HABITAT ADAPTATIONS

Performance Standard 12B/11A.B

Students will apply the processes of scientific inquiry to explore the impact of plants and animals in their changing environments accordingly:

- *Knowledge:* Recognize plants and animals have adapted to survive together in their ecosystems.
- *Application:* Classify animals by characteristics that help them survive in their ecosystems.
- *Communication:* Identify which animals and plants would most likely be found in an ecosystem; explain why certain animals are found in particular habitats and not in others; explain what would happen to animals if their environment changes.

Procedures

1. ***In order to know and apply concepts that describe how living things interact with each other and with their environment (12B) and know and apply the concepts, principles and processes of scientific inquiry (11A),*** students should experience sufficient learning opportunities to develop the following:
   - Describe an observed ecosystem setting with its inhabitants (plants and animals).
   - Begin guided inquiry about the inhabitants.
   - Recognize how plants and animals have adapted to survive together in their ecosystems.
   - Classify animals by characteristics that help them survive in an ecosystem and identify which plants and animals would most likely be found in that ecosystem.
   - Explain why certain animals and plants would be found in a certain habitat and what would happen to those plants and animals if their habitat changed.

   Note to teacher: Obtain pictures, informational booklets, and children's picture books that will be used to promote and enrich the students learning about plants and animals and their adaptations to their ecosystems. Posters of major ecosystems will also be used in this activity. Place these posters around the room. Examples: ocean, rainforest, desert, arctic, woodlands.
2. Have students review and discuss the assessment task and how the rubric will be used to evaluate their work.
3. Begin examination of plants and animals. Encourage inquiry by guiding students as they ask about characteristics that enable plants and animals to survive their ecosystems. Encourage students to explore questions about the impact of changing environments. Guide the students toward answering their questions using applicable scientific vocabulary and resources. Word wall activities may be appropriate.
4. Provide the task sheet "Habitat Adaptations", or prepare a similar one using plants and animals they have studied. Students to do the following:
   - Draw circles around the adaptations that make each living thing different in some way from other living things found on the sheet.
   - Refer to the habitat posters placed around the room and point to a specific habitat. Instruct students to color all the organisms that have adapted to survive in that habitat a certain color.
   - Repeat this step with each habitat until all plants and animals have been identified.
5. Ask each student to answer the following questions and explain their answers:
   - What adaptations do living things have that help them live in a particular habitat and why? For example, some things that live in a pond have fins and webbed feet to help them move through the water.
   - What would happen if a living thing if its environment changed and why? For example, a forest fire would cause the animals to move to another forest to find food and shelter.
6. Evaluate each student's work using the Science Rubric as follows and add the scores to determine the performance level:
   - *Knowledge:* Recognition of the adaptation plants and animals to their ecosystems was complete and correct.
   - *Application:* Classification of plants and animals by characteristics that help them survive was complete and correct.
   - *Communication:* The explanations of adaptations and effects of changing environments were thorough and well detailed.

Examples of Student Work not available

Time Requirements

- 10-15 minutes for labeling task sheet and drawing and labeling a second organism
- 2 – 3 minutes for each presentation

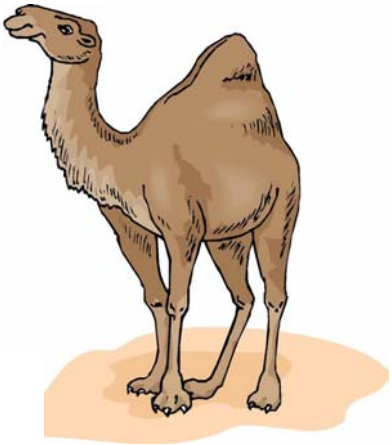
Resources

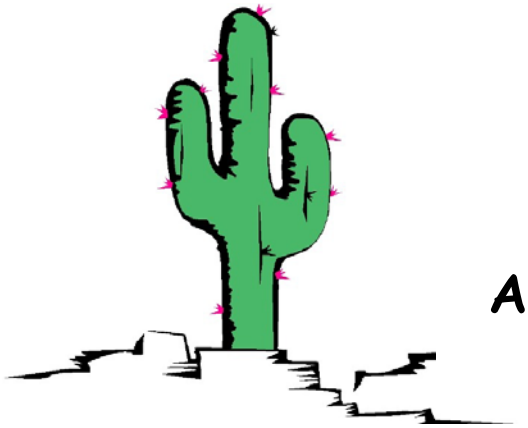
- Copies of the "Habitat Adaptations" task sheet
- Crayons or colored pencils/markers
- Pictures of different plants for alternative activity
- Science Rubric

Habitat Adaptations Answer Sheet

Ocean	orca	seaweed
Arctic	polar bear	lichen
Rainforest	macaw	layeredplants
Desert	camel	cactus
Woodlands	mouse	dandelion

(Image Source: www.arttoday.com)





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