



STANDARDS AND PHENOMENA I: EVALUATING CLASSROOM ACTIVITIES

In this professional learning workshop, you will evaluate phenomenon-based activities aligned to the *Next Generation Science Standards* (NGSS) and similar *K-12 Framework*-derived three-dimensional (3D) performance expectations.

- We discuss how 3D standards change the concept of student proficiency.
- We review the structure, progressions, and student-centered intent of 3D standards.
- We introduce student proficiency goals as a tool for understanding connections among the three core dimensions of a standard.
- We review phenomenon characteristics and criteria.
- You will learn to map a phenomenon to a standard's proficiency goals and then use this method to select workable phenomena for your lessons.
- You will evaluate curricular resources, looking for standards-aligned, phenomenon-based, student-centered activities.
- You will explore modifying lessons to ensure agreement among the standards, the phenomenon, and the student tasks.
- You will choose a lesson, evaluate it, and map it to a common learning model (e.g., 5E).
- In the end, you will have a process for evaluating and adjusting lessons so that they will work for you. In addition, you will take home an adjusted lesson that lets your students address a real-world example using science practices and ways of thinking.

Standards and Phenomena I involves sixteen contact hours, plus time spent on assignments. We offer it over two **in-person** days or via **online** blocks that you can schedule as you like. We also offer a three-day version that allows you to dig deeper into both student proficiency and your final project. We customize the content based on enrollment.

S&P I is most effective if it follows *Introduction to Phenomena* or if participants are well versed in 3D standards and the use of phenomena in a student-centered classroom.

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Professional Learning Workshops from *Phenomenon Science Education*



Learning Objectives:

1. I can align a phenomenon to a Science and Engineering Practice, a Crosscutting Concept, and relevant Disciplinary Core Ideas.
2. I can implement proficiency goals for the specific dimensions of a given standard.
3. I can modify activities so that they align to a standard where students learn core ideas using the dimensions to appropriately address a workable phenomenon.
4. I can recognize the difference between a phenomenon and an engineering design problem.
5. I can identify if more than one phenomenon is necessary to fully address the science content included in a standard.
6. I can map classroom activities to a common learning model.

Goals:

1. You will be able to implement phenomenon-based, student-centered, and 3D-aligned learning in your classroom.
 - a. You will be able to identify and develop workable phenomena.
 - b. You will be able to appropriately interpret 3D standards.
 - c. You will be able to modify activities to make them work better in your classroom.
 - d. You will be able to implement student-centered learning experiences.

<https://www.phenomenon.science/standards-and-phenomena-courses>

Contact us to schedule a session: josh@phenomenon.science