

Wonder Year Lesson Plan - Watershed and Water Use



OVERVIEW

We all depend on water for life. Animals need water. Plants need water. Trees need water to live and so do people. About three quarters of planet earth's surface is covered in water, and 97% of that water is in the oceans. Only 3% of the earth's water is freshwater and most of that is trapped in ice, is too deep to be used or is in the atmosphere. That means only 1% of the earth's water is available for human use.

If you are lucky, you can simply turn on the water faucet and out comes clean water. That is not the case for everyone. According to the World Health Organization, 2.2 billion people do not have access to safely managed drinking water services and over 4 billion people do not have adequate sanitation. Many people cannot even safely wash their hands in clean water every day. Water is an incredibly valuable and precious resource.

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LEARNING OBJECTIVES

- Describe and define a watershed
- Examine how watersheds are valuable to nature and communities
- Examine sources of pollution that can affect a watershed

GRADE LEVELS: 3rd, 4th, 5th

SUBJECT AREAS

Science

MATERIALS

- Online access to watch this video:
<https://www.youtube.com/watch?v=2pwW2rlGla8&feature=share&app=desktop>
- Map of the country or region you are in
- Paper
- Pencil, markers

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ACTIVITY

Step 1: Dive in!

Begin with an opening discussion. Each person, including parents, should complete this sentence:

- Water is important because ..
- I use water for ...
- Other uses of water are ...

Step 2: What is a watershed?

Watch the first 2:30 of this 5 minute video -

<https://www.youtube.com/watch?v=2pwW2rIGIa8&feature=share&app=desktop>

Step 3: Mapping your watershed

Working together as a full family research team, take a careful look at the map of your area. You can pull up an online map or use a paper map.

- What are the boundaries of the watershed?
- Identify all of the major rivers and streams in your area
- Trace one of the rivers blue and follow its path all the way to the ocean
- Brainstorm some of the impacts to this water way as it flows toward a stream, lake or ocean. Does it flow through agricultural lands? Cities?
- Are there sources of pollution in your watershed?
- What activities can we do to protect the watershed?

EXTENSIONS/ADAPTATIONS

Water is life: Write a poem about how we affect the quality of water and how the water affects the quality of our life.

How much water do we use? Estimate your family's daily average water use. Measure your water use over the course of a week and calculate your daily average. Estimate how much you use at home and see if your traveling water use is more or less than at home.