
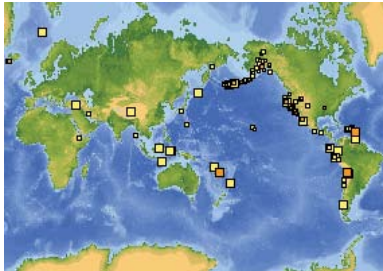
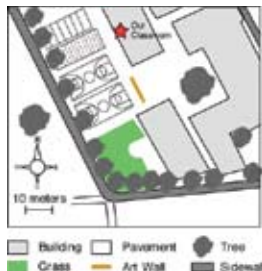

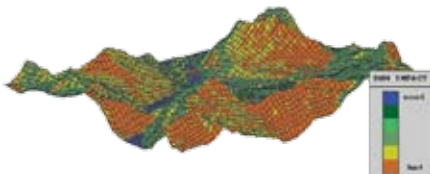
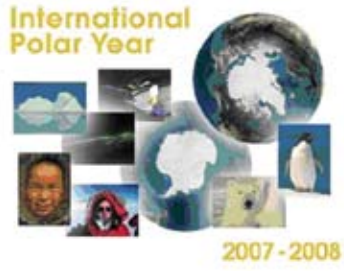



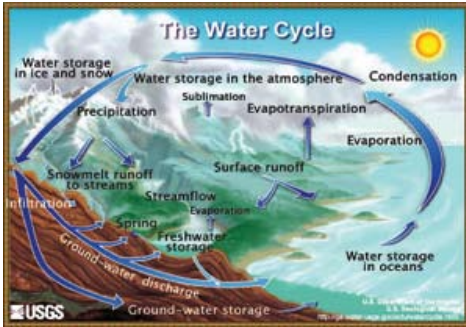






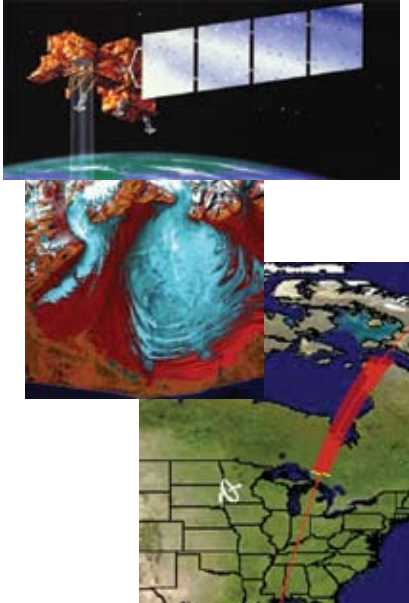

## USGS Education Resources for Teachers







# education.usgs.gov

**Discover a wealth of curricular ideas, scientific data, maps, books, and other resources to support earth science, biology, geography, and hydrology!**

Where Can I Find It?	What Can I Do With It?	What Does It Look Like?
<p><b>Educational Resources for Primary, Secondary, and University Educators and Students</b></p> <p><a href="http://education.usgs.gov">http://education.usgs.gov</a></p>	<p>Tap into 127 years of USGS research in the natural sciences in the form of maps, images of the planet, books, and much more. Also thousands of ideas are available for how to use these resources in elementary, secondary, university, and informal educational settings.</p>	
<p><b>Earthquake Hazards Program</b></p> <p><a href="http://earthquake.usgs.gov">http://earthquake.usgs.gov</a></p>	<p>Did you feel an earthquake today? Record your observations on “Did You Feel It,” and explore this extensive Web site’s other useful links to earthquake basics, activities for kids, historic quakes (1906 is at <a href="http://earthquake.usgs.gov/regional/nca/1906/index.php">http://earthquake.usgs.gov/regional/nca/1906/index.php</a>), preparedness, and much more.</p>	
<p><b>Schoolyard Geology</b></p> <p><a href="http://education.usgs.gov/schoolyard/index.html">http://education.usgs.gov/schoolyard/index.html</a></p>	<p>Wish you could take more field trips? You can! Your own schoolyard is filled with great geologic features. This Web site is chock full of activities and examples of what to look for to turn your schoolyard into a rich geologic research area.</p>	
<p><b>The Life Cycle of a Mineral Deposit</b></p> <p><a href="http://pubs.usgs.gov/gip/2005/17/">http://pubs.usgs.gov/gip/2005/17/</a></p>	<p>This teacher’s guide offers 10 activity-based learning exercises that educate students on basic geologic concepts; the processes of finding, identifying, and extracting the mineral resources from a mineral deposit; and the uses of minerals. Appendices include a glossary and a list of minerals and their uses.</p>	
<p><b>Animations and Films</b></p> <p><a href="http://education.usgs.gov/common/video_animation.htm">http://education.usgs.gov/common/video_animation.htm</a></p>	<p>A collection of USGS videos and animations for use in stand-alone lessons or lesson planning. Topics represent the broad range of USGS science and research.</p>	

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<p><b>Polar Resources</b></p> <p><a href="http://international.usgs.gov/ipy/ed_resources.shtml">http://international.usgs.gov/ipy/ed_resources.shtml</a></p>	<p>Uncover the mysteries of polar regions using USGS interactive maps, satellite imagery, and scientific studies, as seen through the eyes of the people who make all of the research happen and have their own stories to tell. Join in the celebration of the upcoming International Polar Year 2007-2009.</p>	
<p><b>3D Parks</b></p> <p><a href="http://3dparks.wr.usgs.gov/">http://3dparks.wr.usgs.gov/</a></p>	<p>Immerse yourself in our natural treasures. Take a 3D tour of our national parks featuring photographs, geology, and natural history. Let your 3D glasses be the portal of discovery for you and your students.</p>	
<p><b>Cascades Volcano Observatory</b></p> <p><a href="http://vulcan.wr.usgs.gov/Outreach/framework.html">http://vulcan.wr.usgs.gov/Outreach/framework.html</a></p>	<p>Learn about the volcanoes in our own backyard! Not only can you view real-time updates about volcanic activity, but you can build your own volcano model in your classroom and learn why volcanoes erupt.</p>	
<p><b>Real-Time Water Flow and Water Quality Data for Rivers Near Your School, Home, and Across the USA</b></p> <p><a href="http://water.usgs.gov">http://water.usgs.gov</a></p>	<p>Access real-time hydrographs that show how water levels have changed over the past month for thousands of gaging stations along streams. Compare years of floods to years of drought, and contrast the quality of water in your community with that in other locations.</p>	
<p><b>Water Science for Schools</b></p> <p><a href="http://ga.water.usgs.gov/edu/">http://ga.water.usgs.gov/edu/</a></p>	<p>Water is the world's lifeline. This interactive Web site is a terrific primer on everything you need to know about water and its crucial role on planet Earth. It includes pictures, data, maps, and tests of your water knowledge. An excellent glossary of water terms and several useful links to other water sites are included. The Water Cycle portion of the site is translated in 50 languages, and the entire site is available in Spanish.</p>	
<p><b>The National Biological Information Infrastructure</b></p> <p><a href="http://www.nbi.gov/index.html">http://www.nbi.gov/index.html</a></p>	<p>Learn about invasive plant, tree, and animal species, avian influenza, stream restoration, sustainable agriculture, biodiversity, and other biological and environmental issues critical to our world.</p>	

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<p><b>North America Amphibian Monitoring Program</b></p> <p><a href="http://www.pwrc.usgs.gov/naamp/">http://www.pwrc.usgs.gov/naamp/</a></p>	<p>Join a collaborative effort to monitor populations of vocal amphibians. The USGS provides coordination and database management. Regional partners recruit and train volunteer observers, like you, to collect amphibian population data by their unique vocalizations, such as “frog calls.”</p>	
<p><b>North American Breeding Bird Survey</b></p> <p><a href="http://www.pwrc.usgs.gov/bbs/">http://www.pwrc.usgs.gov/bbs/</a></p>	<p>Collect data to contribute to a long-term continental avian monitoring program designed to track the status and trends of North American bird populations. More than 400 species are monitored.</p>	
<p><b>Phenology/Global Climate Change</b></p> <p><a href="http://edc2.usgs.gov/phenological/">http://edc2.usgs.gov/phenological/</a></p>	<p>Are your trees blooming earlier than usual? This and other cyclical events are influenced by environmental variations and can portend global climate changes. Discover how USGS scientists are gathering data that are used to predict future climate and prepare models for scientific and practical applications. A link is also provided to the National Phenology Network.</p>	
<p><b>Looking at Earth</b></p> <p><b>EROS</b> <a href="http://eros.usgs.gov/">http://eros.usgs.gov/</a></p> <p><b>Glovis</b> <a href="http://glovis.usgs.gov">http://glovis.usgs.gov</a></p> <p><b>Earthshots</b> <a href="http://edc.usgs.gov/earthshots/slow/tableofcontents">http://edc.usgs.gov/earthshots/slow/tableofcontents</a></p> <p><b>Earth Now! Landsat Image Viewer</b> <a href="http://earthnow.usgs.gov">earthnow.usgs.gov</a></p>	<p><b>EROS</b> (The USGS Center for Earth Resources Observation and Science) Gateways to exploring our changing world with views of Earth from space.</p> <p><b>Glovis</b> (Global Visualization) Landsat and other satellite images of any place on Earth.</p> <p><b>Earthshots</b> (Satellite Images of Environmental Change) Ebook of before-and-after Landsat images (1972 to present) showing recent environmental events and introducing remote sensing.</p> <p>The <b>Earthnow! Landsat Image Viewer</b> provides a live feed of images from the Landsat 5 and Landsat 7 satellites used to monitor changes in the Earth’s land surface.</p>	
<p><b>The GPS Class</b></p> <p><a href="http://education.usgs.gov/common/lessons/gps.html">http://education.usgs.gov/common/lessons/gps.html</a></p>	<p>Find your place! GPS is huge. Learn about how to use Global Positioning Systems for education and recreation in geocaching, physical processes, field data collection, and more.</p>	

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<p><b>The National Atlas</b></p> <p><a href="http://nationalatlas.gov">http://nationalatlas.gov</a></p>	<p>Make your own customized maps using data sets from the USGS and 17 other organizations — everything from A (aquifers) to Z (zebra mussels).</p>	
<p><b>Teaching with Topographic Maps</b></p> <p><a href="http://education.usgs.gov/common/lessons/teaching_with_topographic_maps.html">http://education.usgs.gov/common/lessons/teaching_with_topographic_maps.html</a></p>	<p>Discover over 25 ways to use USGS topographic maps as an effective tool to teach about landforms, human impact, river systems, coordinate systems, GPS, and much more.</p>	
<p><b>Find a Map!</b></p> <p><a href="http://education.usgs.gov/common/map_databases.htm">http://education.usgs.gov/common/map_databases.htm</a></p>	<p>Maps R Us! Find and use topographic maps, aerial photographs, satellite images, geologic maps, and other map data for the curriculum.</p>	
<p><b>USGS Publications Warehouse</b></p> <p><a href="http://pubs.usgs.gov">http://pubs.usgs.gov</a></p>	<p>Find and browse over 1 million books and journals, 450,000 maps, 250,000 photographs, and more, representing over 127 years of USGS science.</p>	
<p><b>Personalized, Expert Help</b></p> <p><b>ASK USGS</b></p> <p><a href="http://ask.usgs.gov">http://ask.usgs.gov</a></p>	<p>The USGS is more than scientific studies in maps, books, and online. Discover how to access and use the best USGS resource of all — its people. Our Natural Science Network can help you find and use our resources, whether you are an educator, student, or interested citizen.</p>	
<p><b>Scientists in Action</b></p> <p><a href="http://mac.usgs.gov/isb/pubs/booklets/scientists/index.html">http://mac.usgs.gov/isb/pubs/booklets/scientists/index.html</a></p>	<p>Discover how scientists contribute to society, what it would be like to work as a scientist, and how you can get involved with science — even while you are still a student.</p>	
<p><b>USGS Employment</b></p> <p><a href="http://www.usgs.gov/ohr/">http://www.usgs.gov/ohr/</a></p>	<p>Search and apply for job openings, internships, postdoctoral fellowships, and volunteer opportunities at the USGS. Discover the benefits of working for one of the largest science organizations in the world.</p>	