

Lesson 7: Water Everywhere

☐ Getting Started

Today you will read about a variety of water sources on our planet. We rely on these sources for our drinking water, and many of these water sources hold other valuable resources that we depend on for survival. Water can even provide us with electric power!

Stuff You Need

- *The Geography Book: Activities for Exploring, Mapping, and Enjoying Your World* by Caroline Arnold

Ideas to Think About

- How do the physical characteristics of an environment such as its landforms, water forms, and climate cycles influence the development of local cultures?
- How do human beings use water and how do their actions affect the availability and quality of this natural resource?

Things to Know

- Humans use water for drinking, irrigation, washing, industrial use, transportation, as a source of power, and for recreation.
- Watersheds are areas of land that drain into a common body of water. The actions of humans can affect the watershed in positive or negative ways.
- Water for home use can come from municipal or private water systems or from private wells. Wastewater can flow into sewer systems or septic systems.
- Families use water for many of their daily activities and can make choices to conserve water.
- The major oceans on our planet are the Atlantic, Pacific, Arctic and Indian.

☐ Reading and Questions

Read the following pages in *The Geography Book*: pp. 61-64, pp. 66-69, p. 71, and pp. 75-76. Then answer these questions.

1. What are the four major oceans?
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2. What is the largest lake in the world?

3. What kind of water do most lakes have?

4. What is a natural stream of floating water? What does it empty into?

Activities

☐ Activity 1: Know Your Watershed

The land that you live on is part of a watershed. Water that falls on the land in your community drains into a common waterway, which may be a stream, lake, river, aquifer, wetland, or ocean. The choices that individuals, families, businesses, and community groups make can have an impact on the watershed. Watch this short video to learn more about what a watershed is.



What Is a Watershed?

www.beyondthepage.com/link/11921/

Next, use the following web links to identify the watershed you live on and learn about some ways that individual actions can impact the watershed. Complete the "My Watershed" activity page.



U.S. Environmental Protection Agency: How's My Waterway?

www.beyondthepage.com/link/11782/

Use this website to find out the name of your watershed and its associated bodies of water. Click the Protect tab to learn how communities and individuals can help protect their watershed. Use the information you find and your own ideas to complete the "My Watershed" activity page.



How We Protect Watersheds

www.beyondthepage.com/link/11783/

☐ Activity 2: Water at Home

Water for home use can come from a variety of sources. Your household water may come from a well or from a municipal or commercial water system. Wastewater may flow from your home into a septic system or into a municipal or commercial sewer system. Ask your parents about where your home water comes from and what happens to it after it leaves your home.



Drinking Water in Your Home

www.beyondthepage.com/link/11784/

You can learn more about drinking water on the U.S. Environmental Protection Agency's website.

If your home receives water from a municipal or commercial water system, you can visit the water system's website to learn more about where the system draws its water. You also probably receive a water quality report every year, and those reports are often published online on the website of each water supplier. Ask a parent to help you find your local water report if you are interested in learning more about the water that flows from your taps.



Private Wells

www.beyondthepage.com/link/11785/

If your home receives water from a private well, you can learn more about private wells from the Environmental Protection Agency's website.

Complete the "The Water at Home" activity page to record information about the water you use at home.

☐ Activity 3: Daily Water Use

Now that you know the source of your water, let's figure out how you use it in on a daily basis. Complete the "Water Use Chart" activity page to keep track of the ways your family uses water today and then calculate the approximate total number of gallons of water that those activities used.

Wrapping Up

Now that you have a sense of where your water comes from and how your family uses water, can you think of any ways that you could conserve water at home? What can you do, personally, to use less water on a daily basis?

Life Application

If you have the opportunity, tour a local water treatment plant or other water-related facility to learn more about the water in your community and its sources.

My Watershed

Directions: Visit the web links provided in the lesson, and use them to help you complete this page.

Name of my Watershed: _____

Bodies of Water Associated with my Watershed:

5 things that homeschooled kids could do to have a positive impact on their watershed:

1. _____
2. _____
3. _____
4. _____
5. _____



The Water at Home

Directions: Visit the website of your water system, which is probably listed on your city or county's main homepage or on your water bill. Determine the source of the water you use.

*Note: If you have a private well, your water comes from an aquifer underground.

Water Source

Our home water comes from:

☐

a city, county, or state water system

☐

a water system run by a private company

☐

a private well

Wastewater that leaves our home goes into

☐

a sewer system

☐

a septic system





Water Use Chart

Directions: Make a tally mark in the space provided each time your family uses water in one of the ways listed on the chart. At the end of the day, add up the total number of uses for each category. Then use the gallons per use estimate to figure out how much water your family may have used in each activity today. Finally, add up your total estimated water use for today.

Water Use Activity	Estimated Gallons Per Use	Running Tally		#	Total
a full tub bath	40				
5 minute shower	12				
washing hands for 1 minute	1				
brushing teeth for 2 minutes	4				
a load of laundry	30				
1 minute of washing dishes by hand	3				
running the dishwasher	5				
flushing the toilet	5				
low flush toilet	1.5				
1 minute of outdoor watering	10				
1 minute of running water for cooking or other uses	3				

Add up the total amounts used for all of the activities to find an estimate of your household's daily water use.

Your water use may be somewhat more or less than this estimate since the efficiency of appliances and personal habits can dramatically change the actual number of gallons used. For example, if you turn off the faucet while you brush your teeth or if you have low-flow shower heads or high-efficiency appliances, you may use less water. If you have a leak in your water system, you may use more water



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⦿ Skills

- Understand that the amount of fresh water located in rivers, lakes, underground sources, and glaciers is limited and that its availability can be extended by recycling and decreasing the use of water. (SS)
- Know the origin of the water used by local communities. (SS)

Introducing the Lesson

In the previous lesson, your child learned about natural resources. In this lesson, he will explore one of our most critical natural resources — water — in-depth.

NOTE: Your child will use online resources to do research on sources of water for this lesson. Be sure that you are available to supervise your child's online research.

Reading and Questions

1. What are the four major oceans?

Atlantic, Indian, Pacific and Arctic

2. What is the largest lake in the world?

Caspian Sea

3. What kind of water do most lakes have?

fresh water

4. What is a natural stream of floating water? What does it empty into?

a river; the ocean

Activities**Activity 1: Know Your Watershed**

Your child will use the EPA's website to identify his watershed and learn about some ways that individual actions can have an impact on the watershed. You may want to work with your child to navigate the website and identify the appropriate watershed. You may also want to talk to your child about how homeschooled kids can help protect their watersheds.

Answer Key:

1. Answers will vary but may include:
2. Reduce Water Usage: Encourage family members to conserve water by fixing leaks, using water-efficient appliances, and taking shorter showers.
3. Educate Others: Create presentations or posters about watershed conservation and share them with friends, neighbors, or local community groups.
4. Participate in Cleanups: Organize or join local clean-up events along rivers, streams, or lakes to remove trash and improve water quality.
5. Plant Native Species: Work with family to plant native trees, shrubs, or plants in their yard to prevent erosion and provide habitat for wildlife.
6. Monitor Water Quality: Learn about water testing methods and participate in citizen science programs to monitor the health of local water bodies.

Activity 2: Water at Home

Your child may need your assistance for this activity. He will be identifying the source of your family's water supply and may need to go online to view the website of your water provider or an EPA-based site about private wells.

Activity 3: Daily Water Use

Today your child will be estimating the amount of water your family uses in a day. You may need to assist your child by providing information about water use that does not directly involve him. (For example, you might let family members know to be sure to let your child know when they have taken a shower or flushed a toilet or washed their hands.)

Wrapping Up**Questions to Discuss**

- Ask your child what he learned about how humans use water, where water comes from, and how your own family makes use of water.
- Does your child have any ideas for how your family can use water more efficiently? Share these with other family members.

Things to Review

- Review your child's responses on all of the activity pages for this lesson.