Another tool is a weather balloon. The balloons fly high in the air. They measure temperature. They tell scientists what the air is like above Earth.
If you are going to a warm place, you take shorts and T-shirts. If you are going to a cold place, you take warmer clothes.

One tool is a climate station. Scientists use the stations to measure the temperature. They measure the speed of the wind. They measure how much sunlight there is. They measure how much rain or snow there is. These measures tell scientists what that place is like.

Illustration courtesy of Beyond Penguins and Polar Bears.

Scientists use tools on land. They use them in the air and in the water. They learn about climate. They help us know what different places are like. This helps us when we take trips. What will you pack?
You are going on a trip. How do you know what clothes to pack?

A third tool is a satellite. Satellites fly in space. They take pictures of the Earth. They tell scientists about clouds and storms.

A Glossary

**Buoy** – a tool that floats in the ocean and collects data about the water.

**Climate** – what a place is like over a long time.

**Climate Station** – a set of tools that collects data about the weather.

**Satellite** – a tool that flies in space and collects data about Earth.

**Weather Balloon** – a balloon that carries tools into the air.

Hotel Climate Station. Photo courtesy of NOAA, USCRN.
How do we Study Climate?

You know what to pack because of climate. Climate tells us what a place is like. Some places have warm climates. Other places have cold climates. Scientists study Earth’s climate. To do this, they learn about Earth’s land, air, and water. Tools help them study what these places are like.

One more tool is a buoy. Buoys float in the ocean. They measure the temperature of the water. They keep track of currents and waves. They tell scientists what the oceans are like.