

# NOAA Ship *Okeanos Explorer* Pre- and Post- Visit Classroom Activities

To ensure the highest quality educational experience from your tour onboard the NOAA Ship *Okeanos Explorer*, we encourage you to explore some of the pre-and post- visit activities listed below.

## Pre-Visit Activities

### [Why Do We Explore? Keynote Address](#)

Share this 10-minute video with your students during which three premier ocean scientists share their personal and professional perspectives on why we explore our ocean.

[http://oceanexplorer.noaa.gov/okeanos/explorations/10index/background/edu/media/keynote\\_wdwe\\_video.html](http://oceanexplorer.noaa.gov/okeanos/explorations/10index/background/edu/media/keynote_wdwe_video.html)

### [NOAA Ship \*Okeanos Explorer\* – Meet the Ship](#)

In preparation for your tour please review the information provided online to introduce your students to the NOAA Ship *Okeanos Explorer*.

<http://oceanexplorer.noaa.gov/okeanos/about.html>

### [NOAA Ship \*Okeanos Explorer\* 2017 Field Season Overview](#)

From January through September 2017, a team of NOAA and external partners will embark on a journey with NOAA Ship *Okeanos Explorer* to investigate and document deep-water environments in and around the southern portions of the Pacific Remote Islands Marine National Monument (PRIMNM), Phoenix Islands Protected Area (PIPA), Tokelau, and Cook Islands, American Samoa and Samoa, the Johnston Atoll Unit of the PRIMNM, and Musician Seamounts north of the Hawaiian archipelago. A multidisciplinary team of scientists, technicians, and engineers – both on board the ship and on shore – will conduct undersea mapping and remotely operated vehicle (ROV) explorations of the geological, biological, archaeological, and chemical features of these vast areas. Learn more about these explorations on the overview web page.

<http://oceanexplorer.noaa.gov/okeanos/explorations/2017-overview/welcome.html>

### [Ocean Explorer Lesson: Earth's Ocean is 95% Unexplored – So What?](#)

A Lesson for Grades: 5-6, adaptable to older students (Life Science/Earth Science)

In this lesson, students describe at least three different deep ocean ecosystems, explain the reasons for exploring Earth's deep ocean, and explain how deep ocean ecosystems may benefit humans. Focus: Importance of deep ocean exploration.

[http://oceanexplorer.noaa.gov/okeanos/explorations/10index/background/edu/media/so\\_what.pdf](http://oceanexplorer.noaa.gov/okeanos/explorations/10index/background/edu/media/so_what.pdf)

### [Exploring LIVE with the NOAA Ship \*Okeanos Explorer\*](#)

Grades 5-12 (Physical Science/Earth Science)

In this lesson, students learn how to access the Ocean Explorer website and a live video feed of an *Okeanos Explorer* expedition to explore along with the ocean science community in real time. Focus: How students can become active ocean explorers while viewing live *Okeanos Explorer* expeditions.

<http://oceanexplorer.noaa.gov/okeanos/edu/exploringlive2013lesson.pdf>

### [OceanAGE Careers](#)

From underwater pilots to ocean explorers, these marine mentors provide students with first-hand knowledge of exciting careers through video interviews and career profiles. An *Explorers-in-Training* section provides first-hand information on the experiences of young explorers.

On this page you will also find [Current: The Journal of Marine Education: A Special Issue Featuring: A Closer Look at Ocean Careers through the NOAA Ship \*Okeanos Explorer\*: A “Case Study.”](#) In this issue, the NOAA Ship *Okeanos Explorer* “comes alive,” capturing the enthusiasm of the ship’s officers, crew, and explorers as they live and work onboard the nation’s first dedicated ship for ocean exploration.

<http://oceanexplorer.noaa.gov/edu/oceanage/welcome.html>

<http://oceanexplorer.noaa.gov/edu/oceanage/current.html>

## Post-Visit Activities

### [NOAA Ship \*Okeanos Explorer\* Education Materials Collection](#)

This Collection includes standards-based lessons for grades 5-12 and many hands-on activities. Volume 1: *Why Do We Explore?* guides student investigations into modern reasons for ocean exploration. Volume 2: *How Do We Explore?* guides additional investigations into exploration strategies and technologies used aboard the *Okeanos Explorer*.

<http://oceanexplorer.noaa.gov/okeanos/edu/welcome.html>

### [NOAA Ship \*Okeanos Explorer\* Expedition Education Modules](#)

Expedition Education Modules (EEMs) are designed to assist educators with bringing expeditions and discoveries of NOAA Ship *Okeanos Explorer* into classrooms. To support use of the live video feeds and enable educators to design their own instructional strategies for classrooms around particular expeditions as they are happening, we have compiled within this EEM lessons, multimedia tools, and a wealth of other resources developed just for educators to convey the ship’s deep-sea exploration strategies and exciting discoveries.

<http://oceanexplorer.noaa.gov/edu/modules/welcome.html>



Recent Expedition Education Modules related to this year's expedition include:

- [Deepwater Wonders of Wake: Exploring the Pacific Remote Islands Marine National Monument](http://oceanexplorer.noaa.gov/edu/modules/welcome.html)  
<http://oceanexplorer.noaa.gov/edu/modules/welcome.html>
- [2016 Deepwater Exploration of the Marianas](http://oceanexplorer.noaa.gov/oceanos/explorations/ex1605/background/edu/edu.html)  
<http://oceanexplorer.noaa.gov/oceanos/explorations/ex1605/background/edu/edu.html>
- [2016 Hohonu Moana: Exploring Deep Waters off Hawai'i](http://oceanexplorer.noaa.gov/oceanos/explorations/ex1603/background/edu/edu.html)  
<http://oceanexplorer.noaa.gov/oceanos/explorations/ex1603/background/edu/edu.html>

### **Digital Atlas**

This interactive map allows you to search for NOAA Ocean Exploration cruises by year and access data and information for specific cruises, as available. Type *Okeanos Explorer* into the Text Search box and find all of the ship's expeditions, then click on the colored dots for more information.

[https://www.ncddc.noaa.gov/website/google\\_maps/OE/mapsOE.htm](https://www.ncddc.noaa.gov/website/google_maps/OE/mapsOE.htm)

### **Tune in to NOAA Ship *Okeanos Explorer* Live Video from Your Mobile Device**

We are happy to unveil a new mobile app (for iOS and Android devices) that will allow you to bring the excitement of ocean discovery directly to your smart phone or tablet!

<http://oceanexplorer.noaa.gov/oceanos/explorations/ex1603/background/mobile-app/welcome.html>

### **NOAA Ocean Explorer YouTube Channel**

Join the NOAA Office of Ocean Exploration and Research as we explore the unknown reaches of the deep ocean through our featured highlight videos. We'll deploy new and exciting technologies, search never-seen-before shipwrecks, encounter spectacular underwater geology, and discover curious and previously unknown organisms.

<https://www.youtube.com/oceanexplorergov>

### **Expedition Webinars for Educators**

Webinars are online presentations that allow us to introduce the science behind upcoming expeditions and the associated Education Expedition Module, lessons, and classroom resources to enable teachers and students to participate in the expedition online.

Past webinars are archived on the Ocean Explorer website and upcoming webinars will be advertised on the [NOAA OER Education list serv](#) and the Ocean Explorer website.

<http://oceanexplorer.noaa.gov/edu/development/webinars/welcome.html>

[http://oceanexplorer.noaa.gov/backmatter/email\\_update.html](http://oceanexplorer.noaa.gov/backmatter/email_update.html)

### **Educator Professional Development Opportunities**

Here you will find information about Ocean Explorer onsite and online teacher professional development opportunities.

<http://oceanexplorer.noaa.gov/edu/welcome.html#develop>

