

Science Web Resources from EDCompass™ online community website

For additional resources, please visit the website regularly.

www.edcompass.smarttech.com/en/learning/WebResources

Primary Resources (from U.S. and Canada)

Age	Country	Resource
5–11	U.S.	Think Fountain A–Z – Science Museum of Minnesota www.sci.mus.mn.us/sln/tf/nav/tfatoz.html Comprehensive database of science experiments that provides detailed information about exactly what tools and skills are needed to complete each project.
5–11	U.S.	TryScience www.tryscience.org/splashpage.html A wide variety of experiments, most of which use extensive animation for explanation.
5–11	U.S.	Magnet Man – Cool Experiments with Magnets http://my.execpc.com/~rroadley/magindex.htm Focuses on magnetism and includes a wide variety of experiments.
5–11	U.S.	Pieces of Science http://sln.org/pieces An online gallery of 16 educational resources related to a collection of historical science objects. Interactive activities and curriculum resources included.
9–12	U.S.	Secrets@Sea www.secretsatsea.org Curriculum-based learning game that explores the ocean and all its inhabitants.
7–11	U.S.	Exploring the Secret Life of Trees www.urbanext.uiuc.edu/trees2/index.html An animated presentation of trees and what they need to grow.
8–12	U.S.	www.pbs.org www.pbs.org/wnet/nature/fun.html Check out these multimedia interactive adventures and have fun learning about the natural world. Feature games include Animal Scramble, Crocodilian Biology and Enter the Hive.
9–12	U.S.	The Miami Museum of Science – The Science Learning Network(SLN) www.miamisci.org/www/sln.html An online community of educators, students, schools, science museums and other institutions demonstrating a new model for inquiry science education. Online educational activities include Ecolinks, pH Factor, Atoms Family and Storm Science.
5–11	U.S.	Hands on the Land www.handsontheland.org A national network of field classrooms to enhance student learning at all grade levels.
5–11	U.S.	BLM Learning Landscapes www.blm.gov/education Classroom and virtual learning opportunities related to the 261 million acres of public lands overseen by the Bureau of Land Management.
10–11	U.S.	Kids Macrogalleria – Flash Activities www.pslc.ws/macrog/kidsmac/flashact.htm Flash polymer activities.
6–11	U.S.	U.S. Geological Surveys – Kid's Corner http://biology.usgs.gov/features/kidscorner/kidscrnr.html All about biology! Games, coloring pages, projects, stories and quizzes.

5–12	U.S.	Cyberchase http://pbskids.org/cyberchase/index.html Lesson plans and activities to help teachers and parents explore the math ideas presented in each episode of the popular animated television show.
8–10	U.S.	The Great Plant Escape www.urbanext.uiuc.edu/gpe/gpe.html An introduction to plant science that will increase students' understanding of how foods grow.
9–11	U.S.	What Goes Up www.lessonplanspage.com/ScienceSSMars7WhatGoesUpDown56.htm Students learn about gravity and experiment using different weighted objects.
7–11	U.S.	Federal Emergency Management Agency – Hurricanes www.fema.gov/kids/hurr.htm Help students understand what hurricanes are all about with this friendly and engaging website for young students.
8–9	U.S.	Animal Life Cycles http://warrensburg.k12.mo.us/webquest/cycles/index.htm A WebQuest that investigates the life cycles of various animals.
5–12	U.S.	Neuroscience for Kids http://faculty.washington.edu/chudler/neurok.html Kid-friendly site full of activities, experiments, articles, research and other resources. Very detailed and fun!
6–11	U.S.	Enchanted Learning - Zoom Dinosaurs www.enchantedlearning.com/subjects/dinosaurs/ A comprehensive hypertext book about dinosaurs, which was designed for students of all ages and levels of comprehension. Its easy-to-use structure allows readers to start at a basic level on each topic and progress as desired.
6–11	U.S.	Tramline Virtual Field Trips www.field-trips.org/vft/index.htm This site has a variety of field trips to choose from, with great pictures, detailed information and questions for students to consider as they move from one Web page to another. Explore and learn about rainforests, endangered species, salt marshes, volcanoes and more. Teacher's objectives and resources for each trip are provided.
8–10	U.S.	Decomposers or Destroyers? http://warrensburg.k12.mo.us/webquest/decomposers/index.htm This WebQuest was designed to help students gain knowledge of the role each animal plays in the "Circle of Life."
6–11	U.S.	Yucky Lab Activities http://yucky.kids.discovery.com/flash/fun_n_games/category_icky.html Scientific experiments that appeal to a young student's sense of fun
5–11	U.S.	PBS – A Science Odyssey www.pbs.org/wgbh/aso Interactive activities, science and social studies resources, educational videos and much more.

Secondary Resources (from U.S. and Canada)

Age	Country	Resource
11–17	U.S.	Think Fountain A–Z – Science Museum of Minnesota www.sci.mus.mn.us/sln/tf/nav/tfatoz.html Comprehensive database of science experiments that provides detailed information about exactly what tools and skills are needed to complete each project.
11–17	U.S.	Magnet Man – Cool Experiments with Magnets http://my.execpc.com/~rheadley/magindex.htm

		Focuses on magnetism and includes a wide variety of experiments.
11–18	U.S.	Archaeology.info www.archaeologyinfo.com/index.html Take a journey back through time and learn about our hominid ancestors.
14–18	U.S.	Who wants to win a \$1,000,000? – The Science Game http://education.jlab.org/million/index.html Students test their knowledge of math and science as they work their way to the million-dollar level!
11–18	U.S.	Pieces of Science http://sln.org/pieces An online gallery of 16 educational resources related to a collection of historical science objects. Interactive activities and curriculum resources included.
14–17	U.S.	Explorescience.com www.explorescience.com/activities/index.cfm Multimedia activities covering the major topics in science today. As a member of the ExploreScience.com community, you can create personalized, dynamic, individualized course web pages as well as personal Web pages. Teachers can post assignments, announcements and other information for students and for parents.
11–15	U.S.	Kids Macrogalleria – Flash Activities www.pslc.ws/macrog/kidsmac/flashact.htm Flash polymer activities.
15–18	U.S.	WebElements.com www.webelements.com/ The first ever-periodic table on the Internet, WebElements aims to be a high quality source of chemistry information. Both professional scientists and science students will find something useful.
13–18	U.S.	The Dynamic Earth www.mnh.si.edu/earth/ This highly interactive Web site from the Smithsonian Institution provides an overview of earth science including major sections on gems and minerals, rocks and mining, plate tectonics and minerals, and the solar system.
12–14	U.S.	Insecta Inspecta World www.insecta-inspecta.com/about/index.html This detailed interactive site explores the world of bugs from ants to fleas to butterflies. Learn about the eating patterns of a scarab beetle or watch a movie on killer bees.
7–12	U.S.	Missouri Botanical Garden http://mbgnet.mobot.org/ Explore the biomes of the world, including the rainforest and the tundra, or learn about marine and freshwater ecosystems. Each lesson investigates plant and animal life in a biome or ecosystem through words and pictures.
14–18	U.S.	The Brain: Understanding Neurobiology through the Study of Addiction http://science.education.nih.gov/supplements/nih2/addiction/default.htm Neurobiology fundamentals and how drugs change the brain.
12–13	U.S.	Chemicals, the Environment and You http://science.education.nih.gov/supplements/nih2/chemicals/default.htm An exploration of relationships between chemicals in the environment and human health.
14–18	U.S.	Sleep, Sleep Disorders and Biological Rhythms http://science.education.nih.gov/supplements/nih3/sleep/default.htm Basic scientific principles related to the nature and function of sleep and its effects on human health.
11–18	U.S.	Hands on the Land www.handsontheland.org

		A national network of field classrooms to enhance student learning at all grade levels.
11–18	U.S.	BLM Learning Landscapes www.blm.gov/education Classroom and virtual learning opportunities related to the 261 million acres of public lands overseen by the Bureau of Land Management.
14–18	U.S.	Three Dimensional Medical Reconstruction www.crd.ge.com/esl/cgsp/projects/medical Animated fly-through simulations help students explore inside the human body.
14–18	U.S.	HubbleSOURCE: Orion Nebula Fly-Through http://hubblesource.stsci.edu/sources/video/clips/details/orion.php The Orion Nebula revealed in this scientifically accurate fly-through simulation.
14–18	U.S.	Ocean Explorer Explorations http://oceanexplorer.noaa.gov/explorations/04fire/background/marianaarc/marianaarc.html Fly-through animations from a real-life ocean journey from Guam to Japan, and close-up look at the Mariana Arc volcanoes.
14–18	U.S.	North Harris College – Science Animations http://science.nhmccd.edu/biol/animatio.htm A collection of scientific animations and movies grouped by subject area.
11–18	U.S.	NASA Quest http://quest.arc.nasa.gov Includes a full online suite of resources including live interactions with NASA experts, lesson plans and collaborative activities.
14–18	U.S.	The Particle Adventure http://particleadventure.org/particleadventure An interactive tour that explores the fundamentals of matter and force
14–18	U.S.	The IrYdium Project http://ir.chem.cmu.edu/irproject A virtual chemistry lab where you can mix chemicals without wearing goggles
14–18	U.S.	Ideal Gas Law Simulation http://intro.chem.okstate.edu/1314F00/Laboratory/GLP.htm An effective tool to help students learn about all aspects of the ideal gas law
14–18	U.S.	The Interactive Plasma Physics Education Experience http://ippex.pppl.gov Interactive pages for students and educators on matter, electricity, magnetism, energy and fusion.
14–18	U.S.	Bang! Boing! Pop! Interactive Experiments in Physics http://library.thinkquest.org/3042 An interactive physics tutor designed for students to use at their own pace.
14–18	Canada	Interactive Physics and Math with Java www.physics.uoguelph.ca/applets/Intro_physics/kisalev Downloadable interactive images that illustrate math and physics principles.
14–18	U.S.	Physics Central www.physicscentral.com The latest physics news and research, plus answers to physics questions.
14–18	U.S.	Acoustics and Vibration Animations www.gmi.edu/~drussell/demos.html An excellent set of animations and notes on the behavior of sound and sound waves in numerous situations.
14–18	U.S.	The American Physical Society – A Century of Physics http://timeline.aps.org/APS/home_HighRes.html An exploration of the past hundred years of physics.

10–17	U.S.	Musical Plates – A Study of Earthquakes and Plate Tectonics http://www.k12science.org/curriculum/musicalplates2/index.shtml A real-time data project that explores the correlation between earthquakes, volcanoes and plate tectonics.
13–17	U.S.	StudyWorks Online www.studyworksonline.com The math and science behind everyday activities.
13–17	U.S.	Hands-On Universe www.handsonuniverse.org An educational program that enables students to investigate the universe.
13–17	U.S.	Cosmic Quest – Discovering Astronomy Through Science and Culture http://www.virtualmuseum.ca/Exhibitions/Cosmos/english/rover The stars, the moon and outer space explored through science, culture and aboriginal sky stories.
15–18	U.S.	Becoming Human www.becominghuman.org An online documentary that chronicles the origin and evolution of the human species.
13–18	U.S.	Course World: High School Biology Site www.courseworld.com/bindex.html A wealth of information in areas such as genetics and anatomy.
13–18	U.S.	Quia–Biology activities www.quia.com/dir/bio A compilation of 20 teacher-created biology activities.
15–18	U.S.	Water www.johnkyrk.com/H2O.html An animated overview of the chemistry of water.
15–18	U.S.	Welcome to Particle Theory http://stweb.peel.edu.on.ca/ssweb/SNC1D/Edmatters/Chemistry/Particle_Theory/ParticleTheory.htm Particle theory explored through interactive and animated tutorials.
15–18	U.S.	Visualization and Problem Solving for General Chemistry www.chem.purdue.edu/gchelp Tutorials and demonstrations from the chemistry department of Purdue University.
14–18	U.S.	EarthComm www.agiweb.org/earthcomm A site that provides students with a hands-on approach to science, an appreciation of the Earth system, and community-based projects.
14–18	U.S.	Teachearth.com http://teachearth.com Resources and programs for teaching and learning about Earth system science.
14–18	U.S.	Virtual Earthquake www.sciencecourseware.com/VirtualEarthquake An interactive program designed to introduce students to the ways in which geologists locate earthquake epicenters and determine Richter magnitudes.
14–18	U.S.	Cosmic Evolution - From Big Bang to Humankind www.tufts.edu/as/wright_center/cosmic_evolution/docs/splash.html Background information and resources to help students understand the origins of cosmic evolution.
15–18	U.S.	ISAW - Interactive Science Activities on the Web www.bridgewater.edu/departments/physics/ISAW Web-based activities that are interactive visualizations of scientific concepts.
11–18	U.S.	Exploratorium: The museum of science, art and human perception www.exploratorium.edu

		An online science museum that explores hundreds of different topics.
14–18	U.S.	The Secret Life of the Brain http://www.pbs.org/wnet/brain/index.html Reveals the fascinating processes involved in brain development across a lifetime through dynamic visual imagery and compelling human stories.
14–18	U.S.	KidsPlanet.org http://www.kidsplanet.org Fact sheets on numerous endangered and threatened species, interactive games and activities as well as a teacher's curriculum guide.
14–18	U.S.	Genetic Science Learning Center – Stem Cells in the Spotlight http://qslc.genetics.utah.edu/units/stemcells Explore the science and controversies of stem cell research. This reputable and comprehensive website created by the University of Utah received a 2004 Science and Technology Web Award from <i>Scientific American</i> magazine.
15–18	U.S.	Bartleby.com – Gray's Anatomy of the Human Body www.bartleby.com/107/ This Web site features 1,247 vibrant engravings—many in color—from the classic 1918 publication, as well as a subject index with 13,000 entries ranging from the Antrum of Highmore to the Zonule of Zinn.
14–17	U.S.	Eureka! Science www.eurekascience.com/index.htm Created by a biochemistry research firm, this site is a fun and engaging look at DNA basics for students. Visit the <i>I Can Do That!</i> part of the site for lessons covering topics from cloning to bacterial cells.
12–17	U.S.	Physics 2000 www.colorado.edu/physics/2000/index.pl This innovative site emphasizes imagery, interactivity and hierarchical organization. Cartoon characters explain advanced physics concepts.
11–17	U.S.	MEDtropolis – The Virtual Body www.medtropolis.com/vbody.asp Flash-software-based tours of the human body in English or Spanish.
11–17	U.S.	Walter Fendt's Java Applets on Physics www.walter-fendt.de/ph14e Java applets created to explore concepts such as mechanics, nuclear physics and electrodynamics.
11–17	U.S.	OhmZone www.article19.com/shockwave/oz.htm Flash-software-based activities that demonstrate how electricity and circuitry work.
14–17	U.S.	Angry Red Planet – An Access Excellence Science Mystery www.accessexcellence.org/arp/ When you volunteered to help oversee the simulated space flight to Mars, everyone warned you the job would be boring. Of course that was before the oxygen started getting low...
14–18	U.S.	DNA Interactive www.dnai.org/index.html Travel through time to chart the history of DNA science, crack the DNA code and discover the DNA science that transformed genetics and biology.
12–16	U.S.	The Pizza Explorer www.accessexcellence.org/pizza/ Through interactive, hands-on activities, students select one of the components of a pizza and learn about food chemistry, food processing, nutrition, health aspects and hot topics.
15–17	U.S.	The Cell Nucleus http://cellbio.utmb.edu/cellbio/nucleus.htm Learn about the structures that make up the cell nucleus and each other

		their functions.
15–17	U.S.	Molecular Biology Notebook www.rothamsted.bbsrc.ac.uk/notebook/courses/guide/ The beginners' guide to molecular biology. Topics include cell biology, amino acids and molecular engineering.
13–17	U.S.	The Visible Embryo www.visembryo.com/ A detailed pictorial account of normal and abnormal development which includes a comprehensive resource of information on human development from conception to birth.
14–17	U.S.	Elements with Biological Roles www.genome.ad.jp/kegg/catalog/elements.html This English-language Web site features a periodic table with biologically active elements highlighted and linked to compounds and processes found in a number of databases.
14–17	U.S.	Jefferson Lab – All about Atoms http://education.jlab.org/atomtour/ A very basic overview of atomic structure. Students can click on particles to learn more about them and even discover some fun facts about atoms!
14–18	U.S.	Human Genome Project Education Resources www.ornl.gov/sci/techresources/Human_Genome/education/education.shtml Human Genome Project resources, including lesson plans, videos and webcasts.
14–18	U.S.	Genetics Education Center www.kumc.edu/gec Instructional resources on genetics compiled by the Kansas University Medical Center.
14–18	U.S.	NetLearning – Interactive Activities www2.kumc.edu/netlearning/examples-ia.html Flash and Director software examples of chemical and biological functions.
17–18	U.S.	Discovering Psychology www.learner.org/discoveringpsychology/download.html Flash software lessons on the history of psychology, the human brain and life-span development
17–18	U.S.	Changing the Face of Medicine – Activities www.nlm.nih.gov/changingthefaceofmedicine/activities Flash software activities created by doctors on circulation, medical visits, sickle cell anemia and chromosomes.
12–16	U.S.	Nova Online – Einstein Revealed www.pbs.org/wgbh/nova/einstein Einstein's biography and theories explained through simple experiments.
12–16	U.S.	ThinkQuest – A Virtual Journey into the Universe http://library.thinkquest.org/28327 An information-rich, interactive, educational tour of the solar system.

Primary Resources (from UK and Australia)

Age	Country	Resource
5–11	Australia	Questacon Fun Zone www.questacon.edu.au/html/fun_zone.html Flash activities bring online science experiments to life.
7–11	UK	Daily Temperature Watch – Using the Internet www.qualityteachingresources.co.uk/downloads/geoKS2/temp_watch_using_internet.pdf Use a weather network to track climate patterns around the world.
5-11	UK	eChalk

		www.echalk.co.uk Flash-software-based math and science activities designed for use with an interactive whiteboard. Submitted by Dr. Iestyn Jones
--	--	--

Secondary Resources (from UK and Australia)

Age	Country	Resource
14–18	UK	Planet 10 www.solarsystem.org.uk/planet10 Interactive simulations of planets in our solar system.
14–18	Australia	Australia's Telerobot on the Web www.mech.uwa.edu.au/jpt/tele/telerobot.html A virtual robotic arm in Australia that can be manipulated from a computer anywhere in the world.
14–17	UK	BBC's Virtual Jungle www.bbc.co.uk/nature/programmes/tv/jungle Go on a multimedia exploration of one of the world's last frontiers.
11–18	UK	SMART Education–Interactive Science Activities http://smarteducation.canterbury.ac.uk/classroom-resources/interactive-websites/secondary/science Six interactive and graphical activities, perfect to use with the interactive whiteboard.
11–14	UK	Secondary Online Science (S.O.S) www.channel4.com/learning/microsites/S/sos/index.html Three fun interactive games to help students grasp concepts of science.
16–18	UK	North Harris College Interactive Biology Activities http://science.nhmccd.edu/biol/bio1int.htm Animation, movies, and interactive tutorials in each of the many levels of biology.
16–18	UK	Jim Ekstrom's Biology Resources http://science.exeter.edu/jekstrom/default.html Projects, resources, images, lab exercises and software programs available.
16–18	UK	BioMedia Associates – Learning Programs for Biology http://ebiomedia.com Includes microscopy, images, dissections, animation and teachers resources.
16–18	UK	Gondar Design Science www.purchon.com/index.html On-line biology lessons for GCSE created by a biology teacher with 31 years experience.
15–18	UK	Black Holes and Beyond http://archive.ncsa.uiuc.edu/Cyberia/NumRel/BlackHoles.html A comprehensive site exploring the science behind black holes.
15–18	UK	Cambridge Relativity: Quantum Gravity www.damtp.cam.ac.uk/user/gr/public/qg_home.html Explores the advanced quantum theories of gravity.
15–18	UK	Is Perpetual Motion Possible? www.geocities.com/mercutio78_99/index.html Animated diagrams of machines, which look like they might run forever, but they do not.
15–18	UK	Causes of Color http://webexhibits.org/causesofcolor/index.html Explore the phenomena that create our colorful world.
15–18	UK	Cool science that affects your life www.noisenet.ws/?source=Overture

		The science behind surfing, skateboarding, mobile phones, fashion, chocolate and everything else that really matters to you.
15–18	UK	The Ozone Hole Tour www.atm.ch.cam.ac.uk/tour Learn about the Ozone through this interactive tour.
15–18	UK	Creative Chemistry www.creative-chemistry.org.uk Worksheets and teaching notes, chemistry puzzles, interactive revision quizzes, and molecular models.
15–18	UK	Quia – Chemistry www.quia.com/dir/chem More than a dozen games and quizzes covering topics such as element symbols, bonding and organic naming.
15–18	UK	Chemolab http://library.thinkquest.org/C001258/flashpage.php?t=1070566194&tqskip1=1&tqtime=1204 Interactive simulations, tutorials and experiments.
15–18	UK	The Pressure Chamber http://zebu.uoregon.edu/nsf/piston.html An original, interactive site on how gases respond to changing temperature, pressure and volume.
16–18	UK	Howard Hughes Medical Institute BioInteractive www.hhmi.org/biointeractive/index.html Fully interactive biomedical laboratory simulations.
16–18	UK	Embryo Images Online www.med.unc.edu/embryo_images A tutorial that uses scanning electron micrographs to teach mammalian embryology.
16–18	UK	Seeing, Hearing and Smelling the World www.hhmi.org/senses Information on the five senses and how they effect human development.
16–18	UK	Sheep Brain Dissection: The Anatomy of Memory www.exploratorium.edu/memory/braindissection/index.html An interactive journey of the dissection of a sheep's brain, with a focus on learning about memory.
14–18	UK	BBC Interactive Timeline www.bbc.co.uk/education/rocks/flash/indexfull.html The earth's geological timeline comes alive with this highly interactive website.
15–18	UK	Sheffield ChemPuter www.shef.ac.uk/~chem/chemputer/ A set of simple interactive calculators for chemistry.
13–17	Republic of Ireland	Carbon is 4 ever Web quest www.spinaweb.ie/showcase/1124/content/intro.htm Students get into character and transform into Bond... Carbon Bond. Through a series of spy files and missions, they gather information and learn about carbon and its compounds. A fun way to get students excited about learning chemistry.