



Water Saver or Water Waster

Contact Information

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Grades

3-5

Objectives

Students will be able to: 1) learn why saving water (water conservation) is important, 2) list at least 3 ways to save water at home, 3) help save water by practicing water conservation.

Method

Students will look at how much water is used in daily tasks and learn practices that could reduce the total amount of water used.

Materials

Water Use Worksheets (included)

Vocabulary

Water Conservation

Background Information

When viewed from space, the earth appears to be predominantly colored in shades of blue, which is not surprising since the majority of the earth is covered with water. And right now, somewhere on the planet, water is falling as rain, snow, or sleet. With so much apparent water available, why would we want to conserve water?

Despite this apparent abundance of water, not all of this water is readily available for use by plants, animals, and people. Since precipitation does not fall evenly over the earth's surface, there are large dry areas with little or no available water. Also, 97 % of the water on earth is found in the oceans, which leaves only about 3% left as fresh water for plant, animal, and human use. But wait – of this 3%, a large portion is frozen in icecaps and glaciers, too far underground, or trapped in soil so we are still unable to readily use it. This leaves us less than 1% of the total water found on earth to use for cooking, bathing, cleaning, and the hundreds of other uses we need water for.

In many areas, demand for water is reaching the supply capacity due to increased population growth, new industry, new homes, and other increases in water use. Although new reservoirs or

larger water treatment plants are sometimes considered as options to increase the water supply, they are usually very costly and may not always meet the required demand. Water conservation is an easy, low cost approach that everyone can do to help reduce water demand and limit the impact to water resources.

Procedure

1. Have students list all the ways they use water both inside and outside the home during the day. Record their ideas on the board.

2. Introduce the term Water Conservation. Water Conservation is any practice or technology that helps people use less water. Water conservation *practices* could be something as simple as turning the water off while brushing your teeth or taking a shorter shower each day. Water Conservation *technologies* consist of toilets, showerheads, dishwashers, and washing machines that are designed to use less water.

3. Hand out the Water Use Sheet I - Water Waster. Ask students to review the sheet and look at the water usage. How many of their current water use practices are like the ones listed? Ask them if they think that is a lot of water to use in just one day.

4. Then hand out the Water Use Sheet II - Water Saver. Ask students to review the sheet and look at the water usage. Is it less than before? It is only about 1/3 the total amount used in the Water Wasters sheet.

5. Have students compare the amounts of water used between the two sheets. Look at and go over the practices on the Water Saver sheet. Compare the amounts of water used when doing the same thing. Are they easy to do? Are there any practices that the students could start doing today? Would it cost anything to start saving water? Does it take anything extra from the students to implement these water saving practices? The answer is likely no to all these questions (except the water saving devices*), which shows how easy it is to save water. Even without installing the water saving devices, students could save water by just taking a shorter shower.

6. Students can now start to save water by altering just a few of their daily habits. A good way to wrap up the lesson is to calculate how much water the class would save each day, week, month, or year if each student only saves 5 gallons of water a day:

e.g. 23 students saving 5 gallons a day = 115 gallons a day, 805 gallons a week, 3450 gallons a month, and 41,400 gallons a year!

Now calculate if everyone in Athens-Clarke County (105,000 people) saved just 5 gallons of water a day: Over a half million gallons per day and **a whopping 191,625,000 gallons a year!!!**

*** Items such as water conserving showerheads are available for free from the Athens Clarke County Public Utilities Department at 706-613-3729.***

Water Use Sheet I - Water Waster

Water Use Activity	Water Amount	Total Minutes or Uses Per Day	Gallons Used
I take long 15 minute showers. The showerhead is an older model that uses lots of water	5 gallons per minute	x 15	= 45
I have an older model toilet instead of a new water saving model. I flush it 6 times a day	5 gallons per use	x 6	= 30
I flush trash and bugs down the toilet twice a day instead of using a garbage can	5 gallons per use	x 2	= 10
I brush my teeth with the water running while brushing. I do this twice a day	6 gallons per use	x 2	= 12
I get a drink of cold water by running the tap water until it is cold	1 gallon per drink	x 4	= 4

Total 101 gallons

Water Use Sheet II - Water Saver

Water Use Activity	Water Amount	Total Minutes or Uses Per Day	Gallons Used
I take shorter, 10 minute showers. The showerhead is a new water saving model.	2 gallons per minute	x 10	= 20
I have a new water saving model toilet. I flush it 6 times a day	2 gallons per use	x 6	= 12
I use a garbage can for trash and bugs and don't put trash in the toilet	0 gallons per use	x 0	= 0
I turn the water off while brushing my teeth and only turn it on to rinse. I do this twice a day	1 gallon per use	x 2	= 2
I put a pitcher of water in the refrigerator to get cold so I can always get a quick, cold drink of water.	8 ounces per drink	x 4	= ¼ gallon

Total 34 ¼ gallons