

# Evaluation H<sub>2</sub>O Challenge

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Devon

## Our Group Reflections

Penelope: Clay soil and Sandy soil make it so plants cannot feed! Clay soil becomes rock-hard almost immediately, so the water can BARELY go in the ground!! It wil eventually evaporate, and you won't see THAT H<sub>2</sub>O again.

Penelope: We also learned MANY amazing facts. For example, did YOU know that it takes

1500 LITERS of H<sub>2</sub>O to make ONE kilo of meat? Or did you know that, if you took ALL the water in the world, and fit it in a one-liter jar, the water of human usage would be the size of a single M&M?

Penelope: Our class made a garden with a lot of hard work; and it started with just a bunch of unhealthy soil and weeds! We

yanked out those Garden Bullies, and got to work. We planted all different types of plants in our garden! We had officially Xeriscaped the garden!

**FUN FACT:** There was the same amount of water on earth as there was thousands of years ago!!!

We figured out what plants are drought tolerant and will be the best to irrigate in our xeriscape garden

We had a master gardener named Ms. Colby come to our classroom and teach us about evergreen and deciduous trees and different plants.

We made 2 big dioramas. Our first diorama shows good things that people are doing to conserve H<sub>2</sub>O and ways that we need to help. Our second diorama showed a xeriscape house

and all the ways that you can conserve H<sub>2</sub>O in your garden.

FUN FACT: When you flush your toilet, you use about 7 gallons of water!!!

FUN FACT: Astronauts recycle their pee into water, and it turns out to be CLEANER than the typical faucet water we use on Earth(eeeew)!

FUN FACT: About 6,800 gallons of water is required to grow a day's food for a family of four!!!

Devon: 1,300 liters of water goes into one kilo of wheat. 15,500 liters of water go in one kilogram of meat.

FUN FACT: 71 percent of the earth's surface is covered in water!!!

Ainsley: :Our experiment showed that plain soil erodes the most

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: Grass erodes the second most .

: Soil with dry leaves is the cleanest..

FUN FACT: 70% of the human brain is water!!!

We made a xeriscape garden as a team and learned about different plants and their water needs.

A few last fun fa

The Water Otters are amazing!!!

Helena:

We have designed and engineered so much and we are really proud of our work. GO WATER OTTERS!!!

Now for the facts

1 pound of beef requires 1,799 gallons of water.43

1 gallon of wine requires 1,008 gallons of water.43

A 0.3 pound burger requires 660 gallons of water.<sup>43</sup>

1 slice of bread requires 11 gallons of water.<sup>43</sup>

1 apple requires 18 gallons of water.<sup>43</sup>

1 pound of chocolate requires 3,170 gallons of water.<sup>43</sup>

500 sheets of paper requires 1,321 gallons of

Thirty-six states are anticipating water shortages by 2016.<sup>14</sup>

300 tons of water are required to manufacture 1 ton of steel.<sup>15</sup>

1 in 6 gallons of water leak from utility pipes before reaching customers in the US.<sup>15</sup>

Americans use 5.7 billion gallons per day from toilet flushes.<sup>15</sup>

Refilling a half-liter water bottle 1,740 times with tap water is the equivalent cost of a 99 cent water bottle at a convenience store.

By 2025, water withdrawals are predicted to increase by 50 percent in developing countries and 18 percent in developed countries.<sup>18</sup>

By 2025 half the world's people will live in countries with high water stress.<sup>19</sup>

A water-efficient dishwasher uses as little as 4 gallons per cycle but hand washing dishes uses 20 gallons of water.<sup>20</sup>

The average family of four uses 180 gallons of water per day outdoors. It is estimated that over 50% is wasted from evaporation, wind, or overwatering.<sup>20</sup>

It takes more than twice the amount of water to produce coffee than it does tea.<sup>21</sup>

Chicken and goat are the least water intensive meats to consume.<sup>21</sup>

There have been 265 recorded incidences of water conflicts from 3000 BC to 2012.<sup>21</sup>

If the entire world's water were fit into a 4 liter jug, the fresh water available for us would equal only about one tablespoon.<sup>23</sup>

Over 90% of the world's supply of fresh water is located in Antarctica.<sup>23</sup>

Water regulates the Earth's temperature.<sup>23</sup>

On average, 10 gallons per day of your water footprint (or 14% of your indoor use) is lost to leaks.<sup>24</sup>

The average pool takes 22,000 gallons of water to fill.<sup>24</sup>

It takes about 70 gallons of water to fill a bathtub.<sup>25</sup>

Flying from Los Angeles to San Francisco, about 700 miles round-trip, could cost you more than 9,000 gallons of water.<sup>25</sup>

Water use has grown at more than twice the rate of population increase in the last century.<sup>26</sup>

Only 0.007 percent of the planet's water is available to fuel and feed its 6.8 billion people.<sup>26</sup>

Three quarters of all Americans live within 10 miles of polluted water.<sup>27</sup>