**PAESTA Podcast Series – You Asked, We Answered!**

**Episode 21 - Why is Earth called the Water Planet?**

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Hello everyone, my name is Jenna Federle and today I will be answering the question, why is Earth called the water planet? Now the Earth is a very watery place but the actual amount of water on, in and even above our planet is hard to come by. Water covers about 75 percent of the Earths surface, in both liquid and frozen form. From inside the planets crust to inside the cells of the human body. Water exists in the air as water vapor and the ground to moisture the soil. Water is everywhere. [1] Ninety-six-point-five percent of Earth’s water is the ocean as salt water. Three-point-five-percent of Earth’s water is fresh water. The Earth’s freshwater are the lakes and frozen water that is held in glaciers and polar ice caps. A majority of our freshwater comes from rain falling from the sky and moves into the oceans lakes and rivers. Oceans are what produce about 70 percent of our oxygen. It can absorb heat and send it other places around the world. Oceans take a big role in the world’s weather system. There is much more freshwater stored in the ground that we can’t see that is essential to our lives too. [3] This water is what we rely on as humans to live our everyday lives. Out of all of the Earth’s freshwater, sixty-nine-percent is frozen. Sea levels would rise to an altitude of two-point-seven kilometers if all of that freshwater were to melt. [2]

Water is always on the move from one place to another and even changing its form too. This is all thanks to the water cycle. The Earth would become really dried up and hard if we didn’t have the water cycle. If this were to happen we wouldn’t be able to do our everyday things. The water cycle takes good care of the Earth’s water supply. Some of the water that comes from precipitation after a rainfall goes into the ground to refuel the aquifers. While that goes on, water in the ground is continuously refueling rivers. Humans use billions of gallons of surface water a day. And billions of gallons of ground water a day. Water on the surface of the Earth is used for our drinking supply. And to supply water to crops. The ground water that we use does a lot more than just help keep our rivers and lakes filled. Ground water provides water for those who live in a part of the world where there’s a limited amount of surface water. [3]

It’s said that trying to figure out the total amount of water for the whole planet has been the hardest study yet. But a few years back in 2014, there was a study where scientist found evidence of what may be an ocean’s worth of water deep in the Earth’s mantle. This study must’ve helped a great deal with finding out the total content of water for the whole planet. As I said earlier water is even in the planets crust. This water is in a form that is unfamiliar to us. They’re like blocks of water connected to each other. The quantity of the water below the surface may be large enough to be the biggest water reservoir on the planet. [4] Water is contained in almost every inch through out the entire planet.

The large bodies of water on Earth are important for human survival. Even though only a small fraction of the overall water supply is acceptable and available for human use. If it weren’t for these large amounts of water, temperature variations would be much more intense through the day and night. For example, if we didn’t have the large bodies of water, parts of the Earth’s surface would be hot enough to ….lets say boil water during the day and cold enough to freeze water at night. [5] We as humans wouldn’t be able to live in these conditions. We wouldn’t survive.

There isn’t just one reason why the Earth is called the water planet. Everything that has to do with the Earth has to do with water. It is in fact a cycle that controls and manages our planet. Without the water cycle and all of our resources of water there wouldn’t be any of us.

(This audio file was recorded by *Jeannette Federle*, undergraduate student at Penn State Brandywine, in April 2016.)

**Works Cited**

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