

Useful Links for Item Writing

Standards

NGSS

<https://www.nextgenscience.org/>

Appendix E: Disciplinary Core Idea Progressions

<https://www.nextgenscience.org/sites/default/files/resource/files/AppendixE-Progressionswithin-NGSS-061617.pdf>

Appendix F: Science and Engineering Practices

[https://www.nextgenscience.org/sites/default/files/resource/files/Appendix%20F%20%20Sci-ence%20and%20Engineering%20Practices%20in%20the%20NGSS%20-%20FINAL%20060513.pdf](https://www.nextgenscience.org/sites/default/files/resource/files/Appendix%20F%20%20Science%20and%20Engineering%20Practices%20in%20the%20NGSS%20-%20FINAL%20060513.pdf)

Appendix G: Crosscutting Concepts

<https://www.nextgenscience.org/sites/default/files/resource/files/Appendix%20G%20-%20Cross-cutting%20Concepts%20FINAL%20edited%204.10.13.pdf>

Scientific Phenomena Resources

Choosing Phenomena and Writing 3D Lesson Plans

<https://sites.google.com/3d-grcscience.org/going3d/home>

Phenomena for NGSS (TJ McKenna)

<https://www.ngssphenomena.com/>

Using Phenomena in NGSS-Designed Instruction

Using Phenomena in NGSS-Designed Lessons and Units

<https://www.nextgenscience.org/sites/default/files/Using%20Phenomena%20in%20NGSS.pdf>

Interview with Brian Reiser

<https://www.nextgenscience.org/resources/phenomena>

STEM Teaching Tools: Using Phenomena in NGSS-Designed Lessons and Units

<https://stemteachingtools.org/brief/42>

NGSS EQUIP Rubric Using Phenomena

<https://www.nextgenscience.org/resources/ngss-equip-rubric-using-phenomena>

STEM Teaching Tools: ACESSE Resource E: Selecting Anchoring Phenomena for Equitable 3D Teaching

<https://stemteachingtools.org/pd/sessione>

STEM Teaching Tools: Phenomena

<https://stemteachingtools.org/brief/28>

Integrating Science Practices into Assessment Tasks (Research + Practice Collaboratory)

<http://researchandpractice.org/ngsformats/>

Professional Development Tool: Qualities of a Good Anchor Phenomenon for a Coherent Sequence of Science Lessons

http://researchandpractice.org/resource/anchor_phenomena/

Explaining Phenomena and Solving Problems as a Central Shift in the Next Generation Science Standards Vision for Science Teaching and Learning

http://scimath.unl.edu/noyce/conferences/2014/files/slides/Campbell_NGSS.pdf

Developing Assessments for the NGSS

<https://concord.org/publications/newsletter/2014-fall/developing-assessments-for-the-ngss>

#ProjectPhenomena

<https://ngss.sdcoe.net/Phenomena-and-the-NGSS/-ProjectPhenomena-Database>

Text Analyzer

ATOS (free text analyzer for grade level appropriateness)

http://www1.renaissance.com/Products/Accelerated-Reader/ATOS/ATOS-Analyzer-for-Text?_ga=2.233552470.939743863.1498597074-223222582.1498597074

Data Search Sites

Google Scholar (science journals—probably the best source for ecological and biological data)

<https://scholar.google.com/>

Climate Data (region specific — temp, rainfall)

www.wunderground.com

Earth/Space/Planetary Systems Data (including atmosphere, ice caps, carbon cycle)

The European Space Agency www.esa.int

National Aeronautics and Space Administration (NASA) www.nasa.gov

National Oceanic and Atmospheric Administration www.noaa.gov

Global Climate Change

www.ipcc.ch

Geology

www.usgs.gov

Oceans

www.whoi.edu

Engineering Data (e.g., material properties)

www.engineeringtoolbox.com

Mineral Properties

www.mindat.org

Physics: Hyperphysics (waves, thermal energy, gravity, etc.)

<http://hyperphysics.phy-astr.gsu.edu>

WCAS Resources

WCAS Online Training Tests Portal

<https://wa.portal.cambiumast.com/>

WCAS Educator Resources

<https://www.k12.wa.us/student-success/testing/state-testing-overview/washington-comprehensive-assessment-science/wcas-educator-resources>

WCAS Science Assessment Professional Development Opportunities

<https://www.k12.wa.us/student-success/resources-subject-area/science/science-assessment-professional-development-opportunities>