

Name: Paula Krische

Grade Level: First grade

Title: Winter, Spring, Summer, Fall; I Hide from You All!

GLEs Addressed

- Science Content GLE: [3] SC2.1 The student develops an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by sorting animals and plants into groups based on appearance and behaviors.
- **Science Process GLE:** [3-9] SA 1.1: The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring, and communicating.
- **Math GLE:** [1] S&P-4: The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by describing information from simple charts/graphs (M6.1.2)
- **Cultural Standard:** C.1 – Culturally-knowledgeable students are able to participate in various cultural environments. Students who meet this cultural standard are able to perform subsistence activities in ways that are appropriate to local cultural traditions.

Science Concept: Changes in the seasons cause changes in animals.

*****The scoring guide and assessment task are located at the end of the lesson. Please share them with your students before beginning the lesson.**

Materials:

- Science Journal 1/student
- Large construction paper (12 X 18) 1/pair of students
- 3 - sheets poster board for laminated charts (Migrate-Hibernate-Adapt)
- hook and loop fasteners-adhesive backed (1" rounds or squares, or the tape type that can be cut to size)
- crayons/markers/colored pencils 1 set/student
- scissors
- Worksheet: Classification Chart
- Worksheet: Bar Graph
- Worksheet: Cloze Sentences
- Laminated chart with the following categories: Migrate, Hibernate, Adapt
- Pictures or drawings of a variety of animals that hibernate, migrate, or adapt. Be sure to include all the animals listed on the classification worksheet. On the back of each picture, write the classification of that particular animal so students can self-correct.
- Chart paper (optional)
- [A Caribou Journey](#) by Debbie S. Miller
- [Turnagain Ptarmigan! Where Did You Go?](#) by James Guenther
- [The Itchy Little Musk-Ox](#) by Tricia Brown
- [Animals Change Their Clothes](#) by Joanne Nelson

Vocabulary

habitat: the natural home of an animal or plant

hibernate: spend the winter in a dormant (sleep-like) state

migrate: move from one habitat to another, usually with the change of seasons

camouflage: an animals natural coloring or form that allows them to blend in with their surroundings.

adapt: change due to new conditions

Gear Up: **Process Skills:** classifying, describing, communicating

- Ask students, “What can you tell me about how animals change as the seasons change?” Write students responses on the board with their initials.
- Have students name animals they might see in the summertime. List those animals on the board/chart paper. (Be sure to add any animals that were not mentioned, but are on the “Classification” worksheet.)
- Read: *Turnagain Ptarmigan! Where Did You Go?* by James Guenther
- Define and discuss the vocabulary words.
- Draw a three-column chart on the board (or have a prepared chart/overhead). The chart needs to have the categories: Migrate, Hibernate, and Adapt.
- As a whole group, classify the list of animals made at the beginning of the lesson.
- Have students record in their journals any changes seen in animals during a change in seasons.

Explore: **Process Skills:** communicating, observing, describing

Preparation:

- Prepare a laminated chart with three columns similar to the classification worksheet.
- Laminate pictures of animals that migrate, hibernate, or adapt to the seasonal changes. Be sure to include (but don’t limit it to) the twelve animals listed on the classification worksheet. *Alaska Magazine*, hunting magazines, *Your Big Backyard* and *Ranger Rick* are good resources for finding photographs of animals. The internet can also be a source but the quality may not be as good as a magazine. Attach a hook-and-loop strip to the back of each picture and to the laminated chart. (If the chart is laminated, tape works fine.)
- Gather and label any fur or feathers that are real life examples of how the animals change with the seasons.
- Create a display that shows how animals change from season to season.
- Draw and color, or provide a picture of an example of a ptarmigan, weasel, reindeer, and/or arctic hare in summer, winter, and fall. This will be a visual aid for students.
- Gather a supply of magazines from which students can cut pictures.

Procedure:

- Review vocabulary words, in particular: migrate, hibernate, and adapt.
- Have the students explore the fur and feathers discussing which animal they cover.
- Using the laminated chart and pictures, classify the animals with the students.
- Do internet search (you can limit the search to a specific region, like the arctic.) and look for the following:
 - Animals that migrate
 - Animals that hibernate
 - Animals that adapt
- Explain the activity to students. Tell them they will work with a partner and that they will draw an outdoor landscape scene of a season of their choosing. If time is limited, you may use wrapping paper or fabric [these both need to have some sort of pattern as a background] as the “scene,” and the colors or pattern can be anything from polka-dots to calico. The point is camouflage.

- Then students will use the colors of the season to create an animal that is changing colors/being camouflaged. The animal may be created on a separate piece of paper, taken from a magazine, or drawn on the scene itself. Then the animal will be placed on the drawing to see how well it is camouflaged.
- Pass out materials: large sheets of construction paper, crayons/ markers/colored pencils scissors, glue, and magazines, or pictures to color.
- After the scenes are completed, partners will share their creations with the class and explain their picture.

Generalize **Process Skills:** inferring, describing, observing, predicting

- What is the purpose of an animal changing its coloring?
- What other kinds of changes happen to an animal's feathers/fur as the seasons change?
- How do animals protect themselves from the weather in the different seasons?
- What would happen if ptarmigan were white all year long? How would this put the bird in danger?
- Why do animals migrate?
- Name some animals that spend their winter in the arctic?
- Why do fur trappers prefer to trap some animals in the winter months?
- What do people do in the different seasons to help them adjust/"adapt" to the change in temperature?

Apply: **Process Skills:** measuring, observing, communicating

- Discuss how local animals are used to make traditional foods during different seasons and list the foods/animals on the board. Ask if the animal being able to change helps it from becoming food.
- At home with help from parents/an older sibling/another adult, students will make a dish using a local animal. The students will bring their creations to share with their classmates and tell from where and/or how they got the ingredients for their traditional dish.
- At home ask an adult what kinds of local animals they have observed changing from season to season. Bring the list back to school to share with classmates.

Extension:

- Students may enjoy reading *Animals Change Their Clothes* by: Joanne Nelson, *A Caribou Journey* by Debbie S. Miller, *The Itchy Little Musk-Ox* by: Tricia Brown.
- The chart with the pictures for classification of animals into groups (migrate, hibernate, or adapt) may be left available for student use.
- Have students complete the "Cloze Sentences" vocabulary worksheet.
- Have student pretend to be certain types of animals. Then have them do an appropriate action to represent: "Migrate," "hibernate," or "adapt."

Scoring Guide

GLE/Standard	Below Proficient	Proficient	Above Proficient
Science Content GLE [3] SC2.1	In his/her science journal the student will describe fewer than two changes observed in animal appearance and/or behavior during a change in seasons.	In his/her science journal the student will describe two changes observed in animal appearance and/or behavior during a change in seasons.	In his/her science journal the student will describe three or more changes observed in animal appearance and/or behavior during a change in seasons.
Science Process GLE [3] SA 1.1	The student classifies animals into three categories, migrate, hibernate, or adapt.	The student classifies animals into three categories, migrate, hibernate, or adapt.	The student classifies animals into three categories, migrate, hibernate, or adapt.
Math GLE [1] S&P-4	The student creates a bar graph from the classification chart they completed, with less than 80% accuracy.	The student creates a bar graph from the classification chart they completed, with at least 80% accuracy.	The student creates a bar graph from the classification chart they completed, with greater than 80% accuracy The student may correctly add one or more animals to the graph.
Cultural Standard C.1	The student does not list a family recipe for a traditional dish containing a local animal product. (ie: reindeer stew, Eskimo ice cream, baked ptarmigan, and etc.)	The student lists a family recipe for one traditional dish containing a local animal product. (ie: reindeer stew, Eskimo ice cream, baked ptarmigan, and etc.)	The student lists a family recipe for more than one traditional dish containing a local animal product. (ie: reindeer stew, Eskimo ice cream, baked ptarmigan, and etc.)

Assessment Task: Using the “Classification Chart”, each student will classify the animals listed into one of three categories: migrate, hibernate, or adapt. Each student will also complete a bar graph using the completed “Classification Chart,” with at least 80% accuracy. In their science journal, each student will record at least two changes observed in animal behavior during the fall season. Each student will also list at least one of his/her family’s favorite traditional dishes, containing a local animal product.

Name: _____

Classification Bar Graph

6			
5			
4			
3			
2			
1			
	Migrate	Hibernate	Adapt

Directions: Use your classification chart to complete this bar graph. Then answer the questions below.

1. Which classification has the most animals?

2. How many animals on the graph migrate?

3. Which classification has the least animals?
