

Ice Sheets and Ice Caps

Seventy-five percent of Earth's **fresh water** is in a solid state. It is frozen as ice in the polar regions and on tall mountains.

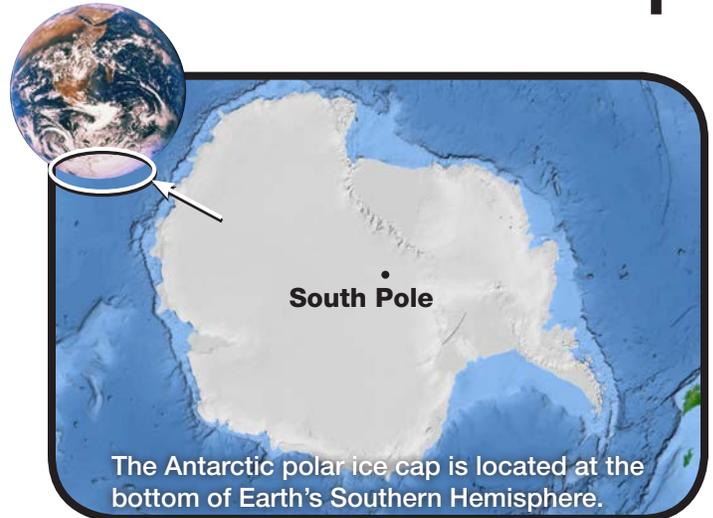
The North and South Poles are the coldest places on Earth. During the warmest months, **temperatures** at the South Pole average only -27°C (-16°F)! It is so cold in the polar regions that snow falls, but it does not melt. The ice and snow keep piling higher. These large piles of ice and snow are called **ice sheets**. Earth's poles are covered by large ice sheets called **ice caps**.

Do You Know?

The world's largest ice sheet covers most of Antarctica. Its average thickness is more than 2,100 meters (7,000 ft.). To imagine that thickness, think of six Empire State Buildings stacked on top of one another!



an ice shelf in Antarctica



Most of Earth's ice can be found in the gigantic ice sheets that cover Greenland and Antarctica. Sometimes ice sheets begin on land but continue into the sea. The portion extending over water is an *ice shelf*.

Some ice sheets are found on water. The Arctic ice cap floats on top of the Arctic Ocean. During the winter, it can grow to the size of the United States.

The world's ice sheets are slowly melting. Many scientists think *global warming*—an increase in Earth's temperature—is responsible. Human activities such as burning coal, oil, and gasoline release gases. The gases trap Earth's heat. If the ice sheets melt, ocean water could rise and flood coastlines.

✓ Brain Check

- How does an ice sheet form?
- Where can you find ice caps?