



# Polar Animals

## 4-8 Classroom Activities

### Penguins in the Arctic?

#### OBJECTIVE

Students will understand the differences between the Arctic and the Antarctic and the animals that live in each habitat.

#### ACTION

1. Using a large writing surface, draw two columns, one labeled "Arctic" and the other "Antarctic."
2. Begin a class discussion by asking students to describe a few differences between these two places. These could be climate, human exploration, land area, ocean area, or others. Write the answers in the columns on the writing surface.
3. Divide students into pairs.
4. Distribute cut up puzzle pieces and construction paper.
5. Ask students to fold the construction paper in half along the width. Label the top half "Arctic" and the bottom "Antarctic."
6. Using only the puzzle pieces with animal images, ask students to hypothesize which animals live at which pole. Place the images on the correct side of the construction paper.
7. Students use the remaining puzzle pieces to create the correct food webs. How many pairs of students guessed correctly?
8. Have students compare the animals that live in the Arctic and the Antarctic. Relate the prime differences discussed earlier in step 2 to characteristics of the animals that allow them to survive in one region but not another.
9. Based on the food webs created, have students infer why penguins would probably not survive in the Arctic. Why couldn't polar bears survive in the Antarctic? Are there any animals that are able to survive at both poles? One animal to discuss would be the arctic tern (*Sterna paradisaea*); it migrates from pole to pole, a round trip of almost 36,000 km (22,370 mi.).

## BACKGROUND

Although the Arctic and the Antarctic appear similar, these regions have very different characteristics. The Arctic is an ocean ringed with land masses while the Antarctic is a continent surrounded by the Southern Ocean. The Arctic has less severe winter temperatures— $-70^{\circ}\text{C}$  ( $-94^{\circ}\text{F}$ ) versus  $-88^{\circ}\text{C}$  ( $-126^{\circ}\text{F}$  in the Antarctic—and the land supports extensive plant life during the summer months. Large land predators such as polar bears, wolves, and foxes live on the tundra. The largest land animal in the Antarctic is a tiny insect.

## MATERIALS

### One set per student pair:

- copy of page 21 with puzzle pieces cut apart
- 8-1/2" x 11" construction paper, any color
- glue
- markers



Penguins and walrus would never meet in the natural environment: penguins live only south of the equator and walrus live only in the northern Pacific and Atlantic Ocean.

