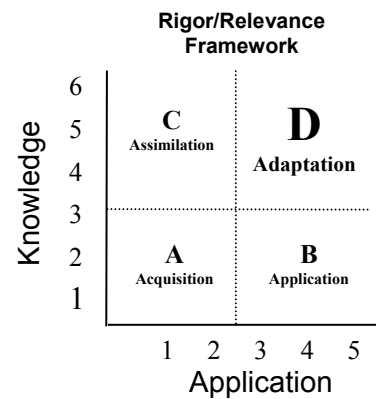




Gold Seal Lesson

POLAR ANIMALS AT THE ZOO



Subject

SCIENCE

Grades K-4

Instructional Focus

Life Science: Students develop an understanding of the relationship between animals and their environment.

Unifying Concepts and Processes: Students recognize patterns and processes, making connections in terms of systems and subsystems that explain the interrelationship of the natural and designed world.

Communication: Students develop competence in making an oral presentation.

Performance Task

This is a multiple intelligences task that engages students in designing a zoo habitat for a polar animal. To succeed, the students will need to develop an understanding of the interrelationship of the natural and designed world. This lesson integrates skills from science, social studies and language arts.

Instructions to students:

After studying the polar regions, your class decides to try to convince the city zoo to establish an exhibit from one of the polar regions. Each group will create a plan to present orally to the zookeeper to use in developing the exhibit.

After doing your research and developing your plan, place your notes for the presentation on 3 x 5 cards. All students in the group must participate in the oral presentation.

To create your plan, you should:

- identify the polar region to be used for the zoo's exhibit.
- identify a polar animal to be the focus of the exhibit.
- sketch a map identifying the Equator, the northern and southern hemispheres, the Arctic and Antarctic circles, and the North and South poles.
- locate and mark the place where your polar animal lives and/or migrates.
- describe and/or illustrate the physical features that make your animal perfect for the conditions in its polar region.
- show where the animal fits in a polar region food chain.
- cite the temperature range of your animal's habitat.
- create a design of the habitat that meets the animal's needs.

In your presentation, explain how your plan meets all the animal's needs – for food, temperature, space to live and move, and socializing with other animals of its kind.

Teacher notes: You may wish to invite a guest to play the role of the zookeeper when the students make their presentations. If you live in a location where there is a zoo, the class could make a behind-the-scenes visit you could have a zookeeper speak to the class.

Scoring Guide

For each content area, assign a range of 4-1 points where 4 = Excellent, 3 = Impressive, 2 = Satisfactory and 1 = Unsatisfactory

Use the following criteria:

Science

Student incorporates and applies knowledge to design a habitat that meets all of the chosen animal's needs for survival. The food chain is clearly represented. The information provided on the temperature range and on the animal's physical features is accurate.

Social Studies

All of the required areas are labeled on the world map. Students correctly identify where their animal lives or migrates.

Language Arts

Oral notes provide a good outline of material to be presented. The oral presentation is clear, concise, and intellectually rich. It captures the audience's attention.

Essential Skills

- Plan and apply real or hypothetical models and constructions to facilitate investigation and learning and the solution to practical problems. (s115)
- Understand ecology as the study of the interactions and relationships of organisms with their living and nonliving environments. (s13)
- Understand and use graphs, charts, and visuals to enhance informational writing. (ela29)

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