

## SECONDARY SCIENCE RESOURCES

The list below contains web resources for additional activities, rubrics, literature books, and magazines to provide rigor for students who have mastered the ALCOSS concepts and skills. For any Internet link, teachers must preview the Web site before allowing students access. Some resources are appropriate for high school students but not for elementary. Some links provide links to other Web sites. Not all links are appropriate for all students. It is strongly recommended for teachers to bookmark the links student may access instead of allowing students to go to Web Sites that may contain content inappropriate for their age and ability levels.

### Teacher Blogs with Resources:

<http://clounaghscience.wordpress.com/>

<http://nstacommunities.org/blog/>

<http://www.stevespangler.com/>

### WebQuests:

**Real-world applications of content and skills embedded in multidisciplinary, problem-based learning activities.**

<http://webquest.org/>

<http://bestwebquests.com/bwq/listcrosstab.asp?wqcatid=8&edid=1>

<http://bestwebquests.com/bwq/listcrosstab.asp?wqcatid=8&edid=3>

### Citizen Scientists:

**Real-world opportunities for students to collect and/or analyze data for scientific organizations.**

Bee Scientists- <http://www.greatsunflower.org/>

Butterflies of Alabama- <http://www.thebutterflysite.com/alabama-butterflies.shtml>

Cornell Lab of Ornithology (Nine different projects )-

<http://www.birds.cornell.edu/netcommunity/page.aspx?pid=1664>

FireFly Watch- [https://www.mos.org/fireflywatch/about\\_firefly\\_watch](https://www.mos.org/fireflywatch/about_firefly_watch)

FrogWatch USA- <http://www.aza.org/frogwatch/>

Galaxy Zoo- Classifying galaxies for NASA!-

[http://www.galaxyzoo.org/how\\_to\\_take\\_part](http://www.galaxyzoo.org/how_to_take_part)

Journey North- <http://www.learner.org/jnorth/>

Life Desk (need permission for organization) - <http://www.lifedesks.org/>

Mars Student Imaging Project- <http://msip.asu.edu/>

Monarch Watch - <http://www.monarchwatch.org/>

Project BudBurst- <http://www.budburst.ucar.edu/index.php>

SETI- <http://setiathome.berkeley.edu/index.php>

Spring Wildlife Watch - <http://www.nwf.org/WildlifeWatch/Home.aspx>

StarChild (star count)-

[http://www.windows2universe.org/citizen\\_science/starcount/](http://www.windows2universe.org/citizen_science/starcount/)

Star Dust @Home- <http://stardustathome.ssl.berkeley.edu/classroom.php>

### General Science Resources

San Francisco Science Museum Resources

<http://www.exploratorium.edu/>

<http://www.exploratorium.edu/who/geeks/>

<http://www.exploratorium.edu/who/teens/>

Nova-(PBS)- <http://www.pbs.org/wgbh/nova/>

<http://www.kidsites.com/sites-edu/science.htm>

US Government-

[http://free.ed.gov/subjects.cfm?subject\\_id=56&toplvl=41&res\\_feature\\_request=0](http://free.ed.gov/subjects.cfm?subject_id=56&toplvl=41&res_feature_request=0)

<http://chem.lapeer.org/>

Videos-<http://www.vega.org.uk/video/>

<http://www.thefutureschannel.com>

AMSTI- <http://www.amsti.org/Science/HandoutsandHelps/tabid/94/Default.aspx>

Smithsonian Education <http://www.smithsonianeducation.org/students/index.html>

IdeaLabs

<http://www.smithsonianeducation.org/students/idealabs/idealabs.html>

### **Science Magazines, News:**

<http://www.sciencemag.org/>

<http://www.sciencedaily.com/>

<http://www.popsoci.com/>

<http://www.scientificamerican.com/>

<http://www.nature.com/>

<http://www.sciencenews.org/>

<http://discovermagazine.com/>

<http://newyorkscienceteacher.com/sci/pages/astr/index.php>

<http://amasci.com/amasci.html>

<http://www.eskimo.com/~billb/edu.html#scisite>

[http://www.nsrconline.org/student\\_and\\_parent\\_resources/student\\_resources.html](http://www.nsrconline.org/student_and_parent_resources/student_resources.html)

<http://www.naturalhistorymag.com/>

### **Ask An Expert**

<http://www.k12science.org/askanexpert.html>

[http://www.sciencebuddies.org/science-fair-projects/ask\\_an\\_expert\\_intro.shtml?From=Tab](http://www.sciencebuddies.org/science-fair-projects/ask_an_expert_intro.shtml?From=Tab)

### **Astronomy**

<http://starchild.gsfc.nasa.gov/docs/StarChild/StarChild.html>

[http://heasarc.gsfc.nasa.gov/docs/outreach/for\\_students.html](http://heasarc.gsfc.nasa.gov/docs/outreach/for_students.html)

<http://heasarc.gsfc.nasa.gov/docs/heasarc/resources.html>

Teachers- <http://heasarc.gsfc.nasa.gov/docs/outreach.html>

### **Cells**

<http://www.cellsalive.com/>

### **Environmental, Life Sciences**

EPA- <http://www.epa.gov/epahome/students.htm>

NOAA <http://www.noaa.gov/>

<http://www.education.noaa.gov/>

Weather <http://www.stormpulse.com/>

Jason Project <http://www.jason.org/public/whatis/start.aspx>

GLOBE- <http://globe.gov/> (AMSTI has this information, too)

EELink- <http://eelink.net/pages/Teachers>

National Parks- <http://www.nps.gov/learn/>

### **Human anatomy-Visible Human Project**

[http://www.nlm.nih.gov/research/visible/visible\\_human.html](http://www.nlm.nih.gov/research/visible/visible_human.html)

<http://anatquest.nlm.nih.gov/>

<http://vhnet.nlm.nih.gov/AnatQuest/AwtCsViewer/aq-cutaway.html>

## Microscopic photos and information

<http://www.denniskunkel.com/index.php>

## Oceans, weather, climate change, and marine life

<http://www.noaa.gov/>

<http://www.education.noaa.gov/>

<http://www.google.com/sky/>

<http://www.stormpulse.com/>

Images and Animations from NASA <http://visibleearth.nasa.gov/>

## Power of 10

<http://micro.magnet.fsu.edu/primer/java/scienceopticsu/powersof10/index.html>

## Periodic Table

<http://pubs.acs.org/cen/80th/elements.html>

<http://www.webelements.com/>

<http://www.ptable.com/>

Photographic Periodic Table <http://periodictable.com/>

Visual Periodic Table [http://www.rsc.org/chemsoc/visualelements/pages/pertable\\_fl\\_a.htm](http://www.rsc.org/chemsoc/visualelements/pages/pertable_fl_a.htm)

## Space

Images and Animations from NASA <http://visibleearth.nasa.gov/>

NASA [http://heasarc.gsfc.nasa.gov/docs/outreach/for\\_students.html](http://heasarc.gsfc.nasa.gov/docs/outreach/for_students.html)

NASA <http://heasarc.gsfc.nasa.gov/docs/heasarc/resources.html>

Teachers- <http://heasarc.gsfc.nasa.gov/docs/outreach.html>

Google Sky <http://www.google.com/sky/>

## VIDEOS

Free videos <http://www.vega.org.uk/video/>

Brightstorm: <http://www.brightstorm.com/science>

Videos cover Biology, Chemistry and Physics- Suggested videos of related topics appears next to the video box. AP materials are not free.

How Stuff Works: Physical Science Videos

<http://videos.howstuffworks.com/science/physical-science-videos.htm>

Khan Academy: <http://www.khanacademy.org/>

Videos cover Biology, Chemistry, Physics, Organic Chemistry and Cosmology and Astronomy.