## Water

## by Sophia

## WHAT'S COVERED

In this lesson, we will cover the topic of water. We will discuss the state of water supply in the world and how it is treated and stored. We will explore the various uses of water and compare the water consumption of nations in the context of global water consumption. Specifically, this lesson will cover the following:

## 1. Earth's Water Supply

About 70\% of Earth's surface is covered in water. While the total supply of water is fixed, it does cycle from ocean to atmosphere to land and back to the ocean through the water cycle. However, this does not change the total available water, which is finite.

Unfortunately, humans can't use seawater for household or drinking purposes unless it has been treated, which can be very expensive.

## (?) DID YOU KNOW

Approximately $97 \%$ of global water is seawater. The remaining $3 \%$ is freshwater and only $1 \%$ of that is accessible for human use. Freshwater can be found in glaciers, ice, below the ground, and in lakes and rivers.

## 2. Water Treatment

Some water can be used without any treatment, but the majority requires treatment before it is usable. Once water is found at its source, it is transported to a water treatment facility, like the one shown below, that can remove harmful contaminants and materials.


After that, it is taken to a storage facility, like the water tower shown below. It is stored there until it is needed. When needed, it will be distributed for use through methods such as faucets and sprinklers.


## 3. Global Water Consumption

Presently, water is used for drinking, food preparation, bathing, cleaning, and in toilets. Water is also used by fire departments for fire protection and by industries for various uses.

Water is not used equally across the planet. Different regions use water differently per capita. Developed regions like the United States and Europe use most of the water, though developing nations hold the majority of the world's population. This chart shows average water use per person per day in various nations.


At the time of making this tutorial, India and China hold approximately $35 \%$ of the world's population, yet only use around 80 or 140 liters per person per day respectively, while the United States averages almost 600 liters per person per day and holds only $4.4 \%$ of the world's population.

## v SUMMARY

In this lesson, we learned about the layout of Earth's water supply. We learned how much water is usable, how water is treated, and how we use water. We discussed global water consumption and how water is disproportionately used by developed and developing nations.

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