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DepED
DEPARTMENT OF EDUCATION

Lesson Exemplar for Science

Quarter 2
Lesson
4

Lesson Exemplar for Science 4
Quarter 2: Lesson 4 (Week 4)
S.Y. 2024-2025

Development Team

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SCIENCE (BIOLOGY) / QUARTER 2 / GRADE 4

I. CURRICULUM CONTENT, STANDARDS, AND LESSON COMPETENCIES	
A. Content Standards	Animals and plants live in habitats that meet their basic needs.
B. Performance Standards	By the end of the Quarter, learners identify that plants and animals have systems whose function is to keep them alive. They observe, describe, and create representations to show how living things interact with their habitat, survive, and reproduce in specific environments. They use flowcharts to show the feeding relationship among different organisms within a given environment.
C. Learning Competencies and Objectives	***Learning Competency*** The learners use a drawing or diagram to classify some Philippine animals and plants, based on their habitat: some live on land (terrestrial), live in water (aquatic) or fly in the air (aerial)**.**
C. Content	Plants and animals and their habitats. a. Terrestrial Habitat b. Aquatic Habitat, and c. Aerial Habitat
D. Integration	• SDG#6 Clean Water and Sanitation • SDG#11 Sustainable Cities and Communities • SDG #14 Life Below Water • SDG #15 Life on Land • Environmental Conservation/Preservation • Pollution • Philippine Endangered species • Philippine Flora and Fauna

II. LEARNING RESOURCES
• Delos Reyes Jr, R. L., Balabat, F. P., Quicho, K. L., & Rex Book Store. (2023). Science Links: Worktext for Scientific and Technological Literacy (Revised Edition). Rex Book Store. pp. 194-201. • Department of Education. (2019). National Science Textbook, Grade 4, First Edition (pp. 133-1146). Papua New Guinea. • Department of Education. (2019). Science Teacher Manual, Grade 4, First Edition (pp. 122-152). Papua New Guinea. • Department of Education. (Year). MATATAG Curriculum in Science. DepEd Complex, Meralco Avenue, Pasig City, Philippines. • Exploring Habitats." (n.d.). Retrieved October 16, 2023, from https://letstalkscience.ca/educational-resources/lessons/exploring-habitats • Republic of the Philippines. (2013). Enhanced Basic Education Act of 2013. Retrieved from https://www.officialgazette.gov.ph/2013/05/15/republic-act-no-10533/ • Terrestrial Habitats." (n.d.). Retrieved October 18, 2023, from https://www.vedantu.com/biology/terrestrial-habitat

III. TEACHING AND LEARNING PROCEDURE		**NOTES TO TEACHERS**
A. Activating Prior Knowledge	**Day 1** **1.Short Review** Begin by discussing with the students that every living organism has basic needs such as food, water, air, sunlight, soil, clothing, and shelter to protect them from dangers and for survival in their specific location or environment. You may use the guide questions below to check learner's understanding about the basic needs of plants and animals: • What are the basic needs for survival of all living organisms? • Why is it important to understand where different plants and animals find their survival needs? • Can you give examples of living organisms and their specific survival needs? • How do these needs vary among different plants and animals in different places?	

2. Establishing Lesson Purpose	**Day 1** **1.Lesson Purpose** Begin by describing to learners that the day's lesson will be about classifying and/or categorizing different organisms based on places where they live. You may spark learners' interest about the topic by asking the following questions: • What are your favorite animals? What is the most amazing plant you know? • Where do they live? Where can you find them? • Why do they live there? Why does that plant grow in that area? • Will that animal be able to live in some other area or location? Will that plant grow in some other area or location? • How can we group the animals and plants you all mentioned based on where they live? • Why do we need to classify plants and animals based on the place where they live? Teacher may ask this higher order thinking questions: • Why is it important for scientists and environmentalists to understand and classify different types of habitats? • How might knowledge of these habitat-related terms help us protect and conserve ecosystems and the species that live in them? **1. Unlocking Content Area Vocabulary** • Provide students with a list of related words such as "home", "abode", "territory", "locale", "environment", "ecosystem", "terrain" , "surroundings", and "vicinity". • Encourage the students to find and write down simplified explanations or synonyms for these words. • Write the terms: "Habitat," "Terrestrial," "Aquatic," "Aerial" and provide the definitions of these terms in scrambled order (mixed-up).	

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- The physical space where an organism lives is called its **habitat**. An organism can only live in a habitat where its basic needs are met. It includes sunlight, air, water, food, and ideal temperature.

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3. Developing and Deepening Understanding

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SUB-TOPIC 1: TERRESTRIAL HABITAT (Day 1and 2)

1. Explicitation

- Divide the students into small groups.
- Distribute the pictures of plants and animals listed in the table below.
- Ensure that each student receives one picture.

tamaraw	water lily	crocodile	eagle	banana tree
corn	horse	green moss	orchids	grass
bird	mango tree	cat	bamboo	turtle
seaweed	bromeliads	lotus	milkfish	tarsier

- Create a chart on the board or a large sheet of paper with three columns: "Land," "Water," and "Air."

Land	Water	Air

- Explain that the students need to decide whether the plant or animal in their picture lives on land, in the water, or in the air.
- Have each group discuss their choices and reasons for categorizing the plants and animals as they did.
- Summarize the activity by reviewing the chart and discussing the distribution of plants and animals in different habitats. Emphasize that understanding where organisms live helps us learn more about their adaptations and survival needs. Highlight any common features or adaptations discussed during the activity.

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2. Worked Example

- Divide the blackboard into three labeled sections:

Plants and Animals				**Terrestrial Plants and Animals”**	**Non-Terrestrial Plants and Animals."**
Bamboo Alligator	Jelly Fish	Polar Bear	Cactus		
Deer	Ostrich	Grass	Camel		
Piranha	Shark	Clams	Octopus		
Coral	Kelp	Sea Anemone	Phytoplankton		
Lichen	Monkey	Horse	Snake		
Shrimp	Duck	Frog	Water Lily		

- Paste printed pictures of organisms listed in the table on the "Plants and Animals" side of the board.
- Ask students to pick a picture from the "Plants and Animals" side of the board and post it in the appropriate column where it belongs.
- Encourage the students to discuss and explain their choices.
- This activity not only helps students understand terrestrial habitats but also encourages critical thinking and discussions about the characteristics and adaptations of plants and animals in different environments.

3. Lesson Activity

- Guide students to perform **Activity 1: Habitat Hunt and Animal Match** in the Worksheet to help them understand the concept of terrestrial habitats and their characteristics by exploring different plant and animal species found in these habitats.
- Divide the class into small groups of 4-5 students each. Assign each group one of the terrestrial habitats (forests, grasslands, deserts, or mountains).

	• Provide each group with a large poster or drawing of their assigned habitat and a set of pictures of animals and plants commonly found in terrestrial habitats. Ensure that the pictures are shuffled so that each group receives a mix of species. • Ask each group to present their classification to the class. During their presentation, students should explain why they made those choices. They can use markers and labels to identify and describe each species. Encourage students to engage with their peers and explain their reasoning clearly. • This activity engages students in critical thinking, classification, and collaborative learning while reinforcing their understanding of terrestrial habitats and the species that inhabit them. • You may ask the following questions to stimulate critical thinking about terrestrial habitats: • "What patterns or characteristics did you notice among terrestrial plants and animals?" • "Can you identify any specific adaptations that help these organisms live on land?" • "Why do you think terrestrial habitats are important for these plants and animals?" • Why is it important to study and understand terrestrial habitats? • How can we identify whether a plant or animal lives in a terrestrial habitat or not? • What are some common characteristics or features that terrestrial plants and animals might have in order to survive on land? • Can you name any specific adaptations that help certain organisms thrive in terrestrial habitats? • As you sort the pictures, what criteria or observations are you using to determine if an organism is terrestrial? • Are there any surprises or interesting discoveries you've made while classifying the pictures? • How do terrestrial habitats benefit the overall ecosystem and biodiversity?	

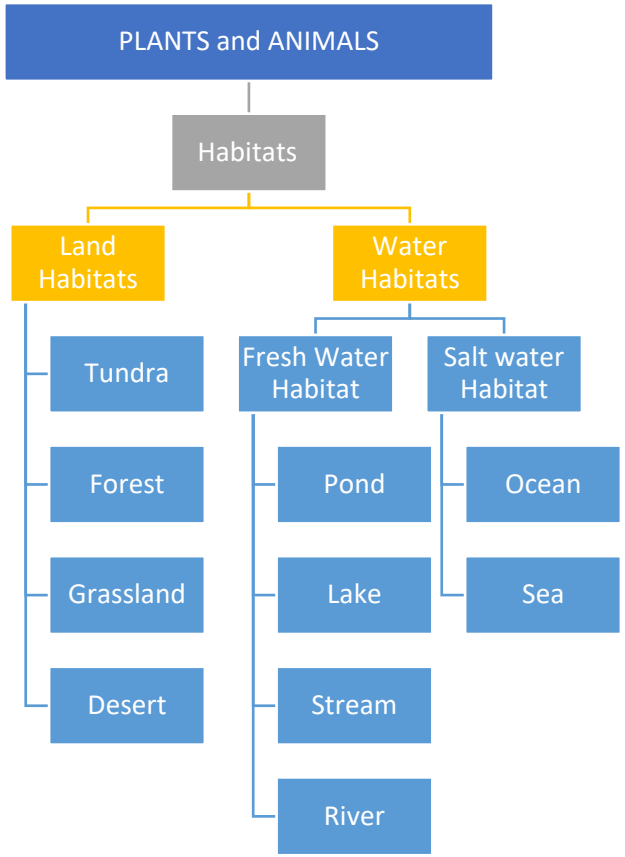
	SUB-TOPIC 2: AQUATIC HABITAT (Day 2 and 3) **1. Explicitation** • Begin by discussing with the students the concept of aquatic habitats. Explain that aquatic habitats are places in water where different plants and animals live. Briefly introduce the four main aquatic habitats: oceans, rivers, lakes, and ponds. You can use images or drawings to show examples of these habitats. • Guide the students to perform **Lesson 2 Activity 1: Aquatic Habitat Adventure** in the Worksheet**.** • Provide a brief description of each aquatic habitat to the entire class, emphasizing the key characteristics of each one. For example, mention that oceans are vast bodies of saltwater, while rivers are flowing bodies of freshwater. • Each group presents their classification to the class. They should place the pictures on the corresponding habitat poster (large posters or drawings) and explain why they made those choices. Use markers and labels to identify and describe each species. • After each group presentation, engage in a short class discussion about the choices made by each group. Compare and contrast the reasoning behind their decisions. Encourage students to ask questions or share interesting facts they've learned. • You can adjust the time allotted for group presentations and class discussion based on the number of groups and the depth of discussion desired. **2.Worked Example** • Begin by discussing the concept of aquatic habitats, highlighting the two main types: freshwater and marine. Explain that students will participate in a fun scavenger hunt to explore these habitats and understand the characteristics and subtypes of aquatic habitats. • Distribute the aquatic habitat pictures to students, one per student or pair. These pictures should represent different aquatic habitats and their subtypes. Each picture should be labeled with a number. • Provide students with a scavenger hunt checklist that includes the following tasks: Task 1: Identify whether your picture represents a freshwater or marine habitat. Task 2: If it's freshwater, determine if it's a river, lake, wetland, or	

	spring/oasis. If it's marine, identify if it's an ocean, coral reef, estuary, open ocean, or intertidal zone. Task 3: Based on your habitat type and subtype, draw or write down three different animals or plants that you think could live there. • Gather the students and have a group discussion. Each student or pair presents their classification, sharing the type of habitat they identified and the animals or plants they think inhabit it. As a class, discuss the differences and unique features of the various aquatic habitats. • Summarize the key points about aquatic habitats and their subtypes. Emphasize the diversity of life in these habitats. Conclude by highlighting the importance of protecting and preserving these unique environments. **3. Lesson Activity** • Begin by telling that today, they will learn more in detail about two types of aquatic habitats: freshwater and marine habitats and the related UNESCO's Sustainable Development Goals (SDGs) #14 and #6. • Show the world map or globe and ask the following: a) Can you tell which is bigger, the land or the water? Why do you think that is? b) What do you think makes freshwater different from the salty water in the seas and oceans? c) If you were a fish, where would you prefer to live: in a freshwater lake or the salty ocean? Why? d) If you have chosen a dolphin, where on the map would you put your label? What about if you chose a frog? • Show on the map where these types of habitats can be found (e.g., point to a river for freshwater and the ocean for marine). • Ask each student to choose an aquatic plant or animal they like. On the label, students should write the name of their chosen plant or animal. Have them place the labels on the world map in the appropriate habitat (freshwater or marine). • Revisit the map and look at the labels placed by students. Discuss which habitat has more labels and ask why.	

	• Introduce the idea that we need to protect these habitats to keep the plants and animals safe. • The teacher will facilitate the students to understand the characteristics of freshwater and marine habitats while integrating the concept of Sustainable Development Goals (SDGs). • Briefly introduce SDG 6 (Clean Water and Sanitation) and SDG 14 (Life Below Water). • Ask: How do you think keeping our water clean helps the whole world, and what does that have to do with the goals we talked about, like SDG 6 and SDG 14? • "Why is it important for everyone to have clean water?" and "What happens to fish if the water they live in gets dirty?" • Explain that understanding aquatic habitats is important for achieving these goals. Show visuals of SDGs 6 and 14 (if available). **SDG 14: Life Below Water:** This goal focuses on conserving and sustainably using the oceans, seas, and marine resources for sustainable development. Understanding marine habitats is crucial for this SDG. **SDG 6: Clean Water and Sanitation:** Freshwater habitats are essential for clean water sources. Protecting and conserving these habitats is crucial for ensuring clean and safe water for all. By learning about and caring for aquatic habitats, we can help create a better, more sustainable world for everyone. Feel free to adapt this discussion to your classroom needs. **SUB-TOPIC 3: AERIAL HABITAT (Day 3 and 4- Week 4)** **1. Explicitation** • Begin by discussing the concept of aerial habitats, emphasizing that it includes the space above the Earth's surface. Explain the objective of the scavenger hunt: to find and learn about different organisms that live in aerial habitats.	

	• Guide the students to perform **Lesson 3 Activity 1 : Sky High Scavenger Hunt** in the Worksheet. • Share the list of clues or riddles, each leading to a specific organism in an aerial habitat. Show images or illustrations of the organisms to help students identify them. Ensure the clues or riddles are age-appropriate and suited to the students' understanding. • Divide the students into pairs or small groups. Give each group the list of clues or riddles and the images/illustrations. Tell the students to find the organisms described in the clues around the classroom or in provided books and materials. They should match the organisms with the corresponding images. • Bring the students back together as a class and discuss the scavenger hunt results. Ask each group to share their findings and discuss the organisms they discovered. Emphasize the unique features of each aerial habitat organism. • Summarize the importance of understanding aerial habitats and the organisms that call them home. • This interactive and hands-on activity allows students to grasp the concept of aerial habitats by bringing it to life in the classroom. It engages their creativity, observation skills, and understanding of how different organisms adapt to life in the sky • Consider awarding small prizes or stickers to the groups that successfully identified the most organisms. **2. Worked Example** • Briefly recap the previous "Sky High Scavenger Hunt" and the key concepts related to aerial habitats. • Explain the objective of this activity: to identify and correct errors made during the previous activity and reinforce learning about aerial habitats. • Present the list of errors or misconceptions made by students during the scavenger hunt.	**Answer key:** 1. Butterfly 2. Eagle 3. Bee 4. Monkey (specifically, a type of monkey that swings from trees) 5. Bat 6. Chameleon (or flying lizard) 7. Songbird (such as a nightingale or canary) 8. Hawk .

	• Divide the class into small groups. Provide each group with error/s from the list and tell the groups to discuss the error, find the correct information, and prepare a brief explanation. • Have each group present their assigned error, the corrected information, and an explanation to the class. Encourage discussions and questions after each presentation. • Summarize the corrected information and clarify any remaining doubts or questions. Reinforce the key ideas about aerial habitats, including their characteristics and the organisms that inhabit them. Encourage students to ask questions and seek clarification when learning about new topics. **3. Lesson Activity** • Explain the objective of this activity : To deepen the understanding of aerial habitats and their importance, while integrating the Sustainable Development Goal (SDG) 15: Life on Land and SDG 13: Climate Action. • Provide each student with a list of different aerial habitat creatures (e.g., eagles, butterflies, pterosaurs). Assign each student one aerial creature from the list. • Tell students to draw and write about their assigned creature, focusing on aspects like its habitat, diet, adaptations, and its role in the ecosystem. • Ask students to share their drawings and information about their assigned creature with the class. Encourage them to discuss the similarities and differences among the aerial creatures. • Relate the activity to SDG 15: Life on Land and SDG 13: Climate Action by discussing how protecting aerial habitats and the creatures within them contributes to these goals. Explain the importance of conserving ecosystems to combat climate change and preserve biodiversity. • Give students the opportunity to briefly present their artwork or posters to the class. Encourage them to share their reflections and what they've learned about the significance of aerial habitats and the related SDGs.	

4. Making Generalizations	**Day 4** **Learners' Takeaways** Encourage students to actively participate in completing the concept map by providing guiding questions that lead to the desired answers. This will help them engage more effectively with the material and construct a comprehensive concept map. **Concept Map for Habitat**  	

	1. Reflection on Learning Reflection on Learning Habitat guide concepts: 1. New Knowledge: Think about what you've learned about habitats for plants and animals, like where they live and how they survive. 2. Caring for Earth: Consider how you now value taking care of our planet and the plants and animals that live here. 3. Self-Check and Goals: Look at what you know well and what you'd like to learn more about. Set goals to guide your future learning. 4. Amazing Discoveries: Remember the cool things you've found out about habitats and how they work. 5. Growing Up: Think about how you've become a better learner and nature protector.	

IV. EVALUATING LEARNING: FORMATIVE ASSESSMENT AND TEACHER'S REFLECTION		**NOTES TO TEACHERS**
A. Evaluating Learning	**1. Formative Assessment** Multiple-Choice Questions: Choose the letter of the correct answer. 1. What type of habitat do plants and animals living in the ocean belong to? (a) Terrestrial (b) Aquatic (c) Aerial (d) Arboreal 2. Which habitat includes forests, grasslands, and deserts? (a) Aquatic (b) Aerial (c) Terrestrial (d) Subterranean 3. Where can you typically find a penguin? (a) In the air (b) In the trees (c) In the ocean (d) In a desert 4. Which of the following animals is best suited for a terrestrial habitat? (a) Dolphin (b) Kangaroo (c) Penguin (d) Seagull 5. What type of habitat would you associate with a butterfly? (a) Terrestrial (b) Aquatic (c) Aerial (d) Arboreal 6. Frogs are commonly found in which type of habitat? (a) Aerial (b) Aquatic (c) Terrestrial (d) Polar	**Answer key:** 1. b) Aquatic 2. c) Terrestrial 3. c) In the ocean 4. b) Kangaroo 5. c) Aerial 6. b) Aquatic 7. c) Aquatic 8. c) On land 9. b) Terrestrial 10. a) Terrestrial 11. a) Aquatic 12. c) In water 13. c) Aquatic

	7. What kind of habitat includes ponds, lakes, and rivers? (a) Terrestrial (b) Aerial (c) Aquatic (d) Arboreal 8. Where would you find animals like squirrels and rabbits? (a) In the ocean (b) In the sky (c) On land (d) Underground 9. What habitat is characterized by a lack of trees and very little precipitation? (a) Aerial (b) Terrestrial (c) Aquatic (d) Subterranean 10. Which habitat is primarily associated with birds and insects? (a) Terrestrial (b) Aerial (c) Aquatic (d) Arboreal 11. What type of habitat is a coral reef considered? (a) Aquatic (b) Terrestrial (c) Aerial (d) Arboreal 12. Where would you most likely find animals with gills and fins? (a) On land (b) (In the air (c) In water (d) Underground 13. What is the primary habitat of a polar bear? (a) Terrestrial (b) Aerial (c) Aquatic (d) Arboreal 14. What habitat type includes animals like eagles and hawks? (a) Aerial (b) Terrestrial (c) Aquatic (d) Subterranean 15. Where would you expect to see a camel in its natural habitat? (a) In the forest (b) Underwater (c) In the desert (d) In the treetops 16. What type of habitat includes lakes, rivers, and oceans? (a) Aerial (b) Terrestrial (c) Aquatic (d) Polar 17. Which habitat type includes plants like lily pads and animals like frogs? (a) Terrestrial (b) Aquatic (c) Aerial (d) Subterranean 18. Which of the following animals is best suited for an aerial habitat? (a) Crocodile (b) Albatross (c) Kangaroo (d) Grizzly bear 19. What type of habitat do you associate with a hermit crab? (a) Terrestrial b) Aerial (c) Aquatic (d) Subterranean 20. Where do you find animals that breathe through gills and live in the water? (a) On land (b) In the air (c) Underground (d) In water	14. a) Aerial 15. c) In the desert 16. c) Aquatic 17. b) Aquatic 18. b) Albatross 19. c) Aquatic 20. d) In water

B. Teacher's Remarks	*Note observations on any of the following areas:*	**Effective Practices**	**Problems Encountered**	
	strategies explored	This section should capture what strategies have been successfully employed during the observed activities. It could include innovative teaching techniques, group work, or the use of technology that improved the learning process.	In this part, you would document any issues or challenges encountered during the lesson. These might include difficulties in grasping certain concepts, distractions, or obstacles to active engagement.	
	materials used	Note what teaching materials or resources were particularly effective in enhancing the learning experience. This could involve textbooks, multimedia presentations, or hands-on materials	Document any problems with materials or resources that hindered the learning process. For example, outdated textbooks, technical issues with digital resources, or a lack of essential materials	
	learner engagement/ interaction	Observe how well the students were engaged with the lesson. Effective practices might include students participating actively in discussions, asking questions, or demonstrating enthusiasm for the topic	Mention any instances where learner engagement was lacking, such as disinterest, distractions, or difficulty in understanding the subject ma	
	others	This section is for any notable positive practices that don't fit within the categories	Document any miscellaneous issues or problems that don't fall under the previous	

		above. It could include classroom management techniques, the use of assessment tools, or successful communication with students	categories. These could encompass behavioral problems, communication challenges, or other noteworthy concerns.	
C. Teacher's Reflection	*Reflection guide or prompt can be on:* ▪ *<u>principles behind the teaching</u>* *What principles and beliefs informed my lesson?* *Why did I teach the lesson the way I did?* ▪ *<u>students</u>* *What roles did my students play in my lesson?* *What did my students learn? How did they learn?* ▪ *<u>ways forward</u>* *What could I have done differently?* *What can I explore in the next lesson?*			