

# Arctic and Antarctic Animals!

Your students will be fascinated to learn about the amazing animals living in the Arctic and Antarctic. Here are a few ideas to get you started:

## ARCTIC AND ANTARCTICA

Remind students about the frigid weather associated with both areas. Tell them that the poles are covered with ice all year round.

At the South Pole, the ice covers a large land mass called Antarctica. It is the coldest place on earth. Even though scientists often visit the area to study it, no people live in Antarctica.

At the North Pole, there is no land, only huge sheets of floating ice. This area is called the Arctic. Eskimos are the only people that have been able to consistently endure the harsh, cold winters. They travel across the ice to hunt seals and caribou.

Use the two maps contained in this chapter to help explain where these areas are located. Instruct students to find both the Arctic and Antarctic on a world globe.

## ANIMAL LIFE

The animals of the Arctic include polar bears, whales, seals, the Arctic fox, the Arctic hare, caribou, the Arctic wolf and walrus.

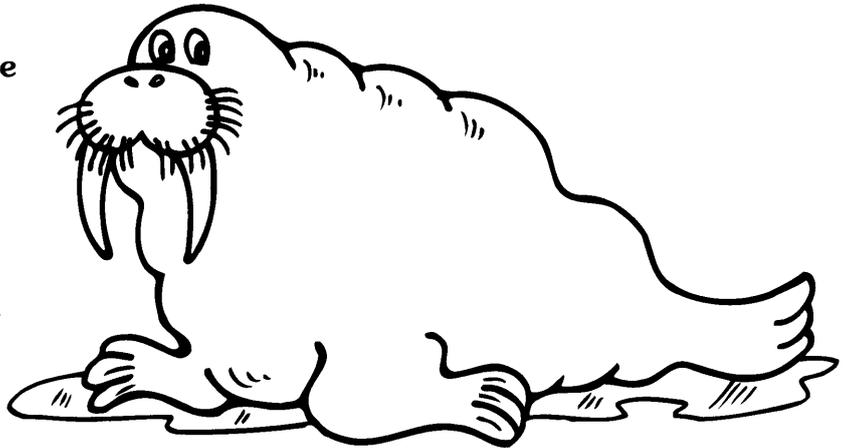
The animals of Antarctica include seals, whales, several birds and many varieties of penguins.

Collect a number of animal resource books from the school library and ask your students to choose an Arctic or Antarctic animal to research. Have each child draw a picture of his or her animal. Pin the maps of both areas on the class board and display the research papers and the drawings around the maps. Stretch lengths of yarn from each paper to the animals' locations and habitats.

## COLOR OF THE POLAR BEAR

The polar bear is white for a reason! Have your students speculate as to why the polar bear has white fur. Ask them to think of other animals that have colors that camouflage them in the wild.

Cut a number of bear patterns from white paper. Cut a few more from both black and brown paper. Now, at the front of the class, tape a large sheet of white paper to the board. During recess, paste or tape all of the bears to the white paper. When the students return to class, ask them to quickly take their seats and add up all of the bears they see on the white paper. They will be amazed at how many white bears they miss!



## PENGUIN MATH

Most penguins average 30 feathers per square centimeter (or about 180 per square inch). Ask your students to estimate how many feathers a penguin might have. Observe the number of creative they can find the overall area of a penguin. (Of course, the size of an Emperor penguin will be different from that of an Adelie penguin).

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## WALRUS FACTS

Did you know that the walrus is a large seal with tusks? His tusks can measure as long as 40 inches! Walruses have short, stiff whiskers that are very sensitive and help them to find food. They have very little hair on their bodies. A male walrus can grow as large as 3,500 pounds and over 12 feet in length. Walruses eat clams, starfish and sea urchins. They use their large tusks to defend themselves against polar bears and human hunters.

Have students measure 12 feet on the class floor. Instruct them to estimate what other object might weigh 3,000 pounds. (A small car would be one.) Show students that a walrus' tusks would measure longer than a yardstick.

## SEAL FACTS

Seals are much smaller than walruses. They eat fish and other sea animals. They must swim under the ice for long periods of time in search for food and can hold their breath for almost an hour. Seals dig breathing holes in the ice to get a breath of air. Polar bears often hunt seals by waiting by a breathing hole for a seal to surface. Seals are the favorite food of killer whales, but their natural enemies also include sharks and man. Baby fur seals have been hunted for their skin for centuries.

Students may like to write to one of the organizations that are attempting to protect endangered sea animals, such as:

Greenpeace  
1611 Connecticut Ave., N.W.  
Washington, D.C. 20009

## TYPES OF PENGUINS

Your students will enjoy learning about several types of penguins and their habitats. Begin by asking the children to list what they already know about penguins. Write the list on the class board. You are sure to get responses which include:

"They are all black and white."  
"They live at the North Pole."  
"They only fly when in danger."  
"Eskimos hunt them."

You will soon learn that the students don't know as much as they think. Divide the class into groups and give each group a penguin to research.

Adelie Penguins are hyperactive smaller birds that live in the Antarctic.

Emperor Penguins are very regal and stand at over three and one-half feet tall.

Crested Penguins have fiery-red eyes and orange or yellow crests on their heads.

Yellow-Eyed Penguins have bright yellow eyes and a yellow crown. They generally live in South New Zealand.

Magellanic Penguins are most commonly seen in zoos and prefer warmer climates.

After each group has reported its findings, compare their facts to the statements on the board. Did they learn anything new?



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## THE ANTARCTIC

Penguins are not the only animals living in the Antarctic. Seals, whales and other birds live there, also.

Ask your students to discover more about the mysterious area known as the Antarctica. Have them find out the answers to these questions:

Who discovered Antarctica?

Are there cities there?

How cold does it get? How warm?

How large is the area?

How much of the area is covered with ice and snow?

Students may also like to find out about ice shelves, glaciers, icecaps, etc.

## HEMISPHERES

When studying penguins, one must remember that not all penguins love ice and snow. Some live in warmer climates. Penguins, however, are found only in the Southern Hemisphere.

Using a globe, show the students the line marking the equator. Point out how south of this line signifies the Southern Hemisphere and north of it the Northern Hemisphere. You may like to continue this exercise into east and west and latitudes and longitudes.

A clever way to teach these concepts is with navel oranges. Give each child a navel orange and a ball-point pen or fine tipped marker. Following your instructions, have them draw a line marking the equator of their orange. Have them each mark north and south, east and west. Latitude and longitude lines can also be drawn.

When everyone understands the concepts, let them peel their oranges and enjoy a refreshing treat!

## EXPLORING THE POLES

Encourage your students to research the lives of the people that risked it all to reach both the South and North Poles. They may like to see the explorers' routes on the maps included in this chapter. Instruct them to find out about the following explorers:

Roald Amundsen, a Norwegian explorer, was the first person to reach the South Pole, in 1911.

In 1929, Naval Officer Richard E. Byrd was the first to fly over the South Pole. He later led expeditions for the United States government.

There were several explorers during the 1500-1800s that attempted to find a water route through the frozen northern seas. Find out about Martin Frobisher, Samuel Hearne, Sir John Franklin and Nils A.E. Nordenskjold.

In 1909, Navy Commander Robert E. Peary and his small crew were the first to reach the North Pole.

In 1958, the U.S. atomic submarine Nautilus traveled nearly 2,000 miles under the Arctic icecap.

In 1978, a Japanese explorer named Naomi Uemura became the first person to reach the North Pole alone by dog sled.

