

Start with a Book: River Rangers

# Daily Water Use



## Introduction

Many people around the world can't turn on a tap and get any water at all. Folks have to go get and transport their water. 600 million people spend up to 6 hours each day doing just that. The need for transporting fresh water prevents many children, especially girls, from going to school. In this activity, kids will look at their own water use and explore what it would be like to provide water for their family.

## Supplies

- Printout of Daily Water Use chart for each child
- Two jugs or buckets filled with 1 gallon of water, or two 8-lb weights

## Let's get started!

Ask kids to calculate how much water they use in a day, in gallons. Give each child a printout of the Daily Water Use chart (**SEE NEXT PAGE**). There are several different ways to figure out usage:

- Ask kids to fill out their Daily Water Use chart at home based on one day of observations.
- Estimate usage with this free H2O Tracker app:  
[itunes.apple.com/us/app/h2o-tracker/id566633837?mt=8&ls=1](https://itunes.apple.com/us/app/h2o-tracker/id566633837?mt=8&ls=1)
- Use this online tool from DC Water to record usage:  
[dcwater.com/kids/activities/dailywaterusage.html](https://dcwater.com/kids/activities/dailywaterusage.html))

When every child has their daily water usage estimate, it's time for some simple math! Ask the kids to multiply the number of gallons they use per day by 8 lbs (the weight of a gallon of water) to determine how heavy it would be if they had to carry that water in a container instead of just turning on a tap.





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## NUMBER OF GALLONS YOU USE EACH DAY X 8 LBS = YOUR DAILY WATER LOAD TO CARRY

Have each kid lift the two buckets or jugs, each with a gallon of water, or the two 8-pound weights, to feel how heavy it is. **ASK THE KIDS:** What would it be like if you had to carry this much water every day on foot, walking for a mile or more?

## Daily water usage in the U.S.

The average American family uses more than 300 gallons of water per day. About 70% of that is water we use in our homes. Use this chart to record how many gallons of water you use each day.

**MY NAME:** \_\_\_\_\_

**TOILET:** 3 gallons (each flush) \_\_\_\_\_

**BATH:** 36 gallons (average) \_\_\_\_\_

**SHOWER:** 2 gallons per minute \_\_\_\_\_

**WASHING HANDS AND FACE:** 1 gallon \_\_\_\_\_

**TEETH BRUSHING:** 1 gallon (average) \_\_\_\_\_

**GLASSES OF WATER** (128 ounces in a gallon) \_\_\_\_\_

**WASHING MACHINE:** 23 gallons (average) \_\_\_\_\_

**DISHWASHER:** 2 gallons (average) \_\_\_\_\_

**LEAKS:** 17 gallons (average) \_\_\_\_\_

## WHAT ARE SOME WAYS I CAN SAVE WATER AT HOME?

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_





## Food's big water footprint

What you eat makes up at least two-thirds of your total water footprint. That's because of the large amount of water needed to grow and produce your food.

Food Item	Serving Size	Water Footprint
Hamburger	1 (includes bread, meat, lettuce, tomato)	660 gallons
Eggs	1 egg	52 gallons
Soda	17 ounces	46 gallons
Salad	1 (includes tomato, lettuce, cucumbers)	21 gallons

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## The hidden water in everyday things

Did you know that it takes almost 660 gallons of water to make a t-shirt? Of course, we don't "see" that water — it's hidden in the way we grow cotton, and manufacture and deliver the shirt. **ASK THE KIDS:** What is all that water used for? This chart shows how much water is used to make other common products. The average American's daily water footprint for all the (non-food) household goods we buy, use, and throw away is about **600 GALLONS**. "Reduce, reuse, recycle" can help save a lot of water!

Item	Water Footprint
Car	13,737 – 21,926 gallons
Leather Shoes	3,626 gallons
Smart phone	3,190 gallons
Jeans (cotton)	2,108 gallons
T-shirt (cotton)	659 gallons

All information from The Water Footprint Calculator: [watercalculator.org/water-use](http://watercalculator.org/water-use)





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### IMAGINE A DAY WITHOUT WATER

Now imagine that the well or spring you usually walk to for water is empty. **ASK THE KIDS:** What could be the reason that there is no clean water? (drought, monsoon rains). What would a day be like without water? Have kids fill in the printout on the next page.

### WHEN THE WATER IN YOUR TAP IS UNHEALTHY

Sometimes we think that access to clean water is a problem that happens “over there” — not in our own country. But there are communities in the U.S. where people lack safe drinking water. The drinking water crisis in Flint, Michigan is a recent story. The town’s water was contaminated with lead as a result of improper water treatment and old pipes. You can learn more about what happened in Flint in these stories:

#### **THE WATER CRISIS IN FLINT, MICHIGAN (DOGO NEWS)**

[dogonews.com/2016/1/20/the-water-crisis-in-flint-michigan](http://dogonews.com/2016/1/20/the-water-crisis-in-flint-michigan)

#### **FLINT WATER CRISIS: RAP VIDEO (FLOCABULARY)**

[flocabulary.com/unit/week-in-rap-extra-flint-water-crisis/](http://flocabulary.com/unit/week-in-rap-extra-flint-water-crisis/)

#### **FLINT’S WATER CRISIS EXPLAINED IN 3 GIFS (TIME MAGAZINE)**

[time.com/4191864/flint-water-crisis-lead-contaminated-michigan/](http://time.com/4191864/flint-water-crisis-lead-contaminated-michigan/)



### REFLECTION QUESTIONS

- What surprised you about how much water you use? How would your life be different if you didn’t have easy access to clean water?
- Cities and towns clean the water for their residents. Some people get water from wells on their property instead. What are the advantages and disadvantages of both sources of water? Which would you rather have?





**Instructions**

Imagine that you woke up one day, went to brush your teeth and turned on the faucet to discover that there was no more water left in the WORLD! What would happen? Add speech or thoughts into the shapes, draw in the top and add narrative in the area at the bottom of each cell.

# Imagine a Day Without Water


