VERMONT
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Professional Resources

Implementation Resources

- NGSS District Implementation Workbook
- NGSS District Implementation Indicators
- Lessons Learned from the Early Implementer Districts: Professional Learning
- Guide to Implementing the NGSS
- NGSS: An Overview for Principals
- Hallmarks of a Fully Realized School System
- What Strategies are needed for Successful Implementation of the NGSS?
- Instructional Leadership for Science Practices: A tool to help Principals understand the NGSS
- Supporting the Implementation of NGSS Through Research: Professional Development

Videos

- 2013 Summit Presentation: School District Implementation of the NGSS

Professional Development Resources

- American Museum of Natural History:
  - Five Tools and Processes for Translating the NGSS Into Instruction and Classroom Assessment
- Smithsonian *Science Education Center*:
  - Elementary Science Education: The Next Generation
- NSTA NGSS Web Seminar Series
- Introducing Teachers and Administrators to the NGSS
- What's Your Evidence? Engaging K-5 Children in Constructing Explanation in Science
- Perspective: Improving STEM Education with NGSS
- Mathematics and Science Partnership Grant Program
- Proficiency-Based Graduation Requirements
- OER Commons Science 20/20

Videos

- NGSS: The Vision for Science Education and the New Role of Teachers
- NGSS: What NGSS Looks Like in the Classroom
- Bozeman Science: NGSS

Curriculum Development

Storylines and Example Course Mapping/Modeling

- Grades K-2
  - Kindergarten
  - Grade 1
  - Grade 2
- Grades 3-5
  - Grade 3
  - Grade 4
  - Grade 5
- Middle School
  - Standards-Organized Model
  - Theme-Based Model
- High School
  - NGSS Model Course Maps

Curriculum Development

- NSTA: Planning an NGSS Curriculum
- NSTA: Designing Units and Lessons
- NSTA: Selecting Learning Materials
- Bundling the NGSS
- Five Tools and Processes for Translating the NGSS Into Instruction and Classroom Assessment
- Next Generation Science Storylines
- Ambitious Science Teaching
- Curriculum Materials Make a Difference for Next Generation Science (NGS) Learning
- Supporting the Implementation of NGSS through Research:
  - Informal Science Education
  - Engineering
  - Curriculum Materials

Phenomena

- Anchoring Phenomena: The NGSS explains the importance of Phenomena-based science education
- Using Phenomena in an NGSS Designed Instruction: A three minute interview with Brian Reiser and how Phenomena connects with the Next Generation's 3D learning
- Qualities of a Good Anchor Phenomenon: A list of indicators to compare phenomena to
- Phenomena for NGSS: A collection of phenomena that can be instructionally productive
- #ProjectPhenomena: A database of phenomena broken down by NGSS DCI
- Storyline Template: A base for educators to use to build a lesson around an anchoring phenomenon
- Using NGSS Phenomena to Engage Students

Alignment Tools

- EQuIP Rubric for Lessons and Units: Science
- NGSS Lesson Screener
- Primary Evaluation of Essential Criteria (PEEC) for NGSS Instructional Materials Design
- NSTA NGSS Tools

Project-Based Learning (PBL) and NGSS

- Project based learning and the NGSS
- The Project Approach: Project-based learning for K-12
- Project Based Learning meets the NGSS
- PBL Science Empowered by Discussion Forums