



Water Use & Conservation Worksheet

(Adapted from Izaak Walton League's Save Our Streams program)

Instructions

Answer the following questions about your personal water use.

Name _____

Date _____

Class _____

Water Use

Personal Water Use

1. How many pounds of water are in you? (Approximately five-sixths of your body weight is water.)

Use this equation to calculate your answer:

$$\frac{5}{6} \times \frac{\text{Your weight in pounds}}{\text{Pounds of water}} = \frac{\text{Pounds of water}}{\text{Pounds of water}}$$

2. How many gallons of water are in your body? (1 gallon of water weighs 8.1 pounds.)

Use this equation to calculate your answer:

$$\frac{\text{Pounds of water (answer to \#1)}}{\text{Gallons of water}} / 8.1 = \frac{\text{Gallons of water}}{\text{Gallons of water}}$$

3. How many swimming pools full of water do you need in your lifetime? (Each person's body needs to replace approximately 1.5 million gallons of water throughout his/her lifetime. A backyard swimming pool holds approximately 20,000 gallons of water.)

Use this equation to calculate your answer:

$$\frac{1,500,000 \text{ gal}}{\text{Swimming pools of water}} / 20,000 \text{ gal} = \frac{\text{Swimming pools of water}}{\text{Swimming pools of water}}$$

City Water Use

4. How much water does your city/town use each day? (The average person uses 150 gallons of water per day. You will need to find out how many people live in your city or town. Access the latest population figures from the Chamber of Commerce, the U.S. Census Bureau, or your teacher.)

Use this equation to calculate your answer:

$$\frac{\text{City population}}{\text{Daily city water use}} \times 150 \text{ gal/person/day} = \frac{\text{Daily city water use}}{\text{Daily city water use}}$$



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5. How much water does your city use in a year? (Use your answer from question 2 and multiply by the number of days in a year.)

Use this equation to calculate your answer:

$$\frac{\text{_____}}{\text{Daily city water use}} \times 365 \text{ days per year} = \frac{\text{_____}}{\text{Annual city water use}}$$

Water Conservation

Shower Water Use

6. Run your shower for one minute into a pitcher or bucket large enough to capture all of the water. Pour the water into large measuring cups or gallon containers, and count how many cups or gallons of water your shower puts out in one minute. Convert your calculation to the other measurement (cups or gallons), and record both measurements below. (There are 16 cups per gallon.)

_____ cups or

_____ gallons

7. The average shower uses 7 to 9 gallons of water per minute. Does your shower use more or less water per minute? Circle the correct answer below.

More

Less

8. How much water does your family use to shower? (Estimate how long it takes everyone in your household, including yourself, to take a shower starting from the time the water starts running until it stops. Add up the total time for everyone.)

Use this equation to calculate your answer:

$$\frac{\text{_____}}{\text{Gallons (answer from \#6)}} \times \frac{\text{_____}}{\text{Minutes for all showers}} = \frac{\text{_____}}{\text{Gallons for all showers}}$$

Toilet Water Use

9. The average toilet uses 5 to 7 gallons per flush. Estimate how much water you flush each day.

Use this equation to calculate your answer:

$$6 \text{ gallons average per flush} \times \frac{\text{_____}}{\text{Number of flushes}} = \frac{\text{_____}}{\text{Gallons flushed per day}}$$