



Connecting the Global Ocean to Inland Audiences

Module 2: Oceans and the Earth's Energy Balance

This module is related to the central concept of the “Ocean/Sun connection”. The Earth has one big ocean that is interconnected. The temperature, salinity, and density of ocean water, and air temperatures and wind, are caused by the Sun and geologic processes. These factors cause ocean water to circulate on small and large scales and to interact with the atmosphere.

Learning Sequence:

1. Carry out the [Heating and Cooling Different Materials Lesson \(PDF\)](#).
2. Watch Chris Fairall's video lecture: [“Climate: It's All About the Sun!!! Or, Is It?”](#)
You may want to print out a copy of [Fairall Lecture Note Taking \(PDF\)](#) to take notes on the PowerPoint slides as you watch. Focus your note taking particularly on the concepts of Earth's energy balance and connections between energy balance and climate.
3. Think about your understanding of Earth's energy balance, or describe your ideas for how to integrate the concepts of the lecture into your learning environment.