NEXT GENERATION SCIENCE STANDARDS For States, By States

Resources for NGSS

Framework:

A Framework for K-12 Science Education – free download

REVISED – The NSTA Reader's Guide to A Framework for K-12 Science Education

NSTA archived webinars for *A Framework for K-12 Science Education* and Next Generation Science Standards

Bozeman Science - videos

Next Generation Science Standards:

Standards online – if possible work from this site as the PDF's are not as up-to-date as the website:

NGSS resources

National Science Teachers Association

Bozeman Science

Guide to Implementing the Next Generation Science Standards-final version

Community Resources for Science this group is out of Berkley, CA they have some great resources

Crosscutting symbols signs for printing

Teaching Channel:

NGSS: What's a teacher to do?

Building Towards NGSS Classrooms

Video NGSS: Crosscutting Concepts

Video NGSS: Disciplinary Core Ideas

Video NGSS: Science and Engineering Practices

Video NGSS: A Vision for K-12 Education

Assessment Examples

<u>Developing Assessments for the Next Generation Science Standards:</u>

AAAS Science Assessment

Below are not entirely aligned to NGSS but useful to get ideas of what test for NGSS will look like and helpful if you are revising site assessments:

National Assessment of Educational Progress (NAEP)

Performance Assessments Links in Science

<u>Connecticut State Department of Education – scroll down to Curriculum-Embed Performance Tasks and</u> Assessment

Rhode Island Department of Education

Lesson Ideas for NGSS:

The Concord Consortium

RESA

NGSS Life Science

Middle School: http://www.discoveryeducation.com/teachers/free-6-8-teacher-

resources/index.cfm?campaign=footer_teacher_68

High School: http://www.discoveryeducation.com/teachers/free-9-12-teacher-

resources/index.cfm?campaign=footer teacher 912

Teacher Channel Blog: https://www.teachingchannel.org/blog/ausl/author/aberg/ Smithsonian Education: http://smithsonianeducation.org/educators/index.html NASA Climate Kids 3-8th grades: https://climatekids.nasa.gov/science-standards/

NASA: http://spaceplace.nasa.gov/science-standards/en/

The Concord Consortium: http://concord.org/ngss/?gclid=CM-4hP-ui74CFQpgfgod7jYAbw

NGSS Life Science: http://www.ngsslifescience.com/index.html

CESA2 - many resources: http://www.cesa2.org/programs/stem/scienceinstruction.cfm (many other

pages to look at also)

PBS – Engaging Science: http://www.pbs.org/wgbh/nova/blogs/education/

Serendip Studio – Alignment of biology activities of

NGSS: http://serendip.brynmawr.edu/exchange/bioactivities/NGSS

RESA Lesson Plans Exploring

NGSS: http://www.resa.net/curriculum/curriculum/science/professionaldevelopment/ngss-pd/lesson-

plans-exploring-ngss/

NGSS Resources: http://www.livebinders.com/play/play/451043#anchor

Engineering:

Engineering Go For It
CEISE, Stevens Institute of Technology
Teach Engineering
What is Engineering?

STEM:

Engineering: Go For It: http://www.egfi-k12.org/

Siemens STEM Academy: http://stem.discoveryeducation.com

Navy STEM for the Classroom: http://www.navystemfortheclassroom.com/lesson-plans

Test Tube: http://testtube.com

Popular Science: http://www.popsci.com

STEMWORKS Database: http://changetheequation.org/improving-philanthropy/stemworks

The NSTA Learning Center – this site has some great PD opportunities for teachers to learn

content, Framework and Next Generation Science

Standards: http://learningcenter.nsta.org/default.aspx

PBL and Close Reading and Sources:

National Center for Case Study Teaching in Science: http://sciencecases.lib.buffalo.edu/cs/
Boston Public Schools: http://bpscurriculumandinstruction.weebly.com/science-close-reading-lessons.html

Online Textbooks:

KQED – PBS station for Northern California has a new series of iBook's, currently they have middle school Earthquake and River Delta and high school Biotechnology and Energy is coming. You can download the iBook from Apple iBook's author and they have an accompanying iTunes U course. For more information go to: http://www.kqed.org/community/mobile/ibook/

Net Text offers some online text also: http://www.net-texts.com/ http://www.net-texts.com/ http://www.net-texts.com/

KITS

Green Boxes from DRI: http://www.dri.edu/greenpower-what-we-do/green-boxes GEMS: Great kits for K-8: https://sites.google.com/site/nevadagemssite/

Other Resources:

Science News

Science News for Students

Donors Choose – http://www.donorschoose.org/

HHMI (Howard Hughes Medical Institute) – http://www.hhmi.org/

California Learning Resources Network – www.clrn.org

Understanding Science – http://undsci.berkeley.edu/

MERLOT (Multimedia Educational Resource for Learning and Online Teaching:

http://www.merlot.org/merlot/index.htm