

# BOISE WATERSHED

# Weekly Challenge



Welcome to the WaterShed Weekly Challenge. Every week during the summer the Boise WaterShed will release one challenge for people at home to complete. These challenges will focus on a STEM topic and each completed challenge will give you one raffle ticket for a chance to win a family membership to the Discovery Center of Idaho. The raffle will take place at the end of the summer! The more challenges you complete, the better your chances of winning are. You can complete these challenges at any point throughout the summer. See below for how to submit a completed challenge. We would love to share your experiences with these challenges. If you take any pictures or videos of completing or working on these challenges, send them to us and we will feature them every Friday on a special Facebook shout-out message. You can also tag us on Facebook, @BoiseWS.

## WEEK 1: WATER AUDIT CHALLENGE

This is a challenge to see how much water you use at home. Fill in the following tables to calculate how much water you use in one week. You can also use an online water footprint calculator to find your weekly water use. After you calculate your water use, research some of the provided resources and work with your family to come up with three actions you can do to help conserve water. This method is meant to calculate how much water you alone use, not your whole family. If you want to do the water audit challenge for your whole family, feel free to add them to the data!

Check out Table 1 for flow rates of water use in our homes:

**FLOW RATES FOR HOUSEHOLD APPLIANCES AND FIXTURES**

Column 1	Column 2	Column 3
	Older model (before 1994)	After 1994 (or Efficient)
Kitchen Faucet	3 gallons per minute	2.5 gallons per minute
Bathroom Faucet	3 gallons per minute	2.5 gallons per minute
Shower	5 gallons per minute	2.5 gallons per minute
Toilet	5 gallons per flush	1.6 gallons per flush
Washing Machine	40 gallons per load (on large setting)	25 gallons per load on large setting (efficient is 15 gallons)
Dishwasher	15 gallons per load	8 gallons per load
Garden hose	17 gallons per minute	17 gallons per minute

Note: It takes 25 gallons of water to produce 1KWh (kilowatt hour) of electricity; which is equal to ten standard 100 Watt light bulbs on for 1 hour.

Table is from Project WET Home Water Audit Activity

Now, we are going to use the following tables to track our water use for one day. You can actively track your water use for a day, or you can make estimates based on your water use, whichever is easiest. If you do not utilize a home water use from column A, leave it blank.

DAILY				
Column A: Home Water Use	Column B: Number of times used per day	Column C: Minutes per use	Column D: Gallons per day (B x C x Flow rate, or B x flush)	Column E: Gallons used per week (D x 7)
Brushing teeth with faucet running				
Toilet flush		—		
Taking a shower				
Wash dishes by hand with water running				
Taking a bath (calculate how many minutes it takes to fill tub for Column C)				
Other:				
Other:				

Total Gallons used per week for daily activities (sum of column E):

WEEKLY				
Column A:	Column B: Number of times used per week	Column C: Minutes per use	Column D: Minutes per week (B x C)	Column E: Gallons per week (D x Flow rate from Table 1 or B x flow rate for dishwasher and washing machine)
Watering, washing, or playing with a hose				
Doing a load of Laundry		—	—	
Running the dishwasher		—	—	
Other:				

Total Gallons used per week for weekly activities (sum of column E):

### TOTAL PER WEEK

Total gallons used for one week (total daily activities + total weekly activities):

## DISCOVERY

Now that you have calculated a good estimate of how much water you use during the week. Take a minute to reflect on your data.

Do you use more or less water than you thought you would at the beginning of this challenge?

What at-home activity uses the most water? Was it the one you expected to use the most water?

## WATER CONSERVATION

There are a lot of ways for us to conserve water at our homes. The following links showcase some local water information as well as some ways that we can conserve water. Spend some time researching water in the Boise River Watershed and some actions that you can use at home to conserve water.

[Boise's Water Future](#)

[Flushable: What you shouldn't flush down your toilet](#)

[How to Save Water from the Water Footprint Calculator](#)

[American Rivers](#)

## LIST 3 ACTIONS YOU CAN TAKE TO HELP CONSERVE WATER IN YOUR OWN HOME:

ACTION 1

ACTION 2

ACTION 3

If you would like to be entered for a chance to win a Family Membership to the Discovery Center of Idaho, email the three actions you will take to conserve water in your household to [bw@cityofboise.org](mailto:bw@cityofboise.org) with "WaterShed Challenge Week 1" in the subject line. Include the names and ages of all participants and a mailing address. Each eligible participant will receive one entry for the raffle and a Boise WaterShed Prize Packet at the end of the summer. If you would like to be a part of our Friday shout-out video, share any pictures or videos with us on Facebook (@BoiseBW) or through email. Thanks for being an awesome part of our community.

Check back next week for the next WaterShed Weekly Challenge!

