Module Name: Sagebrush

Institution: Idaho State University
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Summary:
We developed a lecture/activity based module using data collected during a GEM3-associated Vertically Integrated Project research course. To engage students in these different practices, this module uses argumentation as a method to get students to not only analyze or interpret data and develop claims to support their analysis and interpretations, but to do this with their peers. To incorporate both a biological focus and an argumentation focus, Day One of the module is designed to have students explore seed weight variation in Big Sagebrush (*Artemisia tridentata*) subspecies at various sampling locations when provided with environmental data such as precipitation, elevation and temperature. This provided students opportunities to work with their peers in developing claims to answer a guiding question and describe and justify that claim using the data. Day Two of the module is designed for students to share their Claim, Evidence, and Reasoning to the guiding question from Day One with their peers and then shift their thinking to a slightly different question and work individually to do the same thing they did during Day One, but individually through a written homework assignment. There is no material cost to implement this module and it can be implemented with varying course sizes and levels.

This module has been designed for use in introductory level Biology courses (100, 200, or potentially 300 level students in either a lecture or a lab)

Contents:
- Sagebrush Module Instructor Guide
- PowerPoint: Lesson 1 Slide Deck
- PowerPoint: Lesson 2 Slide Deck
- Student Handout 1: Generate an Argument
- Student Handout 2: Grading Rubric
- Student Handout 2: Individual Assignment
- Lesson 2 Possible Student Answers/Explanations
- Communicating and Peer Reviewing Claims

Notes:
- Please contact the project PI and the GEM3 PUI Liaison for assistance in deploying this module in your course.

Questions? Contact the PI or the GEM3 PUI Liaison, Stephanie Sevigny, stephaniesevigny@boisestate.edu
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