

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 behind plastic and what it is primarily used in. They will also get to discover several items that contain plastic that people might not think does. There are several alternatives for replacing plastic in certain items that contain it, they just are not being used.

Part 2. What are Microplastics?

Students will discover what microplastics really are and they are created from the erosion and weathering of larger pieces of plastic.

Part 3. Pollutants

Students will learn about the different chemical that can be found in plastics and how they affect marine ecosystems.

Part 4. A Growing Problem

Students will discover how these microplastics accumulate over time creating a much bigger problem through a hands-on visual class demonstration.

Activity 1. Product Investigation

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

Materials

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| • Facial scrub or wash (with polyethylene microbeads) | • Warm water |
| • Jar or container (2) | • Magnifying glass |
| • Coffee filters | • Spoon |
| • Rubber band | • Gloves, aprons, and goggles (Optional) |