DATA IN THE CLASSROOM: Investigating Sea Level Using Real Data

Example of Module Integration

There are many ways to integrate some or all of the lessons in this module into your course. One example, aimed at middle school teachers, is provided below.

Topic: Earth Science (Natural Hazard Prediction) **Grade level:** Middle School (6th/7th grade)

Example: This example of module integration uses a course model from the NGSS Middle School Phenomenon Model Course 2.

The bundle organizes performance expectations with a focus on helping students build an understanding of causes of diverse climates.

NGSS Model Course 2:

What causes climates to be so different across the Earth?

MS-PS4-3. Integrate qualitative scientific and technical information to support the claim that digitized signals are a more reliable way to encode and transmit information than analog signals. **MS-ESS2-5.** Collect data to provide evidence for how the motions and complex interactions of air masses result in changes in weather conditions.

MS-ESS2-6. Develop and use a model to describe how unequal heating and rotation of the Earth cause patterns of atmospheric and oceanic circulation that determine regional climates.

MS-ESS3-2. Analyze and interpret data on natural hazards to forecast catastrophic events and inform the development of technologies to mitigate their effects.

MS-ETS1-1. Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts.

Investigating Sea Level Module

Integrate part of the module into a sequence of lessons on natural hazards (hurricanes and flooding).

Example phenomenon:

* Flooding caused by hurricanes can be more severe during a full or new moon.

Module lessons that support NGSS standard (MS-ESS3-2):

- Level 3 Activity: How Do Tides Affect Sea Level?
- Level 4 Activity: How Do Storms Affect Sea Level?

Investigating Sea Level can be integrated into a course sequence here