Unit 1: The Water Cycle

Content Area: **Science**
Course(s): **Science 4**
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Enduring Understandings

Heat (thermal energy), electricity, light, and sound are forms of energy.

Clouds and fog are made of tiny droplets of water and, at times, tiny particles of ice.

Rain, snow, and other forms of precipitation come from clouds; not all clouds produce precipitation.

Most of Earth's surface covered by water. Water circulates through the crust, oceans, and atmosphere in what is known as the water cycle.

Properties of water depend on where the water is located (oceans, rivers, lakes, underground sources, and glaciers).

Essential Questions

How much of the Earth's surface is covered in water?

Is there more salt water or fresh water on Earth and how does that affect living things such as humans, animals, and plants?

What impact do the glaciers have on Earth and how we can prevent them from disappearing?

What causes changes in the weather in some regions and not others?

How does weather determine the climate?

What are all the benefits of water and how do these uses contribute to everyday life?

Even though water is a renewable source, how do humans affect the water supply?

Content

Module: Water Cycle

Internet Resources

Environmental Protection Agency

http://www.epa.gov/ogwdw/kids/flash/flash_watercycle.html

NSIDC National Snow and Ice Data Center

http://nsidc.org/cryosphere/glaciers/index.html

USGS Science for a Changing World

http://ga.water.usgs.gov/edu/earthwherewater.html

Weather Whiz Kids

http://www.weatherwizkids.com/weather-clouds.htm

Census Regions and Divisions of the United States

http://www.census.gov/geo/www/us_regdiv.pdf

National Weather Service

http://water.weather.gov/precip/

http://www.kidzone.ws/water/

Brain Pop

https://www.brainpop.com

Bill Nye Videos

Scholastic News

http://magazines.scholastic.com

Readworks

http://www.readworks.org

Skills

Understand three-fourths of the Earth's surface is covered by water.

Differentiate between salt and fresh water on the Earth's surface.

Reiterate water cycle terms.

Compare the relationship between temperatures and how water changing form through freezing, melting, evaporation, and condensation.

Understand the stages of the water cycle and the role that it plays in the weather and climate in certain regions.

Demonstrate the three stages of matter.

Describe the applications of the various forms of energy

Standards