify animals in the images or videos that use camouflage to blend into their surroundings. Discuss how camouflage helps animals evade predators or hide from prey.</li> <li>• Mimicry: Show examples of animals that mimic other species for protection or deception. Discuss the benefits of mimicry and the</li> </ul> |

- *Example:* The *Mimosa pudica*, commonly known as the "makahiya" in the Philippines, demonstrates a fascinating reaction to stimuli. When touched or disturbed, its leaves fold inward and droop, resembling a wilting plant. This immediate response is an adaptive mechanism to protect itself from potential threats, such as herbivores or strong winds. By quickly folding its leaves, the plant reduces its surface area, minimizing damage and conserving water.

**Plant Adaptations to Specific Unfavorable Conditions**

- *Lack of Rain (Drought):* The Agoho tree, commonly found in coastal areas of the Philippines, exhibits adaptations to withstand drought conditions. Its needle-like leaves help reduce water loss through transpiration, while its deep root system allows it to access groundwater even during extended dry periods. Additionally, the tree's ability to shed lower branches conserves energy and resources during droughts.
- *Floods:* The Bakawan tree, also known as mangroves, thrive in coastal regions prone to flooding. These trees have specialized aerial roots called pneumatophores that emerge from the soil and extend above the water level. Pneumatophores facilitate gas exchange, allowing the roots to obtain oxygen even in waterlogged conditions. Additionally, mangrove leaves excrete excess salt, enabling the plant to survive in brackish water environments.
- *Strong Winds:* The Bamboo is a common sight in the Philippines and is well-adapted to withstand strong winds. Its flexible and hollow culms (stems) allow them to bend without breaking during typhoons and tropical storms. Bamboo's extensive rhizome system helps stabilize soil and prevent erosion, enhancing its resilience to strong winds.
- *Poor Soil Nutrients:* The Ipil-ipil tree demonstrates adaptations to thrive in nutrient-poor soils. It forms symbiotic relationships with

different forms it can take.

- *Migration:* Discuss the concept of migration and how animals physically or behaviorally adapt for long-distance travel. Explore examples of animals that migrate and the reasons behind their migrations.

It is best if the teacher could provide pictures or videos of the mentioned trees and the unfavorable conditions described or presented in Activity No.1: "Reaction to Stimuli: *Mimosa pudica* Experiment" and Activity No.2: "Plant Adaptations to Specific Unfavorable Conditions: Survival Strategies".

For a more challenging experiment, students can

nitrogen-fixing bacteria in its root nodules, enabling it to convert atmospheric nitrogen into a usable form. Additionally, the tree's ability to shed its leaves and recycle nutrients contributes to its resilience in nutrient-depleted environments.

- *Extreme Cold:* The Benguet Pine, found in the highlands of the Philippines, exhibits adaptations to survive extreme cold temperatures. Its needle-like leaves minimize water loss through transpiration, while its conical shape helps shed snow and ice, reducing the risk of branch breakage. Additionally, the tree's thick bark provides insulation against freezing temperatures, protecting the sensitive inner tissues from damage.

**Day 2 – Week 8**

**3. Lesson Activity**

- For the first activity focusing on plant reactions to stimuli, particularly the *Mimosa pudica* experiment, the teacher will guide students through the process of observing and understanding how plants react to touch. Beginning with an introduction to plant responses to stimuli, the teacher will explain the unique characteristics of the *Mimosa pudica* plant and its ability to fold its leaves when touched. After distributing *Mimosa pudica* plants to each student or group, the teacher will ensure that each plant is properly prepared in soil and adequately watered. Throughout the experiment, the teacher will instruct students to gently touch the leaves of their plants using a small stick or brush, prompting them to observe and record the plant's response, including the time it takes for the leaves to fold. Following the experiment, the teacher will facilitate a discussion on the observed reactions, guiding students to explain how the plant's response to touch may serve as a defense mechanism against herbivores.
- **Guide the students to perform Activity No.1: "Reaction to Stimuli: *Mimosa pudica* Experiment" of the Student Worksheet 1).**

explore how different intensities of touch affect the response of *Mimosa pudica* plants.

- For the second activity focusing on plant adaptations to specific unfavorable conditions, the teacher will guide students through an exploration of various plant adaptations in the Philippines. Beginning with an introduction to plant adaptations and common unfavorable conditions in the Philippines, such as drought, floods, strong winds, poor soil nutrients, and extreme cold, the teacher will facilitate group discussions. Each group will be assigned one specific unfavorable condition and provided with pictures or diagrams of plants adapted to that condition. The teacher will instruct students to analyze the adaptations of the plants and discuss how these adaptations help them survive in their respective environments. Each group will then present their findings to the class, using chart paper or the whiteboard. Finally, the teacher will lead a class discussion on the different plant adaptations observed, encouraging students to compare and contrast adaptations to different environmental challenges and reflect on their significance in maintaining plant diversity and ecosystem resilience in the Philippines.
- **Guide the students to perform Activity No.2: "Plant Adaptations to Specific Unfavorable Conditions: Survival Strategies" in the Student Worksheet 1).**

**Day 3 – Week 8**

**SUB-TOPIC 2: ANIMAL ADAPTATION**

**1. Explicitation**

**Animal Adaptation Exploration:** This activity begins with an introduction to the concept of animal adaptation, highlighting how animals adapt to their environments to survive and thrive. Students are then shown visual examples of camouflage, mimicry, and migration in animals, prompting observation and discussion about the adaptations observed. Following this, a guided discussion unfolds, delving into each

adaptation type: camouflage, mimicry, and migration. Students explore the benefits and mechanisms behind each adaptation, drawing insights from the examples provided. Subsequently, the class is divided into small groups, with each group assigned one adaptation type to brainstorm examples of animals exhibiting that adaptation. Through collaborative discussion and brainstorming, students share their ideas and insights about how each adaptation type aids animals in survival. The activity culminates with group presentations, where students showcase their examples and explanations to the class, reinforcing their understanding of animal adaptations. Finally, the activity concludes with a brief summary, emphasizing the significance of understanding animal adaptations in the context of survival and environmental interactions.

**Day 3 – Week 8**

**2. Worked Example**

**Animal Adaptation:**

- **Camouflage:** The Philippine Tarsier, found in forests across the Philippines, exhibits excellent camouflage abilities. Its grayish-brown fur matches the color of tree bark, allowing it to blend seamlessly into its surroundings and evade detection by predators or prey. Additionally, its large eyes provide enhanced night vision, aiding in nocturnal camouflage.
- **Mimicry:** The Philippine Cobra is known for its mimicry of the False Coral Snake, which possesses similar bright red and black banding. This mimicry serves as a warning signal to potential predators, deterring them from attacking due to the mistaken belief that the cobra is venomous. In reality, the Philippine Cobra is highly venomous and uses mimicry for defense.
- **Migration (Physical/anatomical and behavioral adaptations):** The Philippine Eagle, also known as the Monkey-eating Eagle, showcases both physical and behavioral adaptations related to

migration. Physically, its large wingspan allows it to soar long distances across the Philippine archipelago in search of prey. Behaviorally, Philippine Eagles exhibit seasonal migration patterns driven by food availability, moving between lowland forests and mountainous regions to follow prey populations and nesting sites.

**Day 3 and Day 4 – Week 8**

**3. Lesson Activity**

- After a brief introduction to camouflage, where students learn about its significance as an adaptation for survival, they will venture outdoors to observe animals in their natural habitats. Armed with notebooks or worksheets, students will carefully observe their surroundings, identifying examples of camouflage in insects, birds, reptiles, and mammals. Following the outdoor exploration, a group discussion will be facilitated, allowing students to share their observations and reflect on the effectiveness of camouflage in helping animals avoid predators or ambush prey.
- **Guide the students to perform the activity titled "Camouflage Exploration: Hide and Seek in Nature" (Activity 1, Student Worksheet 2).**
- In the second activity, students will learn about mimicry as an adaptation where one species resembles another for survival purposes. Divided into groups, students will create short role-plays depicting scenarios where mimicry occurs, showcasing its adaptive significance in the animal kingdom. Following the role-plays, students will engage in further observation and analysis, identifying examples of mimicry in nature and discussing its benefits for mimics in terms of protection from predators or gaining advantages in predation.
- **Guide the students to perform the activity titled "Mimicry: Role-Play and Observation" (Activity 2, Student Worksheet 2).**

|  | <p><b>Day 4 – Week 8</b></p> <ul style="list-style-type: none"> <li>• After an introduction to migration and its significance for animals, students will be assigned migratory animal species to research. Using maps, pictures, and illustrations, students will gather information on migration patterns, routes, and reasons behind the migration of their assigned species. Through presentations to the class, students will share their findings, discussing the importance of migration for animals in terms of food availability, breeding opportunities, and responding to climate changes.</li> <li>• <b>Guide the students to perform the activity titled "Migration: Journey of Survival" (Activity 3, Student Worksheet 2).</b></li> </ul>  |                    |             |          |                     |  |  |  |  |  |  |  |  |                          |  |  |  |
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| <p><b>D. Making Generalizations</b></p>              | <p><b>Day 4 – Week 8</b><br/><b>Learners' Takeaways</b></p> <ul style="list-style-type: none"> <li>• In this summary activity, students will consolidate their understanding of plant and animal adaptations through a graphic organizer. After reviewing the main topics covered in the unit, including reaction to stimuli, specific adaptations to unfavorable conditions, and types of animal adaptations such as camouflage, mimicry, and migration, students will complete a graphic organizer worksheet.</li> <li>• Students will fill in the organizer below with information about various adaptations, including examples and key characteristics for each type.</li> </ul> <p><b>Plant and Animal Adaptations Graphic Organizer</b></p> <table border="1" data-bbox="510 1193 1597 1401"> <thead> <tr> <th>Type of Adaptation</th> <th>Description</th> <th>Examples</th> </tr> </thead> <tbody> <tr> <td>Reaction to Stimuli</td> <td></td> <td></td> </tr> <tr> <td></td> <td></td> <td></td> </tr> <tr> <td>Plant Adaptations to Specific Unfavorable Conditions</td> <td></td> <td></td> </tr> <tr> <td>- Lack of Rain (Drought)</td> <td></td> <td></td> </tr> </tbody> </table> | Type of Adaptation | Description | Examples | Reaction to Stimuli |  |  |  |  |  | Plant Adaptations to Specific Unfavorable Conditions |  |  | - Lack of Rain (Drought) |  |  |  |
| Type of Adaptation                                   | Description  | Examples           |             |          |                     |  |  |  |  |  |  |  |  |                          |  |  |  |
| Reaction to Stimuli                                  |  |                    |             |          |                     |  |  |  |  |  |  |  |  |                          |  |  |  |
|  |  |                    |             |          |                     |  |  |  |  |  |  |  |  |                          |  |  |  |
| Plant Adaptations to Specific Unfavorable Conditions |  |                    |             |          |                     |  |  |  |  |  |  |  |  |                          |  |  |  |
| - Lack of Rain (Drought)                             |  |                    |             |          |                     |  |  |  |  |  |  |  |  |                          |  |  |  |

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| - Floods              |  |  |
| - Strong Winds        |  |  |
| - Poor Soil Nutrients |  |  |
| - Extreme Cold        |  |  |
| Animal Adaptations    |  |  |
| - Camouflage          |  |  |
| - Mimicry             |  |  |
| - Migration           |  |  |

- Utilizing different colors or symbols, students will visually represent different types of adaptations for clarity and comprehension.
- Following the completion of the graphic organizer, students will engage in small group discussions to share their findings and examples of plant and animal adaptations.
- During presentations to the class, facilitated by the teacher, students will have the opportunity to ask questions and provide feedback, fostering collaborative learning and deeper comprehension of the topic.

**1. Reflection on Learning**

- Conclude the activity with a brief reflection period where students can individually write or discuss what they have learned about plant and animal adaptations.
- Encourage students to reflect on how adaptations help organisms survive and thrive in their environments.

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| <p><b>A. Evaluating Learning</b></p> | <p><b>1. Multiple-Choice Questions</b></p> <p><b>Direction:</b> Encircle the letter of the best answer.</p> <ol style="list-style-type: none"> <li>1. What is an example of a plant's reaction to stimuli?           <ol style="list-style-type: none"> <li>a) Growing towards sunlight</li> <li>b) Absorbing water through roots</li> <li>c) Developing deep roots</li> <li>d) Storing excess water in leaves</li> </ol> </li> <li>2. How do plants adapt to withstand drought conditions?           <ol style="list-style-type: none"> <li>a) Growing taller</li> <li>b) Developing thorns</li> <li>c) Storing water in roots or stems</li> <li>d) Increasing leaf size</li> </ol> </li> <li>3. Which adaptation helps plants survive floods?           <ol style="list-style-type: none"> <li>a) Developing a deep root system</li> <li>b) Growing spines or thorns</li> <li>c) Storing water in leaves</li> <li>d) Growing tall and slender</li> </ol> </li> <li>4. What adaptation is useful for plants in windy areas?           <ol style="list-style-type: none"> <li>a) Growing broad leaves</li> <li>b) Developing a fibrous root system</li> </ol> </li> </ol> | <p>Answers:</p> <ol style="list-style-type: none"> <li>1. a)</li> <li>2. c)</li> <li>3. a)</li> <li>4. c)</li> <li>5. c)</li> <li>6. c)</li> <li>7. b)</li> <li>8. c)</li> <li>9. a)</li> <li>10. b)</li> <li>11. a)</li> <li>12. a)</li> <li>13. b)</li> <li>14. b)</li> <li>15. a)</li> <li>16. a)</li> <li>17. c)</li> <li>18. b)</li> <li>19. b)</li> <li>20. b)</li> </ol> |
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|  | <ul style="list-style-type: none"><li>c) Growing low to the ground</li><li>d) Growing deep taproots</li></ul> <p>5. How do plants adapt to poor soil nutrients?</p> <ul style="list-style-type: none"><li>a) Developing a thick waxy cuticle on leaves</li><li>b) Growing larger leaves</li><li>c) Forming symbiotic relationships with fungi</li><li>d) Storing excess water in roots</li></ul> <p>6. What adaptation helps plants survive extreme cold?</p> <ul style="list-style-type: none"><li>a) Shedding leaves</li><li>b) Growing spines or thorns</li><li>c) Developing a thick layer of insulation</li><li>d) Increasing transpiration rate</li></ul> <p>7. What is an example of a plant's reaction to a touch stimulus?</p> <ul style="list-style-type: none"><li>a) Opening of flower buds during daylight</li><li>b) Closure of leaves when touched</li><li>c) Increasing water absorption during rain</li><li>d) Drooping of leaves in response to sunlight</li></ul> <p>8. How do plants adapt to lack of rain (drought)?</p> <ul style="list-style-type: none"><li>a) Growing broad leaves</li><li>b) Developing shallow roots</li><li>c) Storing water in succulent stems</li></ul> |  |
|--|---|--|

d) Increasing transpiration rate

9. Which adaptation is beneficial for plants in flood-prone areas?

a) Developing a shallow root system

b) Growing tall and slender

c) Increasing leaf size

d) Forming a thick bark layer

10. How do plants adapt to strong winds?

a) Growing tall and slender

b) Developing a fibrous root system

c) Increasing leaf size

d) Storing water in leaves

11. What is an example of animal camouflage?

a) A chameleon changing colors to match its surroundings

b) A lion roaring loudly to scare predators

c) A rabbit digging burrows to hide from predators

d) A bird migrating to a warmer climate

12. Which of the following is an example of mimicry?

a) A butterfly with eye-like spots on its wings to scare predators

b) A frog camouflaging itself on a tree trunk

c) A polar bear growing thick fur to stay warm in cold climates

d) A snake using its venom to immobilize prey

13. What is a physical/anatomical adaptation for migration?

- a) Developing a hibernation period during winter
- b) Growing wings for flying long distances
- c) Forming social groups for protection
- d) Changing fur color to blend with the environment

14. How do animals behaviorally adapt for migration?

- a) Developing sharp claws for climbing trees
- b) Changing feeding habits during different seasons
- c) Growing a thick layer of blubber for insulation
- d) Having a thick fur coat to withstand cold temperatures

15. Which of the following is an example of animal camouflage?

- a) A polar bear having white fur to blend with snow
- b) A tiger roaring loudly to mark its territory
- c) A frog croaking loudly to attract a mate
- d) A squirrel gathering nuts for winter storage

16. What is an example of animal mimicry?

- a) A harmless king snake mimicking the coloration of a venomous coral snake
- b) A cheetah blending into tall grasses to stalk its prey
- c) A hummingbird using its long beak to feed on nectar
- d) A crocodile using its powerful jaws to catch fish

17. Which physical/anatomical adaptation aids in animal migration?

- a) Developing a strong sense of smell for finding food
- b) Growing fins for swimming in water
- c) Having a streamlined body shape for efficient movement
- d) Developing sharp claws for digging burrows

18. How do animals behaviorally adapt for migration?

- a) Changing coloration to match the environment
- b) Following a specific migration route based on celestial cues
- c) Developing a thick fur coat for insulation
- d) Forming social groups for protection

19. What is a physical/anatomical adaptation for camouflage?

- a) Developing horns for defense against predators
- b) Changing fur color to match the seasons
- c) Growing sharp teeth for catching prey
- d) Having a transparent body for blending into the water

20. How do animals behaviorally adapt for mimicry?

- a) Forming large herds for protection against predators
- b) Mimicking the behavior of toxic species to deter predators
- c) Developing sharp claws for climbing trees
- d) Changing mating calls to attract mates

|                                |  |                            |                             |  |
|--------------------------------|--|----------------------------|-----------------------------|--|
| <b>B. Teacher's Remarks</b>    | <i>Note observations on any of the following areas:</i>  | <b>Effective Practices</b> | <b>Problems Encountered</b> |  |
|                                | <b>strategies explored</b>   |                            |                             |  |
|                                | <b>materials used</b>  |                            |                             |  |
|                                | <b>learner engagement/ interaction</b>   |                            |                             |  |
|                                | <b>others</b>  |                            |                             |  |
| <b>C. Teacher's Reflection</b> | <p><i>Direction: Answer briefly the following questions.</i></p> <ol style="list-style-type: none"> <li>1. <i>What principles and beliefs informed my lesson?</i></li> <li>2. <i>Why did I teach the lesson the way I did?</i></li> <li>3. <i>What roles did my students play in my lesson?</i></li> <li>4. <i>What did my students learn? How did they learn?</i></li> <li>5. <i>What could I have done differently?</i></li> <li>6. <i>What can I explore in the next lesson?</i></li> </ol> |                            |                             |  |

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