



## FACTivity

The question you will answer in this FACTivity is: How much fresh water do you use during a typical day at home? The method you will use to find the answer is completing and *analyzing* the following questionnaire. Each person in your class should complete the questions below. Then, using the guide given below the questions, each person will calculate the number of gallons of fresh water he or she might use in a typical day while at home. These numbers are not exact. For example, you might turn the water off while you brush your teeth, while your classmate might leave the water running. You might decide to wash the car or water your flowers.

Remember that you are calculating an estimate, not an exact amount. Then, your class will calculate an estimate of the total number of gallons used by the whole class in a typical day, and an estimate of the *average* number of gallons used by each person in the classroom. Answer only for your own activities. Answer the questions below for a typical day spent at home on a Saturday. Write your answers on a blank sheet of paper. Number your paper from 1 to 11.

- How many baths do you take?
- How many showers do you take?
- How long is each shower in number of minutes?
- How many times do you brush your teeth?
- How many times do you wash your face and/or hands?
- How many times do you shave your legs or face?
- How many dishwasher loads do you run?
- How many sinks full of dishes do you wash by hand?
- How many loads of clothes do you wash?
- How many times do you flush the toilet?
- How many 8-oz. glasses of water do you drink?

Now, use the guide below to estimate how much fresh water you use on a typical Saturday.

- Multiply the number of baths you took by 50 gallons.
- Add the total number of minutes you spent in the shower, then multiply that number by 2 gallons.
- Multiply the number of times you brushed your teeth by 1 gallon.
- Multiply the number of times you washed your face or hands by 1 gallon.
- Multiply the number of times you shaved your legs or face by 1 gallon.
- Multiply the number of times you washed a load of dishes in the dishwasher by 20 gallons.
- Multiply the number of times you washed a sink full of dishes by 5 gallons.
- Multiply the number of times you washed a load of clothes by 10 gallons.
- Multiply the number of times you flushed the toilet by 3 gallons.
- Multiply the number of 8 oz. glasses of water you drank by 8. Then divide that number by 64 to calculate how many gallons of water you drank.

Now, add the numbers you calculated using the guide to get an estimate of your fresh water use in number of gallons on a typical Saturday. To find out how many gallons your whole class used, add every student's total gallons together. To calculate the classroom average, divide the classroom's total number of gallons by total number of students.

Now hold a class discussion about fresh water usage. Are you surprised at how many gallons you probably use on a typical Saturday? Is your personal total greater or lower than the average for the class? Can you think of ways to reduce the number of gallons you use? Remember, it is important to bathe regularly, wash your hands frequently, and brush your teeth after every meal. As you look for ways to conserve water, do not cut out any of these activities.

This FACTivity was adapted from the "Water Science for Schools" Web site: [www.ga.usgs.gov/edu/sq3.html](http://www.ga.usgs.gov/edu/sq3.html). You can do this activity on-line by visiting the web site.