

# 3-DIMENSIONAL INSTRUCTIONAL RESOURCES- AZ SCIENCE STANDARDS

[Science Standards Page](#) | [Science Resource Page](#) | [STEM Resource Page](#) | [Science & STEM Webinars](#)

**Important note:** The ADE acknowledges that the acronym “NGSS” is consistently used throughout science resources. To avoid confusion, we want to ensure the community understands that Arizona is not considered an “NGSS” state. To further clarify, AzSS and the NGSS were both designed using the research document, A Framework for K-12 Science Education. Both sets of standards include a strong focus on three-dimensional instruction, which includes: Science and Engineering Practices, Crosscutting Concepts, and Core Ideas. The major difference between the AzSS and the NGSS is that Arizona used an additional research document, Working with Big Ideas of Science Education, in the development of the Core Ideas of Knowing and Using Science.

## PHENOMENA

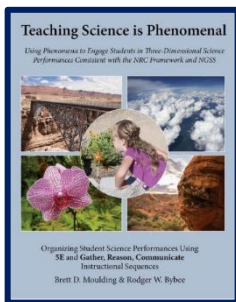
### Resources Used in Webinar- Phenomena-Based 3-D Instruction

[Phenomenon-Based 3-Dimensional Instruction](#) | [PDF](#) | [Resource Page](#)

Video #1	<a href="#">NGSS: A vision for K-12 Science Education</a>
Video #2	<a href="#">Scientific Phenomenon and Sensemaking</a>
Reference Doc #1	<a href="#">New Vision for Science Education</a>
Reference Doc #2	<a href="#">Introduction-Page 2 of Standards Document</a>
Reference Doc #3	<a href="#">Shifts in Thinking About Phenomena</a>
Reference Doc #4	<a href="#">Designing Phenomena-Based Instruction</a>
Lessons that Use Phenomena	<a href="#">#Going3Dw/GRC</a>

### Resources to Find Possible Phenomena from Webinar

Phenomena for NGSS	<a href="https://www.ngssphenomena.com/">https://www.ngssphenomena.com/</a>
Project Phenomena	<a href="https://sites.google.com/site/sciencephenomena/">https://sites.google.com/site/sciencephenomena/</a>
The Wonder of Science	<a href="https://thewonderofscience.com/phenomenal">https://thewonderofscience.com/phenomenal</a>
Project SING Phenomena	<a href="http://questlc.org/phenomena/#phenomena">http://questlc.org/phenomena/#phenomena</a>



**Recommended Book & Website:**  
[Teaching Science is Phenomenal](#)

### Additional Phenomena Resources

[STEM Teaching Tool 28 - Qualities of Anchor Phenomena for a Coherent Sequence of Science Lessons](#)

[STEM Teaching Tool 42 - Using Phenomena in NGSS Designed Lessons & Units](#)

[The Wonder of Science- Phenomena Resources & Master List of Phenomena](#)

[OpenSciEd Anchoring Phenomena Instructional Model](#)