

## Polar Passport

### OBJECTIVE

The student will be able to find locations on a map or globe by using longitude and latitude coordinates.

### MATERIALS

- copies of the *Polar Passport* map on page 19
- pens or pencils
- globe or atlas



### ACTION

Do this activity as a class or in learning groups. After finding a location, identify the pinniped(s) that live(s) there.

1. Distribute copies of *Polar Passport* to students or learning groups. Have students find the thin, black lines that run up and down the globe (from North Pole to South Pole). These lines are called lines of longitude. Longitude is expressed in degrees east or west ( $^{\circ}\text{E}$  or  $^{\circ}\text{W}$ ).
2. Next have students find  $0^{\circ}$  longitude. Follow this line to find and label the Mediterranean Sea, north of the continent of Africa. What pinniped lives here? (*Mediterranean monk seal*)
3. Students then count lines to the right of  $0^{\circ}$  until they reach  $165^{\circ}$  longitude. What ocean is here? (*Arctic Ocean*) Follow  $165^{\circ}$  to find and label New Zealand. What pinniped lives here? (*New Zealand fur seal*)
4. Ask students to find the equator. All lines running parallel to the equator are lines of latitude. Latitude is expressed in degrees north or south ( $^{\circ}\text{N}$  or  $^{\circ}\text{S}$ ). The equator is  $0^{\circ}$  latitude. Follow the equator to find and label the Galápagos Islands off the west coast of South America. What pinniped lives here? (*Galápagos fur seal*)
5. From the equator, have students count two lines of latitude toward the North Pole. What latitude is this line? ( $20^{\circ}\text{N}$ ) Next count five lines below the equator. What latitude is this? ( $50^{\circ}\text{S}$ )
6. Ask students to find the Arctic region. The North Pole is at  $90^{\circ}\text{N}$  altitude. (*Not shown on flat map.*) Where is the South Pole? ( $90^{\circ}\text{S}$  latitude)
7. Now that students are familiar with longitude and latitude, ask the following questions:
  - What country is found at about  $30^{\circ}\text{W}$  longitude and between  $60^{\circ}$  and  $70^{\circ}\text{N}$  latitude? (*Iceland*) What pinniped is found there? (*harbor seal*)
  - What continent is found at  $135^{\circ}\text{E}$  longitude and  $20^{\circ}\text{S}$  latitude? (*Australia*)
  - What U.S. state is found at  $165^{\circ}\text{W}$  longitude and between  $60^{\circ}$  and  $70^{\circ}$  N latitude? (*Alaska*)
  - What country is at  $140^{\circ}\text{E}$  longitude and between  $30^{\circ}$  and  $40^{\circ}\text{N}$  latitude? (*Japan*)
  - What continent lies at  $0^{\circ}$  longitude and  $80^{\circ}\text{S}$  latitude? (*Antarctica*)

Name \_\_\_\_\_

# Polar Passport

North

