



PROJECT OCEANOLOGY



Marine Debris Shore Program

Overview

Students will learn about the problem of marine debris and participate in a beach-clean up. On the beach students will work in small groups to define the problem of marine debris by discussing how it ends up on the beach and in the water. They will brainstorm potential solutions-ways to reduce the amount of marine debris- and evaluate those solutions as a group.

Performance Expectations (High School)

HS-ESS3-3. Create a computational simulation to illustrate the relationships among the management of natural resources, the sustainability of human populations, and biodiversity. *Students will measure and categorize marine debris, and will participate in a global citizen science effort by logging it through the CleanSwell app.*

Science and Engineering Practices

Using Mathematics and Computational Thinking: Create a computational model or simulation of a phenomenon, designed device, process, or system. *Students will graph their findings and demonstrate human impact on natural resources. Students will interpret their findings/data and present it to the class.*

Crosscutting Concepts

Stability and Change: Change and rates of change can be quantified and modeled over very short or very long periods of time. Some system changes are irreversible. *Students will identify short and long term effects of marine debris. Students will identify biodegradable and non-biodegradable items.*

Disciplinary Core Ideas

ESS3.C: Human Impacts on Earth Systems: The sustainability of human societies and the biodiversity that supports them requires responsible management of natural resources. *Students will brainstorm solutions that can be implemented in their classroom, school, and communities. Students will identify sustainable practices to prevent and remove marine debris.*

