

Grade 5

Opinion Writing

Why is it important to keep garbage and plastics out of water?

What can a country do to help?

What can you do to help?



Name _____

Opinion Essay: Keeping Garbage and Plastics out of Water

Directions:

You are going to be writing an essay that will include:

- Descriptions of the conditions in water affected by garbage and plastics.
- What countries can do to help improve the conditions in water.
- What you as an individual can do to improve the conditions in water.

In your writing response, be sure to:

- Clearly organize your writing and express what you have learned.
- Accurately and completely answer the questions being asked.
- Support your responses with evidence and details from the texts.
- Write in complete sentences using correct spelling, grammar, capitalization, and punctuation.

Brainstorm

What do you think some effects of garbage and plastics in water are?

Plastic Pollution

What's the problem?

By Allyson Shaw

A [sea turtle](#) swims through the water and spots a white blob floating near the surface. “Yum!” it thinks. “A [jellyfish!](#)” Chasing after its dinner, the turtle swallows the item. But the floating blob isn't a jelly—it's a plastic bag that could make the sea turtle sick.

This sea creature isn't alone: Over 700 species of marine animals have been reported to have [eaten or been entangled in plastic](#). Scientists think that the amount of plastic in the ocean might triple by 2050—and that would mean seriously bad news for the ocean and the creatures that live there. But by understanding the issue and taking action, you can help stop that from happening.

First, let's get real: Not all plastic is bad. Bike helmets, car airbags, and many medical supplies made with plastic save lives. Plastic water bottles can bring clean drinking water to people who don't have it, and plastic straws can help people with disabilities drink.

The problem is that most of us use and then toss way more plastic than we need: things like grocery bags, drink bottles, straws, food wrappers, and plastic packaging around toys. This kind of plastic that's used only once before being thrown away is called **single-use plastic**, and it makes up more than 40 percent of all plastic trash.

Where does the plastic go?

That's *a lot* of trash. Scientists think that 8.8 million tons of plastic winds up in the ocean every year—that's as if you stacked up five plastic grocery

bags full of trash on top of each other on every foot of coastline in the world.

How does it get into the sea? Plastic left on the ground as litter often blows into creeks and rivers, eventually ending up in the ocean. And because plastic trash is different from other types of waste—it doesn't decompose back into nature like an apple core or a piece of paper—it stays in the ocean forever. That means discarded fishing nets and six-pack rings can entangle animals; harmful straws and grocery bags can be mistaken as food.

"Plastic Pollution" Questions

1. Why is it important to keep garbage and plastics out of water?

2. What can a country do to help?

Evidence/Quote:

3. What can you do to help?

Evidence/Quote:

Ocean Pollution

Each year, billions of pounds of trash and other pollutants enter the ocean.

Where does this pollution come from? Where does it go? Some of the debris ends up on our beaches, washed in with the waves and tides, some sinks, some is eaten by marine animals that mistake it for food, and some accumulates in [ocean gyres](#). Other forms of pollution that impact the health of the ocean come from a single, known sources, such as [oil spills](#), or from accumulation of many dispersed sources, such as fertilizer from our yards.

The majority of pollutants going into the ocean come from activities on land. Natural processes and human activities along the coastlines and far inland affect the health of our ocean. One of the biggest sources is called [nonpoint source pollution](#), which occurs as a result of runoff. Nonpoint source pollution includes many small sources, like septic tanks, cars, trucks, and boats, plus larger sources, such as farms, livestock ranches, and timber harvest areas. Pollution that comes from a single source, like an oil or chemical spill, is known as [point source pollution](#). Often these events have large impacts, but fortunately, they occur less often. Discharge from faulty or damaged factories or water treatment systems is also considered point source pollution.

Nutrients and algal blooms

Sometimes it is not the type of material, but its concentration that determines whether it is a pollutant. For example, the nutrients nitrogen and phosphorus are essential elements for plant growth. However, if they are too abundant in a body of water, they can stimulate an overgrowth of algae, triggering an event called an [algal bloom](#). Some algal blooms can be [harmful](#) to humans or marine life. Excess nutrients entering a body of water, either through natural or human activities, can also result in [hypoxic or dead zones](#). When large amounts of algae sink and decompose in the water, the decomposition process consumes oxygen and depletes the supply available to healthy marine life. Most of the marine species that live in these areas either die or, if they are mobile (such as fish), leave the area. Habitats that would normally be teeming with life become, essentially, biological deserts.

Marine debris

[Marine debris](#) is another persistent pollution problem in our ocean. Marine debris injures and kills marine life, interferes with navigation safety, and poses a threat to human health. Our oceans and waterways are polluted with a wide variety of marine debris, ranging from tiny [microplastics](#) to derelict fishing gear and abandoned vessels. Today, there is no place on Earth immune to this problem. A majority of the trash and debris that covers our beaches comes from storm drains and sewers, as well as from shoreline and recreational activities. Abandoned or

discarded fishing gear is also a major problem because this trash can entangle, injure, maim, and drown marine wildlife and damage property.

Impact of seafood

Pollution can affect the food we eat. Heavy metals and other contaminants can accumulate in seafood and make it harmful to eat. More than one-third of the shellfish-growing waters of the United States are adversely affected by coastal pollution. NOAA monitors this contamination through the [Mussel Watch](#) program and also provides seafood safety tips through the [FishWatch](#) program.

"Ocean Pollution" Questions

1. Why is it important to keep garbage and plastics out of water?

2. What can a country do to help?

Evidence/Quote:

3. What can you do to help?

Evidence/Quote:

Plastic Oceans: What is the impact of pollution in the sea?

<https://www.youtube.com/watch?v=cwTDvqagPIM>

1. How long can an ocean hang onto plastic? _____

2. How many pieces of plastic were found in the bird's stomach?

3. How many pieces of plastic are estimated to enter the world's oceans daily? _____

4. What groups of people worked with the scientists to gain information? _____

5. How many species are affected worldwide by marine debris?

6. What do plastics do over years of laying on the beach? Why is this dangerous? _____

7. It is estimated that fish in the north pacific consume up to how much plastic a year? _____

8. How can this plastic problem affect humans?

After viewing the video, respond to the following questions:

1. Why is it important to keep garbage and plastics out of water?

2. What can you do to help?

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Opinion Essay: Keeping Garbage and Plastics out of Water

Paragraph 1 (Introduction):

- Background Information
 - Attention Getter
 - Where is pollution in water found?
 - What does pollution in water affect (in water)?
 - What/who does pollution in water affect (out of water)?
 - Your opinion statement

Paragraph 2:

- Why is it important to keep garbage and plastics out of water?
 - Give details from the articles you read, and video you viewed.
- Who should help?

Paragraph 3:

- What can an individual do to help? What can you do to help?
 - Way to help #1 with evidence. Explain your evidence.
 - Way to help #2 with evidence. Explain your evidence.
 - Way to help #3 with evidence. Explain your evidence.

Paragraph 4 (Conclusion):

- How does helping keep garbage and plastic out of water make you feel?
- Why is it important to keep garbage and plastic out of water?

How can you take what you learned from the articles and video and apply it to your life?

Graphic Organizer

Paragraph 1: Introduction
Attention Getter
Where is pollution in water found?
What does pollution affect (in water)?
What does pollution affect (out of water)?
Opinion Statement

Paragraph 2

Why is it important to keep garbage and plastics out of water?

Article/Video

Detail/Quote (at least one from each article/video)

Who should help?

Paragraph 3

What can an individual do to help?

What can you do to help?

Way to help #1

Evidence

Way to help #2

Evidence

Way to help #3

Evidence

Paragraph 4: Conclusion

How does helping keep garbage and plastic out of water make you feel?

Why is it important to keep garbage and plastic out of water?

How can you take what you learned from the articles and the video and apply it to your life?