POLAR TREC
Learning Resources

Details

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Ocean Literacy and Coastal Geology - Online Activity

Materials

- A computer with Internet connection is needed to complete this activity.

Main Link

https://softchalkcloud.com/lesson/serve/UxAEbgTZ18q49s/html

Overview

The main objective of this activity is to increase ocean literacy. Users will be exposed to the Ocean Essential Principles and Fundamental Concepts. This information is combined with other open educational resources, including streamed in YouTube videos.

Objectives

This online activity integrates the Ocean Essential Principles and Fundamental Concepts (http://oceanservice.noaa.gov/education/literacy/ocean_literacy.pdf) created by the ocean sciences and education communities. The learning outcomes are:

- Describe the essential Principles and Fundamental concepts about the ocean.
- Describe the significance of the ocean.
- Explain the different layers of the ocean.
- Describe the basic physics of ocean waves.
- Compare and contrast the differences between surface and deep ocean currents.
- Explain decisions regarding the ocean and its resources.
- Communicate about the ocean in a meaningful way.

Lesson Preparation

No content needs to be covered before giving this lesson.

Procedure

Users will only need time, minimum of two hours, to go through the entire lesson. It is designed as a homework activity. Simply provide the user with the link: https://softchalkcloud.com/lesson/serve/UxAEbgTZ18q49s/html

Extension

n/a.

Resources

Discover your changing world with NOAA: http://oceanservice.noaa.gov/education/discoverclimate/

Assessment

Users engage with the activity through questions and activities embedded within the lesson. Each question or activity is automatically scored. There are a total of 25 questions. Users can print out a certificate of completion with a score summary sheet at the end.

Author / Credits

PolarTREC Teacher Sian Proctor adapted and created this lesson based on her PolarTREC expedition and her curriculum needs as a community college educator and utilizing virtual platforms.

This lesson is adapted from the following sources:

- R. Adam Dastrup, (n.d.), Open Geography Education, http://www.opengeography.org/ch-8-oceans-and-coastal-environments.html
- NOAA, (November 13, 2013), The Ocean Essential Principles and Fundamental Concepts, http://oceanservice.noaa.gov/education/literacy.html
- CK-12 Content, (n.d.), erosion by waves, http://www.ck12.org/book/CK-12-Earth-Science-Concepts-For-Middle-School/section/9.15/
- All YouTube videos are streamed into the activity

Standards

This activity was designed for introductory college science students.

Learning Resources

Note on Permissions

- **Online:** Viewer may use this activity online with this link: https://softchalkcloud.com/lesson/serve/UxAEbgTZ18q49s/html. Users will be given the option to print out a certificate of completion at the end of the activity that can be turned in for a grade.
- **Add to a learning management system, download, share, and remix:** Viewers may download and remix this activity or integrate it into a learning management system with a Softchalk account. They can use it as needed, share it with others, and change components to suit their needs. Additional changed versions of the submission can be resubmitted to the Learning Resources by contacting info@polartrec.com