

# Ocean Challenge

## Recommended Lesson Plans

Middle School/Ages 11-13

In addition to the featured curriculum and learning resources you can find [here](#), we also wanted to share some relevant and helpful lesson plans by grade and age range to help enhance your team's learning through the Ocean Challenge. Explore these lessons below that range in duration and topical focus.



Name and Source	Description	Duration, Grade/Age
<p><b>The Need is Mutual: The Importance of Biological Interactions</b></p> <p>From Nature Works Everywhere by The Nature Conservancy</p>	<p>In this lesson, students learn to categorize organisms by their relationships and biological interactions. Students are introduced to the terminology that scientists use to characterize biological interactions. The lesson is reinforced by a range of examples from coral reefs.</p>	<ul style="list-style-type: none"><li>• Two 45-minute sessions</li><li>• Grades 6-8</li><li>• Ages 11-14</li></ul>
<p><b>What is a Coral Reef?</b></p> <p>From MOOREA Coral Reef LTER Education</p>	<p>In this lesson, students will gain an understanding of the basic components of a coral reef ecosystem, with emphasis on specific factors crucial to reef health and trophic level relationships among key organisms. Also included in the lesson is an opportunity for students to learn about traditional, Polynesian culture and the native uses of coral reef resources.</p>	<ul style="list-style-type: none"><li>• Two 50-minute sessions</li><li>• Grades 6-8</li><li>• Ages 11-14</li></ul>
<p><b>Where's the Beach? Investigating Coastline Erosion Protection</b></p> <p>From Nature Works Everywhere by The Nature Conservancy</p>	<p>In this lesson, students compare strong construction materials with the less robust oyster reefs. Using an online tool to find historic tide data in a selected coastal location, students use a hands-on model to explore the use of different materials in protecting coastlines.</p>	<ul style="list-style-type: none"><li>• Four 45-minute sessions</li><li>• Grades 6-12</li><li>• Ages 11-18</li></ul>
<p><b>TED-Ed Lesson: The nurdles' quest for ocean domination</b></p> <p>From TED-Ed</p>	<p>In this lesson, Kim Preshoff details the nurdles' quest for ocean domination, shedding light on the particular features that allow these pervasive pollutants to persist for entire generations. Nurdles are the tiny, factory-made pellets that form the raw material for every plastic product that we use, from toys to toothbrushes. And while they look pretty harmless on land, they can really wreak havoc on our ocean.</p>	<ul style="list-style-type: none"><li>• 15 minutes or more</li><li>• Grades 3-12</li><li>• Ages 8-18</li></ul>



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<b>TED-Ed Lesson: How Deep is the Ocean?</b> From TED-Ed	In this lesson, Tech Insider's animation on the depth of the ocean puts the actual distance into perspective, showing a vast distance between the waves we see and the mysterious point we call Challenger Deep.	<ul style="list-style-type: none"><li>• 15 minutes or more</li><li>• Grades 3-12</li><li>• Ages 8-18</li></ul>
<b>TED-Ed Lesson: How Big is the Ocean?</b> From TED-Ed	In this lesson, Scott Gass reminds us of the influence humans have on the ocean and the influence it has on us. While the Earth's oceans are known as five separate entities, there is really only one ocean. So, how big is it? As of 2013, it takes up 71% of the Earth, houses 99% of the biosphere, and contains some of Earth's grandest geological features.	<ul style="list-style-type: none"><li>• 15 minutes or more</li><li>• Grades 3-12</li><li>• Ages 8-18</li></ul>

## Additional sites with great resources to explore:

- [Smithsonian Ocean](#)
- [NOAA Ocean Education](#)
- [National Geographic Ocean Education](#)
- [Nature Works Everywhere](#)
- [Scholastic Ocean Collection](#)
- [TeAch-nology Ocean Lesson Plans](#)