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# EarthComm Earth's Fluid Spheres: Oceans and Your Community Activity 1 This investigation will help you to:

- · Oceans of the World
- The Warm and the Cold Ocean
- The Circulation of the Oceans
- The Wind Stress on the Surface of the Ocean
- The Coriolis Effect
- To learn more about careers in oceanography, visit the following web sites:
- To learn more about harnessing wave power, visit the following web site:

### Oceans of the World

- Ocean of the World Geography About.com
  Site contains links to further information on the Arctic, Atlantic, Indian, Pacific, and Southern Oceans. Click on the ocean of your choice to be given a list of more links that contain information such as political maps and maps of the ocean floor.
- Exploring the Ocean Basins with Satellite Altimeter Data NOAA National Geophysical Data Center
   Online article reviews physical features of the ocean basins and the technology that scientists use to study these basins.
   This site also contains several images to explain how the technology works.
- CIA, The World Factbook

Provides detailed information about each ocean, including location, characteristics of water masses in the ocean, and how the ocean influences climate. Click on the ocean of your interest for more information.

- Atlantic Ocean
- o Pacific Ocean
- o Indian Ocean
- o Arctic Ocean
- o Southern Ocean

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## The Warm and the Cold Ocean

• What is Climate? - TOPEX/Poseidon, Jet Propulsion Lab, NASA

First window defines climate. After reading text, click on link at bottom of screen to cover topics that include the connection between the oceans and atmosphere, what ocean circulation is and why it is important, and the seasons of the oceans. Several of the windows have color images.

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Gulf Stream Temperatures- NASA's Visible Earth
 Explains this ocean current, which plays an extremely important role in regulating global climate. Includes a high-resolution satellite image.

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## The Wind Stress on the Surface of the Ocean

- Wind Speed and Wave Height- NOAA NDBC Science Education Pages Explains the relationship between wind and waves.
- Surface Wind Fields Over the Oceans- NASA's Earth Observing System
   This site includes a color image showing the wind patterns over the Pacific and explains how wind patterns form and are documented by scientists.

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### The Coriolis Effect

• Getting Around the Coriolis Force - David J. Van Domelen, Ohio State University

Online article reviews the basic physics behind the Coriolis effect, how the Coriolis effect influences the operation of the atmosphere and oceans, and why the Coriolis effect is only relevant on certain (larger) scales.

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To learn more about careers in oceanography, visit the following web sites:

- Careers and Jobs in Marine Biology and Oceanography
- Oceanography And Your Career

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To learn more about harnessing wave power, visit the following web site:

• Wave Energy

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