

Waste Not, Want Not

LESSON SUMMARY

In this activity students will replicate ways water can be wasted and conserved.

LESSON OBJECTIVE(S)

Students will model water usage and water conservation.

Students will calculate their water footprint.

Students will complete water conservation quiz.

FOCUS QUESTION

What are some ways we waste and conserve water?

LEARNING TARGET (I CAN STATEMENT)

I can list ways we waste water and ways to conserve water.

STANDARDS ADDRESSED

AR: 6-ESS3-4

MS: E.5.10.1

TN: 6.LS4.2

MATERIALS

- 2 two-gallon buckets
- Measuring Cup
- Water Use Cards
- Ruler
- Devices with internet access
- <https://quizizz.com/embed/quiz/64834f9ebe40af001d7a2c3a>

PROCEDURES

1. Label one of the two-gallon buckets “Water Supply” and the other “Water Used.”
2. Print Water Use Cards for both Group 1 and 2. Laminate for extended use.
3. Ensure internet access and devices.
4. Start activity by asking students ways we use water every day. List them on the board.
5. Divide students into two groups. If the class is an odd number, have one student be the recorder. If the class is even numbered, either you can be the recorder or a student of your choice.
6. Distribute Water use cards. Group one students will receive Water Use cards with no conservation methods. Group two will receive Water Use cards with conservation methods. If using less than the number of cards provided, be sure to keep the same number cards together (i.e. Group 1 Card 5 and Group 2 Card 5).
7. Point out to students the Water Supply bucket. Have the recorder use the ruler to measure the height of the water in the bucket and record it on the board. Explain that this bucket represents the amount of freshwater each group can have per day.

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8. Have the first person in group 1 read their card and using the measuring cup, remove water from Water Supply to Water Used Bucket. Continue until all of group 1 has gone.
9. Have recorder measure how much is in the Water Supply bucket. Write on the board. Subtract the water leftover from the beginning measurement. Record how much water was used by group 1.
10. Dump the water in the Water Used bucket into the Water Supply bucket. Remeasure the Water Supply bucket. It should be the same but good science to remeasure.
11. Have the first person in group 2 read their card and using the measuring cup, remove water from Water Supply to Water Used Bucket. Continue until all of group 2 has gone.
12. Have recorder measure how much is in the Water Supply bucket. Write on the board. Subtract the water leftover from the beginning measurement. Record how much water was used by group 2.
13. Discuss the difference in the amount but how each group did the same activities.
14. Have students go to <https://www.watercalculator.org/> and calculate their water footprint. Lead a classroom discussion comparing everyone's footprints.

CLOSURE

Have students log into the Quizizz you have assigned them.



Group 1

<p>#1 I have been working in the sun and am very thirsty. I would like some cold water to drink. 1 CUP (250 mL)</p>	<p>#2 I have been playing basketball and need to take a bath. 3 CUPS (750 mL)</p>
<p>#3 Mom asked me to wash the breakfast dishes, so I put them in the dishwasher and turned it on. 2 CUPS (500 mL)</p>	<p>#4 Mom said my tennis shoes need cleaning, so I ran them through the washing machine. 2 CUPS (500 mL)</p>
<p>#5 Since it's so hot outside, I want to fill up the wading pool. 2 CUPS (500 mL)</p>	<p>#6 It is time for lunch and I need to wash my hands with the faucet running. 1 CUP (250 mL)</p>
<p>#7 Mom wants me to wash her car tonight. 2 CUPS (500 mL)</p>	<p>#8 Flush the toilet, please. 1 CUP (250 mL)</p>
<p>#9 Dad and I are growing a garden. Since plants need water, turn the sprinkler on, please. 2 CUPS (500 mL)</p>	<p>#10 I just ate an ice cream cone. I need to brush my teeth with the faucet running. 1 CUP (250 mL)</p>
<p>#11 Our grass needs water to grow every day. 1 CUP (250 mL)</p>	<p>#12 I noticed the faucet leaking but it's nothing more than a drip. 1 CUP (250 mL)</p>



Group 2

<p>A I have been working in the sun and am very thirsty. There is a cold bottle of water in the refrigerator. 1/2 CUP (125 mL)</p> <p>#1 - Group 2</p>	<p>B I have been playing basketball and I need to take a short 5-minute shower. 1/2 CUP (125 mL)</p> <p>#2 - Group 2</p>
<p>C Mom asked me to wash the breakfast dishes. I will wait until our dishwasher is full. 1/2 CUP (125 mL)</p> <p>#3 - Group 2</p>	<p>D Mom said my tennis shoes need cleaning. I'll run them in the washing machine when it is full of old towels or cleaning rags. 1 CUP (250 mL)</p> <p>#4 - Group 2</p>
<p>E Since it's so hot outside, I want to fill the wading pool, but I don't need to fill it to the top. 1 CUP (250 mL)</p> <p>#5 - Group 2</p>	<p>F It is time for lunch and I need to wash my hands. I'll just fill the sink halfway and not run the faucet. 1/2 CUP (125 mL)</p> <p>#6 - Group 2</p>
<p>G Mom wants me to wash her car, so I'll use the water I saved from the kitchen and bathroom sinks instead of letting the water run down the drain. 0 CUPS (0 mL)</p> <p>#7 - Group 2</p>	<p>H Please flush the toilet. There is a plastic bottle filled with stones in the tank. 1 CUP (250 mL)</p> <p>#8 - Group 2</p>
<p>I Dad and I are growing a garden. We use a soaker hose and mulch the plants. I'll also use rainwater we have saved. 1/2 CUP (125 mL)</p> <p>#9 - Group 2</p>	<p>J I just ate an ice cream cone. I need to brush my teeth. I never leave the water running. 1/2 CUP (125 mL)</p> <p>#10 - Group 2</p>
<p>K Our grass needs water to grow, but not every day. We use a soaker hose. 1/2 CUP (125 mL)</p> <p>#11 - Group 2</p>	<p>L I noticed the faucet leaking so I told my dad and he fixed it. 0 CUPS (0 mL)</p> <p>#12 - Group 2</p>