

Self-Guided Exploration for Educators

NOAA Ocean Explorer Web site

<http://www.oceanexplorer.noaa.gov>

The award-winning Ocean Explorer Web site is an enormous offering (kind of like the ocean it deals with) and so it can be somewhat overwhelming when first encountered! Like the ocean, though, it is well worth the effort to dive in and explore.

This self-guided exploration is designed to take you to different locations on the Web site which can support the lessons you select from the Web site. It is intended to help you get your feet wet and learn more about what is available on this incredible educational resource. It may be used in conjunction with our online Web tutorial. The Web site is constantly updated with information about new expeditions, live ocean career Web chats, additional professional development opportunities, new video and images, and much more, so visit often!

Section of OE Web Site	Exploring the Web Site	What Did You Find?	How Can You Use This Information?
Home Page	Look at the Special Features column on the right side of the home page. Which of the featured Video and Photo highlights could you use in your classes? Can you find the Ocean Explorer You-Tube Channel?		
Search Feature on Home Page	Type in “Magic Mountain” in the Search Feature on the Ocean Exploration home page. Click on the first result at the top of the page, NOAA Ocean Explorer: Submarine Ring of Fire 2002. On the Magic Mountain Virtual site, run your cursor over the false color map and explore several of the chimney fields by clicking on the names in the image. How could you and your students use this multimedia feature?		
Explorations	Click on the Explorations link and find an expedition which took place off the East Coast of the U.S.		
Explorations	Find an expedition which took place off the West Coast of the U.S.		

Section of OE Web Site	Exploring the Web Site	What Did You Find?	How Can You Use This Information?
Explorations	Find an expedition which took place far from the U.S.		
Explorations	On the front page, under Explorations, look for the NOAA Ship <i>Okeanos Explorer</i> : “America’s Ship for Ocean Exploration”. What is telepresence and how is it being used?		
Explorations	Go to the Hudson Canyon 2002 Expedition; find the false-color image of Hudson Canyon on the expedition’s home page. How deep is the canyon in the shelf? How might you use this in your classroom?		
Explorations	Go to the Gulf of Mexico Habitats 2003 Expedition; find the September 26 image of Alderdice Bank. What is the composition of the two towers? Hint: Look at the expedition logs on the left.		
Explorations	Go to the Galapagos Rift 2002 Expedition and find the multibeam bathymetric image of a ridge formed by seafloor spreading. What geological feature was split into two pieces as the two plates spread apart?		
Explorations	Go to the Submarine Ring of Fire 2006 Expedition. Click on the April 29 log. Watch the videos and read the log. This was the first time in human history that lava was observed extruding from a submarine volcano. Which of your education standards could you meet with this information?		

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Explorations	Is there an expedition underway now? Scan through the Mission Plan, Background Essays, and Daily Logs posted to date. Click on the “Ask an Explorer” link and submit a question!		
Explorations - Careers	Go to the New Zealand American Submarine Ring of Fire 2007 Expedition. Click on Explorers on the left side of the main page. What did Mike Hacking do on this expedition? How about Alan Duester? What other skills might be necessary on board an ocean research vessel?		
Gallery	Look through the photos and videos available in the Gallery section. What images can you find that show various forms of technological innovation?		
Gallery	In the <i>Learning Ocean Science through Ocean Exploration</i> curriculum, Lesson Plans 13 and 14 focus on light and color in the sea. Find images of red or orange vertebrates and invertebrates. How might these be useful in your teaching? What other images can you find that would be useful in your classroom?		
Technology	Using the search engine in the top right corner of the home page, what new information can you learn about sonar mapping?		
Technology	What National Science Education Standards and/or Ocean Literacy Essential Principles and Fundamental Concepts could you address in your teaching using the Technology section that specifically addresses capabilities of vessels, submersibles, diving methods, and tools used in deep-sea exploration? Hint: use the lesson plan search engine in the Education Section of the Web site.		

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History	How could you use information from the History section to address National Science Education Standard <i>History and the Nature of Science</i> (NSES Table 6.7) in your classes?		
History	Click on the History page. Under the link “Why Explore”, who said “...beneath the waves, there are many dominions yet to be visited, and kingdoms to be discovered; and he who venturously brings up from the abyss enough of their inhabitants to display the physiognomy of the country, will taste that cup of delight,...”?		
Education - Lesson Plans	Search for at least two lesson plans related to a topic you teach. What National Science Education Standards and/or Ocean Literacy Essential Principles and Fundamental Concepts can be covered using these lessons?		
Education	Go to the Curriculum link from the Education section of the home page. Click on the link for the <i>Learning Ocean Science through Ocean Exploration</i> curriculum. Next click on Section 2 – Mapping the Ocean Floor: Bathymetry. How might you use this background information and these lessons in conjunction with the information from the Hudson Canyon 2002 Expedition?		
Education	Go to the OceanAGE section of the Education page. What are the five main features in an ocean career profile? Which careers align with subjects/topics you teach?		

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Education	Select an expedition year and select a Signature Expedition. Click on the Education link on the right hand side to view that exploration's Expedition Education Module. What are the five main components of the Expedition Education Module? How could you and your students make use of each of these components? Which would be appropriate for your use and which, if any, for your students'?		
Education	Click on the "Multimedia Discovery Missions" link in the Education section. Each Multimedia Discovery Mission contains a streaming video narrated lesson, an "Explore" section, and interactive activities. Choose one of the topics that you teach. Which of these features could you use in your teaching? How might you use it?		
<i>Okeanos Explorer</i>	Click on Education from the home page. Under Professional Development on the right side of the Education page, can you find the professional development opportunities that are currently available to you?		
<i>Okeanos Explorer</i>	Click on Education from the home page. Under Education Materials on the right hand side, go to the <i>Okeanos Explorer</i> Education Materials Collection and click on Ship Tracker. Where is the <i>Okeanos Explorer</i> today? Click on a cruise. What data or images can you find that might be useful in your classroom instruction?		
Special Features	Return to the right hand column of the OE home page. Look for Twitter, Flickr and RSS Feeds. Are there ways you can use these tools to help you with your teaching?		