

# Unit 1: The Water Cycle

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

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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**

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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**

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Module: Water Cycle

Internet Resources

Environmental Protection Agency

[http://www.epa.gov/ogwdw/kids/flash/flash\\_watercycle.html](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](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**

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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**

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