



6th Grade Weather Unit

Unit Overview

Students kick-off their study of weather and process that shape the surface of the earth by using a globe to assess geologic and atmospheric patterns on Earth that are related to storms, earthquakes, volcanoes, and other catastrophic events. Using the first section of *Catastrophic Events* by Carolina Biological, students delve into the study of weather by investigating the causes and effects of thunderstorms, tornadoes, and hurricanes. They also analyze methods of monitoring and forecasting these events. Concepts include local and global heating, convection, the water cycle and cloud formation, air pressure, and the analysis of weather maps. The unit concludes with students investigating ocean currents and their effect on global weather patterns.

Essential Questions:

1. How are the physical features of the earth's surface and patterns of cloud cover related to storms, volcanoes, earthquakes, and other catastrophic events?
2. What causes uneven heating of the earth? What patterns does the uneven heating of the earth create?
3. What causes weather patterns?
4. What role do currents play in weather formation?
5. How does the rotation of the earth on its axis affect the movement of air?
6. How does the earth's tilt affect surface temperatures throughout the year?
7. What is the water cycle? What role does the water cycle play in climactic changes?
8. Why do scientists use models?