



**Argentina's
Esperanza Base**




**The United States'
McMurdo Station**



Continent Close-up

Antarctica is Earth's most extreme continent. It sits at the bottom of the world and includes the South Pole, Earth's southernmost point. It is colder and windier than any other place on Earth. Antarctica is almost completely covered in a thick sheet of ice and is surrounded by frosty ocean waters. No humans live in Antarctica permanently, and there are no countries or cities there. But people from around the world visit the continent to do scientific research.



Land area	5.4 million square miles (14 million square kilometers)
Average thickness of ice sheet	1.3 miles (2.16 kilometers)
Number of countries	0
Number of permanent research stations	About 75
Year-round population	About 1,000 
Population during the Antarctic summer (around November to March)	About 4,000
Fast fact	People did not set foot in Antarctica until the 1800s.



Layers of ice often form on the surface of the ocean surrounding Antarctica.



CHAPTER



Land and Climate

Hundreds of millions of years ago, Antarctica was at the center of a giant landmass called Gondwana. Much of Gondwana was lush green forest. But about 180 million years ago, Gondwana began to break apart. This process formed several of today's continents. When the breakup was over, Antarctica was alone at the bottom of Earth. About 34 million years ago, Antarctica experienced a deep freeze. Its green forests were no more. Today, most of the continent is covered in an ice sheet that is as big as the United States and Mexico combined!

THE **BIG** TRUTH!

Too Many Tourists?

Tens of thousands of tourists visit Antarctica each year. Some sail along the coastline in ships or fly over the continent in small planes. Others come ashore to see the icy scenery up close. Some people worry that this tourism will ruin Antarctica's unspoiled environment. They want to stop it. But others disagree.

This chart explores both sides of the debate. What do you think?



YES, there are too many tourists.

- ✓ Tourists can scare seabirds and cause them to leave their nests.
- ✓ Ships and boats can leak oil in the waters around Antarctica.
- ✓ Tourists might accidentally bring seeds or bugs from other places to Antarctica.
- ✓ Tourists walking in Antarctica can cause the icy ground to erode, or wear away.

NO, there are not too many tourists.

- ✓ Tourists who follow the rules do not get near enough to wildlife to disturb it.
- ✓ Some tourist ships help bring scientists and their equipment to research spots.
- ✓ Tourists learn what a special place Antarctica is. Then they can work to protect it for the future.
- ✓ Tourists help with some science projects. For example, scientists study tourists' photos of Antarctic whales to learn more about these animals.