## **DATA IN THE CLASSROOM: Investigating Coral Bleaching 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:** Life Science (Ecosystems & Human Impacts)

**Grade level:** Middle School (6th-8th grade)

Example: This example of module integration uses a course model from the NGSS Middle School Phenomenon Model Course 3 (Bundle 2).

Bundle 2 organizes performance expectations with a focus on helping students build understanding of ways that humans have affected their environments.

## NGSS Model Course 2 – Bundle 2 How can people influence other organisms?

**MS-LS1-8.** Gather and synthesize information that sensory receptors respond to stimuli by sending messages to the brain for immediate behavior or storage as memories.

**MS-LS2-4.** Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

**MS-LS4-5.** Gather and synthesize information about the technologies that have changed the way humans influence the inheritance of desired traits in organisms.

**MS-LS4-6.** Use mathematical representations to support explanations of how natural selection may lead to increases and decreases of specific traits in populations over time.

**MS-ESS3-5.** Ask questions to clarify evidence of the factors that have caused the rise in global temperatures over the past century.

Progression of Performance Expectations that follow MS-ESS5-5: MS-ETS1-3 & MS-ETS1-4

## **Investigating Coral Bleaching Module**

Integrate part of the module into a sequence of lessons on ecosystems & human impacts.

Example phenomenon:

**Investigating** 

into a course

sequence here

Coral Bleaching

can be integrated

\* Coral reefs around the world are turning white or 'bleaching' & oceans are heating up.

Module lessons that support NGSS standard (MS-LS2-4):

- Level 2: Measuring Coral Heat Stress
- Level 3: Monitoring Coral Reefs
- Level 4: Identifying a Bleaching Event