

1. Name two or more animals that live in Antarctica.

Challenge: What animal groups do those animals belong to? (I.e Reptiles? Marsupials?)

2. What oceans(s) surround Antarctica? (You may use a globe or a map to figure this out!)

3. Name the world's oceans.

4. What latitude lines are covered by Antarctica?

5. How many miles are there between each line of latitude?

6. Locate the South Pole and put your finger on it.

7. If you are at the South Pole, which direction would you head in to find South America? How about New Zealand?

8. What 2 countries are closest to Antarctica?

Challenge: What continents are those countries a part of?

9. Where would you go to find information on how far 1 inch is on a map?

Challenge: Calculate the distance from the southern tip of Chile to the northern tip of Antarctica.

10. What is the city called on the southern tip of South America?

Challenge: What country is that and what language is spoken there?

11. Is Antarctica a country or a continent?

Challenge: What is the difference between a country and a continent?

12. What is a map?

Challenge: What different types of maps are there and how are they used?

13. These countries are the world's five largest in land area. Use a map to help you order them from largest to smallest: Brazil, China, the United States, Russia and Canada.

Challenge: Put these countries in order by population.

14. These continents are the world's five largest in land area: North America, Africa, Antarctica, South America, Asia, Europe. Put them in order by land area.

Challenge: Find the area of each continent in square miles and square kilometers.

15. What is the difference between a map and a globe?

Challenge: Why is the 180 degree of longitude on both the east and the west side of the map?

16. Which is colder, the Arctic or the Antarctic?

Challenge: How would you go about finding out? Why do you think one is warmer than the other?

17. What happens in the atmosphere that causes global warming?

Challenge: What do humans do that increases the buildup of these materials in the atmosphere?

18. What is a glacier?

Challenge: What is the difference between a glacier and an Ice Sheet?

19. Look at weatherunderground.com and see what today's temperature is in McMurdo Station, Antarctica. How cold is it in your city? How much colder is it in McMurdo?

20. Look up the word POLYNYA in the dictionary. What is the definition?

21. Look up the word VENTIFACT in the dictionary. What is the definition?

22. What do you think the word CIRCUMPOLAR means? What would the Circumpolar Current be? Do a computer search and see what you can learn about the Antarctic Circumpolar Current.

23. Geologists working in Antarctica commonly use polarized sunglasses. What are polarized lenses? How do they protect your eyes?

24. The average ice thickness covering Antarctica is approximately 2,000 m. How many feet is that? How many miles thick is that? Imagine... ice that thick across the entire continent!

25. Antarctica is covered by approximately 17 million square miles of ice. How many square feet is that? How many square yards?

26. Look at the coastlines of continents all around the world. If the East Antarctic Ice Sheet were to melt, global sea level would rise around 200 feet. Name 10 cities that would be flooded if global sea level rose 200 feet.

27. If you were to choose a color for a parka (or heavy jacket) what color would you choose? Why?

28. At what temperature does water freeze to ice?

29. Write an Acrostic poem using the word ANTARCTICA. Try to make your poem about Antarctica!
30. Which hemisphere is Antarctica in?
31. What divides the northern and southern hemispheres? How about the eastern and western hemispheres?
32. In January, what season is it in Antarctica? What season is it where you live?
Challenge: Why are the seasons different in Antarctica? Is there a pattern to the difference?
33. Go on a scavenger hunt. Find these places: Ross Ice Shelf, Weddell Ice Shelf, South Pole, Antarctic Peninsula, McMurdo Station, Palmer Station, and Mount Erebus.
Challenge:
34. Look at the shape of Antarctica. Looking at a map scale, calculate the distance across the widest part.
35. If you assume Antarctica to be a perfect circle, calculate the area using the formula you know for the area of a circle. Calculate the circumference. The average ice thickness in Antarctica is 2,450 meters. Given that, calculate the volume of ice in Antarctica. (Hint: in order to do this, you will need to convert your area into square km and square m).
36. The first explorer to see Antarctica was a man named Bellinghousen, in the year 1821. How long ago was that?
37. At one time, people hunted whales in Antarctic waters. A whaling station opened on South Georgia Island in 1904. It closed in 1965. How long was it open?
38. What do you think whales were hunted for?
39. Geology is one of the scientific areas that is studied in Antarctica. Can you think of other words that begin with "geo"?
40. Can you think of other words or places that begin with "Ant"? What do you think the prefix "ant" means?
41. Researchers traveling to Antarctica are only allowed to bring 75 pounds of clothing, equipment, and supplies to Antarctica. What would you take if you only had 75 pounds?

42. The largest iceberg ever spotted that broke off of Antarctica was 208 miles long and 60 miles long. It was the size of Belgium! How many square miles was the iceberg? Find Belgium on a map. What language is spoken there.
43. ANDRILL scientists study mostly Sedimentary Rocks. Where do most sedimentary rocks form?
44. Many Antarctic scientists study the cryosphere. Look up the definition of cryosphere in the dictionary.
45. There is an ozone hole over much of Antarctica. What is an ozone hole? Why is it dangerous?
46. If you were out in the cold for many weeks, what foods do you think you would feel like eating?
47. What do you think would be the hardest part of living in Antarctica? The best part?