



## SPLASH Educational Programming

### Introduction

SPLASH educators are committed to empowering our next generation of environmental stewards. Through our hands-on, experiential approach, we will bring TEKS-supported curricula to the classroom in-person or virtually. Plan a cleanup with us to dive even further into data collection while making a positive impact on local ecosystems!

Below is a list of the educational programming provided by SPLASH. An educator will join your classroom, in-person or virtually, to walk students through an experiential lesson related to marine debris and environmental stewardship. Programming includes interactive lessons, field and classroom investigations, and extension activities for continued student engagement. We are committed to bringing engaging curricula to your school and will tailor the lessons in order to meet each student's needs.

*Note: Educators and students will be required to complete pre- & post-programming surveys.*

*We thank you in advance for your feedback!*

### Table of Contents

Topic	Program	Description	Grade Level
<b>Ocean Ecology &amp; Plastics</b>	<a href="#"><u>Introduction to Marine Debris</u></a>	Learn about the origin of plastics and trash pollution in Texas and how to make a positive impact.	5-8 9-12
<b>Learning from Data</b>	<a href="#"><u>Community Science &amp; Trash Transect Survey</u></a>	Get trained in proper transect survey protocols & learn about the importance of community science in combating marine debris off Texas coasts.	5-8 9-12
	<a href="#"><u>Sustainability &amp; Trash Audit Survey</u></a>	We will facilitate a trash audit of your school's grounds. Students will collect data and determine effective solutions to better waste management and marine debris mitigation.	5-8 9-12
<b>Field Experience</b>	<a href="#"><u>Beach Cleanup Experiential Lesson</u></a>	Come with us on a trip to a local or coastal cleanup where we will collect data to better understand Texas's plastic pollution problem. Students will learn about marine debris while out in the field!	5-8 9-12

### Grade Level TEKS by Lesson

Program	5th	6th	7th	8th	Aquatic Science	Biology	Environmental Systems
<b>Introduction to Marine Debris</b>	1A, 1B 2A-D, 2F 3C 4 9C	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B	1A, 1B 2A, 2C, 2E 3A, 3D 11B, 11C	1A, 1B 2E-H, 2J 3A, 3B, 3D-F 11A, 11B 12A-E	1A, 1B 2F-H 3A, 3B, 3D 12C, 12E	1A, 1B 2E-I, 2K 3A, 3B, 3D, 3E, 5F 9A, 9E, 9I, 9J
<b>Community Science &amp; Trash Transect Survey</b>	1A, 1B 2A-D, 2F 3C 4 9C	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B	1A, 1B 2A, 2C, 2E 3A, 3D 11B, 11C	1A, 1B 2F-H, 2J 3A, 3B, 3D-F 4C 12A-E	1A, 1B 2F-H 3A, 3B, 3D 12E	1A, 1B 2E-I, 2K 3A, 3B, 3D, 3E 5F 9A, 9E, 9I, 9J
<b>Sustainability &amp; Trash Audit Survey</b>	1A, 1B 2A-D, 2F 3C 4 9C	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B 11B, 11C	1A, 1B 2E-H, 2J 3A, 3B, 3D-F 11A 12A-E	1A, 1B 2F-H 3A, 3B, 3D 12E	1A, 1B 2E-G, 2I, 2K 3A, 3B, 3D, 3E 5E, 5F 9A, 9E, 9G, 9I, 9J
<b>Beach Cleanup Experiential Lesson</b>	1A, 1B 2A-D, 2F 3C 4 9C	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B	1A, 1B 2C 3A, 3D 4A, 4B	1A, 1B 2A, 2C, 2E 3A, 3D 4A, 4B 11B, 11C	1A, 1B 2E-H, 2J 3D-F 4C 12A-E	1A, 1B 2F-H 3A, 3B, 3D 12E	1A, 1B 2E-I, 2K 3A, 3B, 3D, 3E 5F 9A, 9E, 9I, 9J

## Lesson Synopsis

### Introduction to Marine Debris

**Time** 120 minutes

**Virtual** 70 minutes

Students will be introduced to the marine debris issue off the Texas coast, focusing on the plastic pollution problem. They will investigate the characteristics of trash to better understand how trash enters an environment, what its impacts are on habitats, wildlife, & humans and learn ways in which they can be part of solutions.

#### Essential Questions

What is marine debris and how can I help to mitigate the problem?

How do man made products affect the Texas marine environment?

#### Objectives

Students will...

- List the 5 characteristics that describe marine debris and provide examples.
- Name 2 effects marine debris has on coastal ecosystems.
- Collect and record data to describe quantitative and qualitative characteristics of trash items.
- Use evidence to determine the likelihood of different materials becoming marine debris.
- Discuss ways in which they can positively impact the marine ecosystems and combat plastic pollution.



## Community Science & Trash Transect Survey

**Time** 80 minutes

**Virtual** 60 minutes

Students will participate in community science and contribute to SPLASH's ongoing database of marine debris on Texas coasts by learning about the issue, exploring ways they can contribute, and conducting sample transect surveys. This lesson fosters student learning of the scientific process through community science and works in conjunction with a field experience to a local or beach clean up. *(While the field experience is not required, it is highly recommended as a way for students to engage with an ecosystem and gain firsthand experiences of the marine debris problem off the Texas coast).*

### Essential Question

How can I contribute to mitigating the marine debris problem on Texas coastlines?

### Objectives

Students will...

- Explain the importance of community science.
- Conduct a trash transect survey using proper safety and investigation protocols.
- *In field Transect Survey: Participate in community science and contribute to a deeper understanding of the marine debris issue off Texas coasts.*



## **Sustainability & Trash Audit Survey**

**Time** 90 minutes

**Virtual** 40-50 minutes

Students will be introduced to the issue of marine debris and learn about sustainable ways in which they can effectively mitigate waste at home, in their school, and even their community. Students will conduct a trash audit following the scientific process and then use this information to develop a PSA providing effective solutions for their community.

### **Essential Question**

How can I contribute to mitigating marine debris off Texas coastlines?

### **Objectives**

Students will...

- Better understand what trash items contribute to marine debris. See what items can and can't be recycled.
- Conduct a trash audit using proper safety and investigation protocols.
- Identify and develop sustainable solutions for reducing waste in their locale.
- Implement local solutions for their classroom or school to better manage their waste disposal.

## Beach Cleanup Experiential Lesson

**Time** 3 hours

Students will participate in community science and contribute to SPLASH's ongoing database of marine debris on Texas coasts. Students will learn about marine debris and its impacts, conduct a trash transect survey, and gain firsthand knowledge of ways to positively impact the world around them.

### Essential Questions

What is marine debris and how can I help?

### Objectives

Students will...

- Understand marine debris and its effects on the natural environment.
- Conduct a trash transect survey using proper safety and investigation protocols.
- Participate in community science and contribute to a deeper understanding of the marine debris issue off Texas coasts.

