

1. [Using Phenomena in NGSS Designed Lessons and Units](#)
 - ***This is the go-to resource we use in PD around phenomena. Some ways that I've used this are below:***
 - Read Chapter 1 of the framework; phenomena are not mentioned in this chapter at all. How do we see phenomena in the vision of the framework?
 - Focused on the following quotes from Framework Ch. 1: How do phenomena relate to this quote?
 - "...vision for education in the sciences and engineering in which students, over multiple years of school, actively engage in the scientific and engineering practices, and apply crosscutting concepts to deepen their understanding of the core ideas in these fields"
 - "The learning experiences should engage them with fundamental questions about the world and with how scientists have investigated and found answers to those questions."
 - Dig into Anchor Phenomena/ Investigative Phenomena/ Everyday Phenomena
2. [Qualities of Good Anchor Phenomenon for a Coherent Sequence of Science Lessons](#)
3. NextGen Storylines Resources
 - Video: [Using Phenomena in NGSS-Designed Instruction](#)
 - [Five Questions and Five Routines](#)
 - ***I really like the visuals of these resources to show the role of phenomena in student sensemaking by connecting student questions of the phenomena to what they're figuring out***
 - [Anchoring Phenomenon Routine Tool](#)
 - I might suggest looking at the first lessons in one of the high-quality examples of NGSS learning (Addie/ Corn) to see how anchoring phenomena and DQBs can be used. The skeleton would be great to show the difference between Anchoring phenomena and investigative phenomena
4. Driving Question Boards - organizing student questions around anchor phenomena
 - [Driving Question Board](#) Video from IQWST
 - [The Driving Question Board](#) Article pre-NGSS
5. NGSS@NSTA Resources
 - [Criteria for Evaluating Phenomena](#)
 - [Designing Phenomenon-Based Instruction](#)
 - NSTA Webinar: [How do I select Phenomena to Motivate Student Sense Making?](#)
 - This is long, but has some great examples of anchor phenomena in a classroom
 - Link to the video used at minute 45 - https://www.youtube.com/watch?v=jeiHmGTn_X8&list=PLD6LyeU2u4LNPDy9uhMBcPHw_5r2k8ZXh
6. [EQuIP Rubric](#) - Criterion I.A

- ***This is a complicated resource, but the tool by which NGSS designed lessons and units should be evaluated with. Some further clarification and resources around EQuIP and phenomena are below:***
- Video: [NGSS EQuIP Rubric: Using Phenomena](#)
- [NGSS EQuIP Lesson Screener](#) - Criterion A; “Less Like, More Like” boxes are really helpful
- [PEEC for NGSS](#)
 - Page 10 - Innovation 1: Making Sense of Phenomena & Designing Solutions to Problems - The Less/More table is a great tool
 - Page 54 - Tool 1A to collect data about the use of phenomena with a “less like/ more like” table