

# MARINE DEBRIS: MICROPLASTICS / LESSON OVERVIEW

## Objectives

### The students will:

- Learn about plastic pollution;
- Identify different causes of microplastic pollution;
- Be able to explain impacts of microplastic pollution on marine wildlife;
- Describe ways to prevent plastic pollution.

## Lesson Summary

### Part 1. Introduction to Plastic Pollution

Students will learn the history of plastic and how it is not biodegradable creating concerns for environmental scientists. To help students realize how much plastic they use every day they will make a list of the things they use that are plastic or contain it in the item.

### Part 2. What are Microplastics?

Students will learn what microplastics are and how they are formed. Along with this they will discover how plastic is made and the variety of items that contain plastic that may be surprising to them such as some items of clothing.

### Part 3. Pollutants

Students learn what classifies something as a pollutant and a few of the pollutants that are found in plastic materials. They will also learn how different chemicals in various pollutants affect the marine life that live in the ocean.

### Part 4. A Growing Problem

Students will learn the definition of bioaccumulation and how this relates to plastic materials. Students will also get a glimpse of how the chemicals from plastics affect marine life internally and how they can help reduce plastic waste.

### Activity 1. Product Investigation

This activity will allow students to identify microplastics in consumer products using laboratory procedures.

### Activity 2. Letter to Congress

This activity will encourage students to familiarize themselves with legislative processes and let their voice be heard about important environmental issues.

## Materials

- Facial scrub or wash (with polyethylene microbeads)
- Jar or container (2)
- Coffee filters
- Rubber band
- Paper and Pen
- Envelope
- Warm water
- Magnifying glass
- Spoon
- Gloves, aprons, and goggles (Optional)
- Postage Stamp