



## Connecting the Global Ocean to Inland Audiences

### *Module 1: Inquiry-Oriented Science*

This module is designed to give educators examples of inquiry-oriented learning about climate and ocean science as they investigate key concepts of the field.

#### **Learning Sequence:**

1. Think about learning, both yours and your students, and then answer the following questions:
  - a. How do you personally best learn about science? Think about different learning styles: visual, aural, kinesthetic, etc.
  - b. What do you know about what research says how students best learn science?
  - c. What challenges are there to providing students with opportunities that optimize their learning of science?
2. Review the [Essential Features of Inquiry Chart \(PDF\)](#) and think about how you foster each of the Essential Features in your classroom.
3. Carry out the [Ocean Surface Area Lesson \(PDF\)](#).
4. Carry out the [Water Distribution on Earth Lesson \(PDF\)](#).
5. Do the following steps to become familiar with the [Reasons for the Seasons Lesson \(PDF\)](#).
  - a. Read the introduction and skim the procedures, but don't try to carry the lesson out at this time.
  - b. Answer the Analysis and Conclusion questions.
6. Watch "[A Private Universe](#)", a 20-minute video, which illustrates misconceptions students have about seasonal changes.
7. Consider the following questions:
  - a. What ideas do students struggle with the most, with respect to understanding seasonal change?
  - b. What aspects of the Reasons for the Seasons lesson are designed to help students develop more scientifically accurate ideas?
  - c. In what ways would you use or modify the Reasons for the Seasons lesson to help students understand these ideas?