

Investigation 6: Climates

This investigation will help you to:

- Learn more about the difference between weather and climate
- Learn more about factors that determine climate
- Learn more about climate and vegetation.
- Learn more about micro-climates.
- Complete Part B of this investigation, you will need a blank global map.
- Complete Part C of this investigation, you will need climate resources.

To learn more about weather and climate, visit the following web sites:

Weather vs. Climate, **University of Washington**

Find out what makes weather different from climate.

Climate and Weather, **EPA**

Provides a kid friendly explanation of climate and weather.

To learn more about factors that determine climate, visit the following web sites:

Climate, **Environmental Change Network**

This page features a diagram of the climatic zones of the world. Follow the link at the bottom of the page to learn more detailed information on factors that affect climate.

A Primer: Factors Affecting Arctic Weather and Climate, **NSIDC**

"The factors discussed in this section are building blocks to understanding arctic weather and climate. Each factor plays an important role alone and in interaction with other factors. The "Arctic Energy Budget" ties all the factors together in a description of the Arctic as a climate system."

To learn more about climate and vegetation, visit the following web sites:

Climate, Land Use, and Environmental Sensitivity (CLUES), **USGS Global Change Research**

Read about some different projects that investigate vegetation response to climatic change, and vegetation-land surface impacts on climate change.

Biomes, **Exploring the Environment**

"Scientists have divided the broad spectrum of climates and ecological communities found on Earth into biomes in different ways - some with many divisions, some with only a few." This site focuses on some of the common biomes (arctic tundra, deciduous forest, desert, taiga, tropical rainforest, tropical savannah) with photos that accompany separate descriptions of each.

Mission Biomes, **Earth Observatory, NASA**

Explore the following biomes:

- tundra,
- shrubland,
- rainforest,

- grassland,
- desert,
- temperate deciduous forest,
- and coniferous forest.

To learn more about micro-climates, visit the following web sites:

Microclimates, **Princeton**

Learn more about the formation of microclimates.

Mountain Weather, **NOVA PBS**

Learn about how microclimates form on volcanos and mountains.

To complete Part B of this investigation, you will need a blank global map, visit the following web sites:

World Atlas: Maps and Geography of the World, About.com

Find free blank maps here.

To complete Part C of this investigation, you will need climate resources, visit the following web sites:

This part of the investigation requires you to do your own research on a particular climatic zone. The listed internet resources should prove helpful. However, you will probably want to continue your search beyond these resources.

United States Interactive Climate Pages, **NOAA-CIRES**

Find climate data for cities throughout the United States. You can also create maps of temperature and precipitation data in the United States from 1895 to the present.

World Climate, **Buttle and Tuttle Ltd.**

Enter a city or town name from anywhere in the world to find climate data for that locality.
