



Why Are Climate and Weather Important?

“What’s the weather going to be like today?” That is often the first question on your mind when you wake up in the morning. What you wear, and sometimes even what you do on any given day depends on the weather. Weather can change very quickly. It could be sunny and warm in the morning, and in the afternoon you could be faced with dangerous thunderstorms and even tornadoes. You count on meteorologists (scientists who study the weather) to provide you with daily weather information.



On the other hand, you depend on the climate to give you fairly similar weather conditions year after year. Farmers expect the same length of growing season each year. Ski-resort operators anticipate a reasonable snowfall each year. They rely on the climate in the area to remain the same. Yet over very long periods of time, climate can change. Climatologists (scientist who study the climate) have evidence that the climate has changed many times in the past.

What Will You Investigate?

These investigations will put you in the roles of weather reporter, fact finder, and inquiring student. You will be using weather instruments and observations to make weather maps, weather reports, and weather forecasts. You will look for patterns in your weather data and explore reasons for those patterns. You will explore how climate has changed over time, the effects of climate on your life now, and what might happen if the climate changes in the future.

Here are some of the things that you will investigate:

- how weather instruments work;
- what is contained in a weather report and map;
- how weather observations are made;
- the underlying causes of weather patterns;
- the difference between climate and weather;
- how scientists know that the climate has changed in the past;
- how climate is changing now.

