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단원	Lesson 3. Toward a Better Environment		

## Innovative and Eco-friendly Ideas for Plastic

Have you ever thought about how many plastic products you use a day? You brushed your teeth with a plastic brush this morning, right? What about plastic bags, containers, or water bottles?

You use a lot of plastic in everyday life. According to a survey, global production of plastic reached 311 million tonnes in 2014.

### The Problems with Plastic

Plastic is useful. As you know, it is cheap, lightweight, and strong. Despite these advantages, plastic pollutes the environment severely.

The biggest problem is that an enormous amount of plastic waste is generated throughout the world. Plastic remains in landfills for hundreds or thousands of years and results in soil pollution.

That is not all. Each year 12.7 million tonnes of plastic get thrown into the ocean and threaten marine life. The most effective solution to these problems would be to create eco-friendly alternatives to plastic.

**Could Mushrooms be the Future of Plastic?**

A lot of plastic foam is used to make packaging containers. Unfortunately, the containers are used only for a few weeks to protect your brand-new computer or TV on its journey to your house, and then they end up in landfills.

Eben Bayer, an eco-friendly product designer, recognized that plastic foam has a negative impact on the environment. He wanted to remove the need for it. So, after years of experimenting, he created a 100% biodegradable packaging material.

The main ingredient of the packaging material is mushrooms. Cheap, useless agricultural waste, like the husks of rice and wheat grain, is also needed to make mushroom packaging.

After the waste is cleaned, it is mixed with mycelium, a material that can be found at the root of mushrooms.

The mycelium holds the agricultural waste together and then the mixture is put into a mold. With the mixture growing in the mold, the mushroom packaging takes the shape of the mold.

After a few days, the mixture is removed from the mold and it is dried to prevent any additional growth of the mycelium. Finally, a 100% biodegradable package is ready for use.

Eben Bayer hopes that this mushroom packaging will replace plastic foam. He says, "What I want to guarantee is that in 10,000 years, our descendants, our children's children, will be living happily and in harmony with a healthy Earth."

### **Ooho, We Can Eat the Water Container!**

The consumption of plastic bottled water is on the rise. For example, it was estimated that the USA consumed as much as 36.5 gallons of bottled water per person in 2015.

The problem is that most plastic bottles are thrown away and take up space in landfills. What if we could replace those plastic bottles with something more environmentally friendly — edible, even?

To solve the problem of plastic bottles, Rodrigo Garcia González and his coworkers came up with an innovative idea. They created an edible water container, Ooho. Ooho is a thin gel bag which is made of seaweed.

It is biodegradable and safe for human consumption. Once the water inside is consumed, Ooho can be thrown away or eaten. It reportedly only costs two cents to make.

In addition, anyone can easily make this water container in their kitchen. Besides, making Ooho has a climate benefit, as it does not cause the CO<sub>2</sub> emissions that the bottle manufacturing process does.

There are many other creative, eco-friendly ideas, such as chicken feather-based plastic and plastic foam which is made from milk and clay.

In addition, other small efforts we make in our daily lives can make a difference. For example, we can use our own personal refillable water bottles instead of buying disposable plastic bottles of water.

We can also bring our own reusable bags to the market and say "No" to plastic bags. With all these ideas and efforts combined together, we can reduce the total amount of plastic waste!



**Take notes**



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