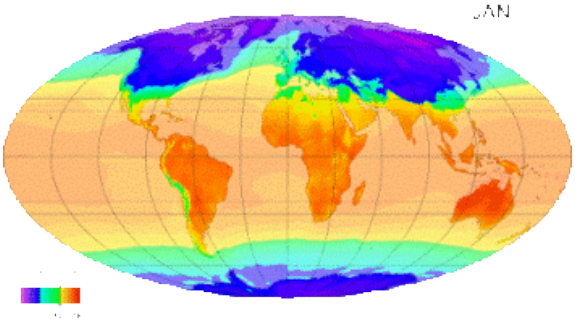
Science for Kids: Climate



What is climate?

Climate is the average measurements of temperature, wind, humidity, snow and rain in a place over the course of years. Climate is like the weather, but over a long time.

Climate vs. Weather

Climate is different than weather. Weather is changes in the atmosphere that occur on a daily basis. The weather we experience today could be completely different than the weather we have tomorrow.

Climate is a pattern of weather that occurs over a long time such as years and centuries. For example, the climate in an area could be dry in that it rarely rains there. However, on days when it does rain, the weather is rainy for that day. The climate doesn't change, it's still a dry climate.



Types of climate

There are lots of ways that scientists use to describe different types of climate. One way is to divide up climates into five types: tropical, dry, mild, cold, and polar. There are also important subcategories including rain forest, desert, tundra, savannah and steppe.

Why is climate important?

Climate can determine a lot of things, but it especially determines what kind of plants and animals can live in an area. For example, polar bears need a cold climate. They would be terribly hot and would die quickly in the desert. When climates start to change, animals and plants become endangered.

Climate Change

Climates can change over long periods of time. Sometimes this is just the cycle of the earth, but sometimes outside forces can have a big impact on climate. Humans have had an impact by building large cities and cutting down vegetation in places like the rain forest. This has had an impact on the local climate. Other major events that can affect the climate include volcano eruptions and changes in the Sun.

Ice Age

Over the history of the Earth there have been times when the Earth's climate has cooled considerably. During these times the ice cap, or glaciers, covering the North Pole has grown to encompass much of the northern hemisphere.

Fun Facts about Climate

- Since the sun hits the land and ocean around the equator at a direct angle, this area is generally the warmest area on the planet.
- Winds are generally in the same direction in certain places over the oceans. They have names like the North East Trade winds and Westerlies. These winds are important in climates and were also important to ancient sailing ships which needed the power of the wind to travel.
- The wettest place on Earth is Mawsynram, Assam, India which gets 467 inches of rain a year.
- The driest place is the Atacama Desert, Chile which gets virtually no measurable rain on a yearly basis.
- The hottest place on Earth is the Danakil Depression in Ethiopia where the average temperature is 34 degrees C (93 degrees F).
- The coldest place is Plateau Station, Antarctica where the average temperature is -56.7 degrees C (-70.1 degrees F).