The Great Pacific Garbage Patch

Far out in the northern part of the Pacific Ocean, there are waters where few ever cross. It is called the North Pacific Gyre. It is filled with around 1.8 trillion pieces of garbage. This dirty part of the ocean is called The Great Pacific Garbage Patch. It's made up of debris, or garbage, such as old fishing gear, bottle caps, and plastic bottles.

In the late 1980's, Alaskan researchers found high amounts of debris in certain areas of the ocean. These areas are known as gyres. A gyre is formed when water currents move around in a circle motion. The current catches and holds floating pieces of garbage. The Garbage Patch is estimated to be double the size of Texas.

Most of this garbage comes from the Pacific Rim. This includes Asia and North and South America. The garbage gets funneled here. Over time, the garbage breaks down due to the wind, rain, and waves.

Peppered Soup

As these plastics break down, they become microplastics, or very small bits of plastic. These tiny microplastics will keep moving through the gyre. Even though the plastic gets smaller, it never really goes away. This contaminates our waters, making them dirty.

Imagine a bowl of soup with pepper flakes floating around in it. Like these flakes of pepper, the microplastics look like food to sea life. Sadly, fish, birds, and turtles will mistake these small pieces of plastic for food. The United Nations Environment Program says that this kills about one million seabirds and 10,000 sea animals each year. We can also get sick by eating fish that have eaten garbage.

Clean Up Concerns

Cleaning up this mess is not easy. Large plastics may be easy to clean up. Microplastics make the task much harder.

Many of these tiny pieces of plastic are the same size as small sea animals. Nets that could be used to scoop up the garbage would also scoop up these tiny creatures. The sea creatures are very important to the ocean's food web. Getting rid of them could put the entire ecosystem at risk.

Dead sea turtle among plastic garbage on the beach sand
By Dmytro Sukharevskyi

The cost is another problem. Due to the size and location, no nation will take the responsibility or pay the huge expense of cleaning it. Finally, the National Ocean and Atmospheric Administration's (NOAA) Marine Debris Program guessed that it would take 67 ships one year to clean up just one percent of the patch.

Taking Action

We can help this problem by preventing more garbage from getting into our waterways. The simplest way is to stop littering. Never throw trash out of boats or cars. Rain and wind can carry this litter into drains. This ends up in our waters.

Another way we can help is by recycling or using less plastic. Plastic is not biodegradable. This means it never completely breaks down over time. There are other products or biodegradable materials that can be used instead, such as reusable straws and cups. Some cities are even banning the use of plastic straws for this reason.

Finally, we can do our part by educating the people around us. Remind others to always throw away trash and to recycle used plastics. Taking care of our planet is important. Prevention is the first step toward a cleaner, more beautiful Earth.

Comprehension Quiz

Choose the best answer.

1. Where is the Great Pacific Garbage Patch?
   a. San Francisco, Califormia
   b. The North Pacific Gyre
   c. North America
   d. The Pacific Rim

2. How many pieces of garbage are in the Great Pacific Garbage Patch?
   a. 1.8 trillion pieces
   b. 1.8 million pieces
   c. 8 trillion pieces
   d. 80 million pieces

3. What causes a gyre to form?
   a. garbage flows from the Pacific Rim
   b. fish and sea turtles eat too much plastic
   c. water currents move around in a clockwise motion
   d. water currents move away from the center point

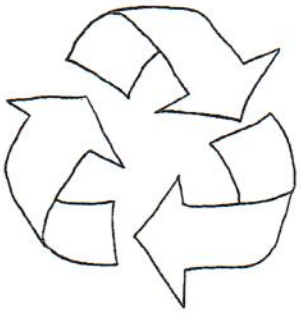
4. How did the garbage get there?
   a. Alaskan researchers found it there.
   b. It flowed there from the Pacific Rim.
   c. No one knows where it came from.
   d. Fishermen dumped it there.

5. What contaminates the waters?
   a. baby sea turtles
   b. small sea creatures
   c. recycled water bottles
   d. microplastics

6. Why are microplastics so dangerous?
   a. The microplastics carry a toxic chemical.
   b. The microplastics are sharp and hurt sea life.
   c. The sea life mistake the small objects for food.
   d. The microplastics are hot like pepper.

7. What is one factor that makes it hard to clean up?
   a. There is nowhere to put the garbage once collected.
   b. Scientists are using it for research.
   c. Too many nations are fighting to pay for it.
   d. The clean up nets could also catch small sea life.

8. Which of the following is **not** a way that we can help?
   a. recycle plastics
   b. use only plastic straws
   c. educate others
   d. don't litter



Skills Test

Choose the best answer.

1. Which statement below is the main idea of the article, "The Great Pacific Garbage Patch"?
   a. The Great Pacific Garbage Patch is double the size of Texas.
   b. The Great Pacific Garbage Patch is too difficult to clean up.
   c. The Great Pacific Garbage Patch is harming sea life and needs our help.
   d. Microplastics are very small pieces of plastic.

2. Which of the following is **not** a reason that the Great Pacific Garbage Patch was formed?
   a. People sometimes do not throw their trash in the proper bins.
   b. Scientists broke down the plastics to study the harmful affects to sea life.
   c. Fishing boats have lost plastic fishing equipment and nets in the water.
   d. The water currents have carried the garbage to the North Pacific Gyre.

3. **According to the article**, what is one reason it is so difficult to clean up the Garbage Patch?
   a. Nations around the world are not interested in cleaning it up.
   b. The Garbage Patch is not a big enough problem to worry about yet.
   c. Scientists believe the Garbage Patch will eventually flow away with the current.
   d. The cost to clean up the Garbage Patch is too much for one nation to handle.

4. Which evidence from the article supports your answer to the previous question?
   a. Due to the size and location, no nation will take the responsibility or pay the massive expense of cleaning it.
   b. Over time, the garbage breaks down due to the wind, rain, and waves.
   c. We can help by preventing more garbage from getting in our waterways.
   d. Plastic is not biodegradable which means they never completely break down over time.

5. According to the article, what does biodegradable mean?
   a. Biodegradable items are the items that are found in the Garbage patch.
   b. Biodegradable items are those that will completely break down over time.
   c. Biodegradable items are those items that are only used by fishermen.
   d. Biodegradable items are those items that never fully break down.

6. Which sentence from the article provides a **detail** to support your answer to the previous question?
   a. Many of these tiny particles are the same size as small sea animals.
   b. Never throw trash out of boats or alongside roadways.
   c. The sea creatures are essential to the ocean's food web.
   d. Plastic is not biodegradable which means they never completely break down over time.