

Celebrating the Polar Bear

Geri Ruane

Name _____

February 27th is International Polar Bear Day. Spend time this month learning about and celebrating polar bears and thinking of ways in which we can help protect them. Sadly, global warming and melting ice from the North Pole as well as hunting and other factors have all endangered the existence of polar bears. Scientists predict that this animal might become extinct in less than a century. So as we save them, we help our environment and ultimately, help ourselves.

Here are some interesting facts about the polar bear. It is the largest land predator and even though it was born on land, it spends most of its time at sea, swimming or hunting across the seas. Adult male bears can measure eight to ten feet tall and can weigh between 550 pounds to 1,700 pounds. A polar bear cub is no bigger than a rat when it is born. Surprisingly, polar bears do not live in Antarctica!

Whether you are fascinated about polar bears or interested in helping to save them from extinction, let's explore the polar bear in this month's Internet Challenge™. Are you ready to begin?

The first Web site that we will visit is [Animal World USA News and Events](http://network.bestfriends.org/groups/animalworldusa/news/archive/2006/02/25/international-polar-bear-day-is-february-27.aspx) located at <http://network.bestfriends.org/groups/animalworldusa/news/archive/2006/02/25/international-polar-bear-day-is-february-27.aspx>

Read the information, and then answer the first set of questions.

1. What adaptations help polar bears cope with cold weather?

2. Explain the threats that polar bears encounter.

Good answers!

Travel to [San Diego's Zoo Animal Bytes: Polar Bear](http://www.sandiegozoo.org/animalbytes/t-polar_bear.html) at http://www.sandiegozoo.org/animalbytes/t-polar_bear.html

Read the information on this page and, with teacher permission, watch the short video. Answer the next set of questions.

3. Even though polar bears look white, their hair is really made of clear, hollow tubes filled with air.
 - a. True
 - b. False
4. Why are polar bears sometimes called "noses with legs?"
5. How does blubber assist a polar bear?

Great work!

Now, jump over to the [Kid Territory](http://www.sandiegozoo.org/kids/animal_polar.html) of the San Diego Zoo web site. Go to http://www.sandiegozoo.org/kids/animal_polar.html

Read about three orphaned polar bears and their new life at the zoo.

6. Explain the purpose behind the hearing study for the polar bears at the San Diego Zoo.

7. The San Diego Zoo believes that all of their zoo animals are ambassadors for their wild counterparts. Do you agree with them? Why or why not? Give your reasons and be prepared to share them with your teacher and classmates.

8. Polar bears hunt only on land.

- a. True
- b. False

9. Explain the term “layer crashing.”

Good!

Now, let’s go to [Polar Bear International](http://www.polarbearsinternational.org/) located at <http://www.polarbearsinternational.org/>

Click the “Polar Bears” tab at the top. Then click “FAQs about Polar Bears” on the left hand side of the screen. After you are done reading, answer these questions.

10. Explain the expression “walking hibernation.”

11. What is the most serious danger of all threats to the polar bear’s existence?

12. Describe the appearance of a polar bear newborn cub.

Terrific!

Now, scroll up the page and click “Bear Essentials, Polar Style” and then click “Myths and Misconceptions.” Read that section and then answer the following questions.

13. Explain how the misconception that polar bears use tools was developed.

14. Do penguins and polar bears live in the same area?
15. What has happened to the skin of polar bears at zoos?

Way to go!

Now, scroll up the page and click “Will Polar Bears Survive?” and read the information in this piece. Then, complete the following questions.

16. Give details about the existence of polar bears that live by the Chukchi Sea.
17. Why are some people observing more polar bears on land?

Awesome!

Extension Activities – Complete one or all of the activities listed below.

- Be an Arctic Ambassador! Go to [“San Diego Zoo – Conservation for the Great Ice Bear”](http://www.sandiegozoo.org/pbi/index.html) at <http://www.sandiegozoo.org/pbi/index.html>

Read the information on this page and imagine that you have been chosen to be an arctic ambassador for polar bear conservation. What are two points that you would want resolved about _____

helping the polar bear and how would you go about getting it done? How would you share your message with others? Be prepared to share your writing with your teacher and classmates. Talk about it!

- Ways to Celebrate and Save the Polar Bear – peruse the two sites below and give three examples of how you would tell others about polar bear conservation. Share with others and talk about it!

Go to [“Care 2.com-International Day: Celebrate International Polar Bear Day”](http://www.care2.com/causes/environment/blog/its-international-polar-bear-day/) located at <http://www.care2.com/causes/environment/blog/its-international-polar-bear-day/>

Scroll down to the bottom of the page (avoid the advertisements!) and read “How to Help.”

Also visit [National Wildlife Federation – Happy Polar Bear](http://www.nwf.org/News-and-Magazines/National-Wildlife/Animals/Archives/2010/Polar-bear-day.aspx) at <http://www.nwf.org/News-and-Magazines/National-Wildlife/Animals/Archives/2010/Polar-bear-day.aspx>

- Get the word out about Polar Bear Day! Read the following 2010 online article by Sarah Sichman.

Go to [Learn All About Polar Bears on Polar Bear Day – Associated Content from Yahoo!](http://www.associatedcontent.com/article/2682265/learn_all_about_polar_bears_on_polar.html) It's at http://www.associatedcontent.com/article/2682265/learn_all_about_polar_bears_on_polar.html

You are a school journalist. How would you get your school involved in this special day to celebrate the polar bear? Be creative and use advertisements or presentations. After you are done, be ready to share it with your teacher and classmates. Talk about it!

- Design your own polar bear cards to send friends and family members. Using the computer or art tools, create your own polar bear cards. Be ready to share your illustrations with your teacher and classmates.

Congratulations! You have done an excellent job completing this month’s Internet Challenge™.

Answers to February's Internet Challenge™

1. A polar bear's compact ears and a small tail prevent heat loss. Polar bears are so well protected from the cold that they have more problems with overheating than they do from the cold. Even in very cold weather, they quickly overheat when they try to run. Other adaptations include small bumps on their paws called papillae that keep their feet from slipping on ice; strong, powerful claws that enable them to catch seals, and a nose powerful enough to detect prey that is miles away.
2. Threats to the bears include pollution, poaching, and industrial disturbances. Hunting could become a threat if populations are not well managed.
3. (a) True
4. The polar bear's nose is so powerful it can smell a seal on the ice 20 miles away, sniff out a seal's den that has been covered with snow, and even find a seal's air hole in the ice up to one mile away.
5. Blubber helps insulate polar bears from the freezing air and cold water, and acts as a nutritional reserve when food cannot be found. The blubber, from two to four inches thick, also helps bears float in the water.
6. Using positive reinforcement techniques, the polar bears were trained to touch a target when they heard a tone. The results of this hearing study are being used in the Arctic to protect polar bears from man-made noise due to industrial activities. This information is especially important in areas where polar bear mothers make their dens.
7. Students' own answers.
8. (b) A polar bear may also hunt by swimming beneath the ice.
9. Mother polar bears teach their young how to layer crash – jump up and down on the ice to break through the layers in order to find food (seals) underneath it.
10. Polar bears do not hibernate; instead, they enter a state of walking hibernation where their metabolism slows down.
11. Rapid loss of sea ice is the polar bear's major threat.
12. A polar bear newborn cub looks like a big, white rat. At birth, cubs are twelve to fourteen inches long and weigh little more than about one pound. They are blind, toothless, and covered with short, soft fur. They are completely dependent on their mother for warmth and food.
13. Polar bears do not use tools, including blocks of ice, to kill their prey. Scientist Ian Stirling believed that this idea may have come about because, after failing to catch a seal, a frustrated and angry polar bear may kick the snow, slap the ground—or hurl chunks of ice.
14. No, they do not live in the same area. Polar bears live only in Arctic areas that surround the North Pole—not in Antarctica, which surrounds the South Pole. One might see illustrations of penguins and polar bears together, but this could never happen. The word arctic comes from the Greek word for bear, and Antarctic comes from the Greek meaning the opposite, without bear.
15. The skin of polar bears have been known to turn green due to colonies of algae growing in their hollow hair shafts. This happened at the San Diego Zoo in 1979. No harm came to the bears, and zoo veterinarian Phillip Robinson restored the bears to white by killing the algae with a salt solution.

16. The Chukchi Sea population, shared by Russia and the United States, show a declining polar bear population due to illegal harvest in Russia and one of the highest rates of sea ice loss in the Arctic.

17. Some Native communities in Canada are reporting an increase in the numbers of polar bears on land. Traditional hunters believe this means an increase in population. Others attribute it to bears being driven to land by lack of ice. More data is needed in order to understand the change.

Extension Activities – students own answers.