

an Education Center link which provides information for K-12 students and teachers. <http://www.nano.gov>

National Nanotechnology Infrastructure Network:

A searchable database of over 75 lessons written by teachers for teachers. Includes reference sheets of information essential for students in basic science classes as well as other resources. <http://nnin.org/education-training>

NiseNet: Nanoscale Informal Science Network—Interesting articles, images and a catalog of activities. <http://www.nisenet.org/>

Northwestern University: Materials World Modules and National Center for Learning and Teaching in Nanoscale Science & Engineering—instructional materials & video broadcasts <http://www.nclt.us>
<http://www.materialsworldmodules.org/>

Nova Making Stuff and Making More Stuff Series: Hour-long video series on how nanotechnology is making stuff stronger, smaller, cleaner, and smarter. <http://www.pbs.org/wgbh/nova/tech/making-stuff.html>; <http://www.pbs.org/wgbh/nova/tech/making-more-stuff.html>

Ohio State University Center for Affordable Nanoengineering of Polymeric Biomedical Devices: Lessons provided for high school science teachers. <http://nsec.osu.edu/educationoutreach>

Oklahoma Nanotechnology Education Initiative: K-12 resources including family and consumer science lessons. <http://www.okcareertech.org/about/initiatives/oklahoma-nanotechnology-education-initiative>

PBS Learning Media: Has 60 nanotechnology-related items in its resources. <http://www.pbslearningmedia.org/search/?q=nanotechnology>.

Pennsylvania State University: MRSEC - Center for Nanoscale Science Nano-Activities for Kids <http://www.mrsec.psu.edu/education/nano-activities/>

Rice University:

Nanokids is a series of 12 self-contained nanoscale science and technology lessons for grades 6-12. <http://nanokids.rice.edu/mission.cfm>

CBEN: teacher course and lesson plans and videos. <http://cben.rice.edu/education/resources.aspx>

Scale of the Universe: Interactive size and scale. <http://htwins.net/scale2/>

ScienceCentral, Inc: Information and videos on current nano research. <http://www.sciencentral.com>

Science Museum UK Online: Information about nanotechnology and how scientists are using it to improve our daily lives. Includes an interactive game. <http://www.sciencemuseum.org.uk/antenna/nano/>

South African Agency for Science and Technology Advancement: Public engagement programs in nanotechnology and biotechnology which includes cartoon posters, lessons, and articles. <http://www.npep.co.za/>

Try Nano: Resources, lessons, general information. <http://www.trynano.org/>

University of Illinois at Urbana-Champaign: CEMMS: Online labs that include nano-silver, gold and investigating chocolate. <http://nano-cemms.illinois.edu/education>

University of Wisconsin-Madison:

MRSEC: A variety of kits and resources focused on nanoscale science and engineering, including societal and environmental issues. <http://www.mrsec.wisc.edu/edetc/modules/index.html>

NSEC: Lessons for the K-12 science classrooms & after school groups. <http://ice.chem.wisc.edu/>

Vega Science Trust: Videos on basics of nanotechnology & how it will change the world. A project lead by Nobel Prize Winner Sir Harry Kroto. <http://www.vega.org.uk/video/programme/3>

Wonderville.CA Variety of resources including games, videos, careers from Alberta Canada. <http://www.wonderville.ca/browse/search?q=nanotechnology>

Nanotechnology Education Resources

10⁻⁹ meters



Nanoscale -- Too small to see !



Georgia Tech Institute for Electronics and Nanotechnology



Brought to you by SENIC: <http://senic.gatech.edu/>

Nanotechnology Lessons and Classroom Resources

This is a compilation of some of the resources available online for teachers. We have created this list so that teachers will be able to find lessons and support materials that will help them include nanoscale science and engineering in their classrooms. A variety of nanotechnology classroom resources are provided by the following institutions and facilities. These are provided for information purposes only and do not reflect endorsement by SENIC.



Children's On-line Science Magazine
<http://www.nanooze.org>
FREE print copies on request

Concord Consortium: Interactive simulations and lessons for biotechnology and nanotechnology.
<http://molit.concord.org>

Cornell University:

CCMR: Teacher resources & lending library of experiments <http://www.ccmr.cornell.edu/education>

DiscoverNANO: Nano101, history and lessons.
<http://www.discovernano.northwestern.edu/>

Dragonfly TV-Nanosphere: Shows on nanotechnology. With games, activities and interviews with scientists. <http://pbskids.org/dragonflytv/nano/index.html>

Duke University Center for Environmental Implications of Nanotechnology— Virtual synthesis of nanoparticles.
<http://www.ceint.duke.edu/content/programs>

Engineering –Go for It!: Lessons, activities, resources on engineering including nanotechnology.
<http://teachers.egfi-k12.org/>

European Union: Nanotechnologies: A compendium for educators
http://ec.europa.eu/research/industrial_technologies/pdf/nano-hands-on-activities_en.pdf

Florida State University Molecular Expressions Exploring the world of Optics and Microscopy— Includes interactive Java-powered virtual

microscopes, images, and information on microscopes.
<http://micro.magnet.fsu.edu/index.html>

GeckoMan: an interactive game developed by Northeastern University's Center for High-rate Nanomanufacturing.
<http://nano.server281.com/education/k-12-teachers/>

Hitachi, HTA: Inspire STEM education and cartoon book on SEM. <http://www.inspirestemeducation.us/> &
<http://www.inspirestemeducation.us/tools/science-is-fun/>

Lawrence Hall of Science: Interactive games, videos, scale, and meet a scientist—in the *Nanozone!*
<http://nanozone.org>

KQED: Nanotechnology Educator Guide; A resource for using QUEST video, audio, blogs and maps in the classroom.
http://science.kqed.org/quest/files/imp/download/73/212b_NanotechThemeGuide.pdf

Molecularium: Teacher Guide & "Kid's site" about the atomic world. <http://www.molecularium.com/>

Nano4Me: Provided by Penn State's NACK Network - it offers K-16 resources (including online course materials for community colleges), remote access to equipment, and career information for students. <http://nano4me.org/>

NanoDictionary— dictionary of nanoterms including some visuals. <http://nanodic.com/>

NanoHub— Purdue University online materials for middle school, high school, and college levels.

<http://nanohub.org/groups/ms>; <http://nanohub.org/groups/hs>; <http://nanohub.org/>

Nano-Link: provides high school and community college nanoscience curriculum modules. <http://nano-link.org>

NanoLeap: Two units, one physical science and one chemistry that promote interdisciplinary nanoscale core concepts. <http://www.mcrel.org/nanoleap/>

NanoMission: Learning Nanotechnology through Games— *games to learn basic concepts in nanoscience through real world applications from microelectronics to drug delivery.* <http://nanomission.org/>

Nanoreisen: Advnetures beyond the decimal – Interactive exploration of micro and nano worlds.
<http://www.nanoreisen.de/english/index.html>

NanoSense: Lesson plans and activities designed for teaching nanoscience at the high school level.
<http://nanosense.sri.com/>

Nano-World: Virtual exploration of a nano lab in Switzerland including 3-D visualizations. <http://www.nano-world.org/nano/en>

National Cancer Institute: Provides resource information on nanotechnology in cancer treatment.
<http://nano.cancer.gov/learn/understanding/>

National Nanotechnology Initiative: This site has