
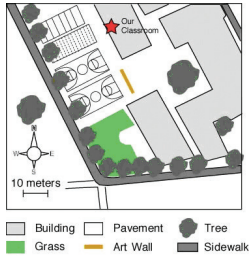

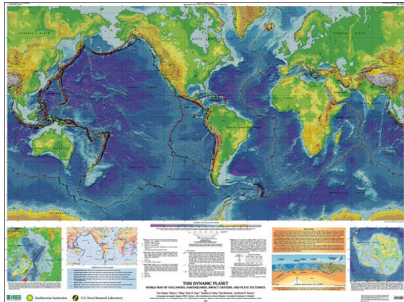
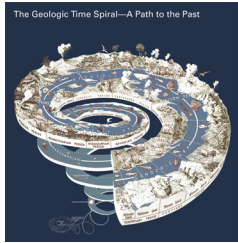



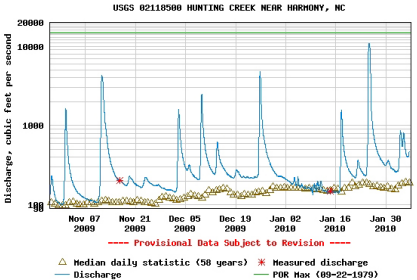
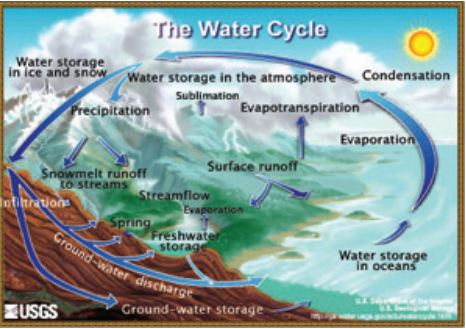

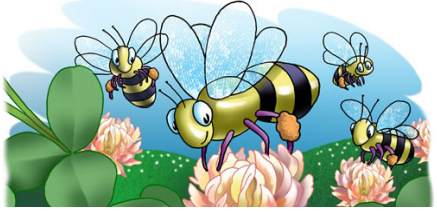
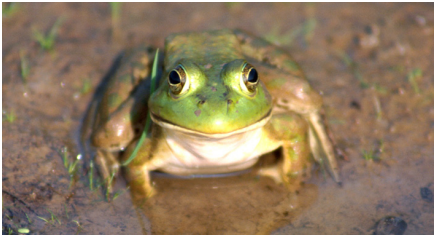

USGS Education Resources for Teachers

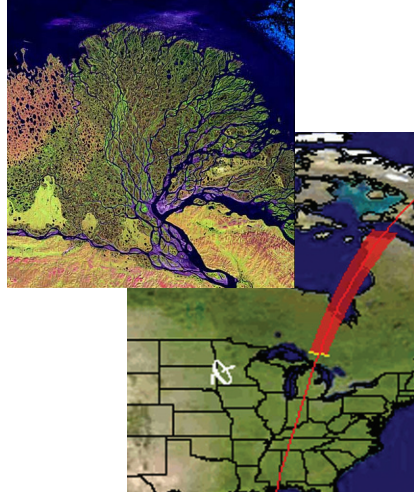



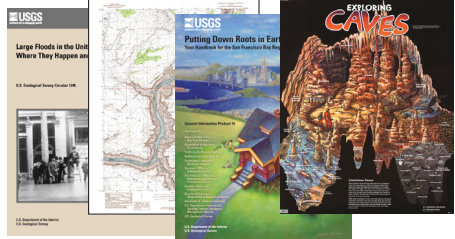
education.usgs.gov

Discover a wealth of curricular ideas, scientific data, maps, and other resources to support biology, geography, geology, geospatial data, and hydrology!

Where Can I Find It?	What Can I Do With It?	What Does It Look Like?
<p>Educational Resources for Primary, Secondary, and University Educators and Students</p> <p>http://education.usgs.gov</p>	<p>Tap into over 130 years of USGS research in the natural sciences in the form of lesson plans and activities, maps, podcasts, online lectures, videos and animations, and much more. Browse thousands of ideas for using these resources in elementary, secondary, university, and informal education settings.</p>	
<p>Online Lectures</p> <p>http://education.usgs.gov/lectures.html</p>	<p>Bring USGS scientists directly into your classroom through high-resolution online lectures covering topics from biology to volcanoes. Most lectures are targeted to a general audience and are suitable for grades 8 through university.</p>	
<p>Educational Animations and Films</p> <p>http://education.usgs.gov/videos.html</p>	<p>Enliven classroom presentations with this collection of USGS videos and animations for use in stand-alone lessons or lesson planning. Contents represent the broad scope of USGS science and range from 10 second animations to hour-long, award winning films.</p>	
<p>Social Media</p> <p>http://www.usgs.gov/socialmedia</p>	<p>Keep up with USGS science through social media. Follow the USGS on Twitter and Facebook; subscribe to news feeds and real-time earthquake alerts; listen to podcasts about current events; and get automatic updates on science topics, new publications, and new videos.</p>	
<p>Earthquake Hazards</p> <p>http://earthquake.usgs.gov</p>	<p>Did you feel an earthquake today? Check out real-time earthquake information, record your own earthquake observations, and sign up for automatic earthquake alerts. Explore links to earthquake FAQs, summary posters, ShakeMaps, historical events, preparedness, and more.</p>	

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<p>Volcano Resources for Educators</p> <p>http://volcanoes.usgs.gov/about</p>	<p>Learn about volcanoes in the United States, and around the globe! Check out the Volcano Status Map for real-time information, read volcano FAQs, download educational posters and teacher guidebooks, view volcano movies, and explore additional teaching resources.</p>	
<p>Schoolyard Geology</p> <p>http://education.usgs.gov/lessons/schoolyard</p>	<p>Wish you could take more field trips? You can! Your own schoolyard is filled with features analogous to geologic concepts. Discover activities and methods for turning your schoolyard into a rich investigative experience.</p>	
<p>The Life Cycle of a Mineral Deposit</p> <p>http://pubs.usgs.gov/gip/2005/17</p>	<p>Introduce students to minerals through ten activity-based learning exercises. A teacher's guide covers basic geologic concepts; the processes of finding, identifying, and extracting mineral resources; and the uses of minerals. Includes a glossary and a list of minerals and their uses. K-12.</p>	
<p>This Dynamic Planet & This Dynamic Earth</p> <p>http://pubs.usgs.gov/imap/2800</p>	<p>Gain an understanding of the forces that shape our continents through our top-selling map (<i>This Dynamic Planet</i>) showing tectonic plates, earthquakes, volcanoes, and impact craters. Follow a link to <i>This Dynamic Earth</i>, the most referenced source on plate tectonics. Both publications are designed for classroom use.</p>	
<p>The Geologic Time Spiral: A Path to the Past</p> <p>http://pubs.usgs.gov/gip/2008/58</p>	<p>The evolution of the Earth's plants and animals is recorded in its rock layers. Download or view this poster showing a bird's-eye look at the progression of geologic time and life on Earth.</p>	
<p>Astrogeology</p> <p>http://astrogeology.usgs.gov</p>	<p>Use "Map-a-Planet" to customize and download your own images of the Moon, Mars, Venus, and other planets and moons. View beautiful planetary images and topography from various missions. Explore a planetary GIS database consisting of digital geologic maps, feature maps, topography, and remote-sensing data.</p>	

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<p>Real-Time Water Flow and Water Quality Data for Rivers Near Your School, Home, and Across the USA</p> <p>http://water.usgs.gov</p>	<p>Access real-time hydrographs that show how water levels have changed over time at thousands of gaging stations along streams and rivers. Compare years of floods to years of drought, and contrast the quality of water in your community with that in other locations.</p>	
<p>Water Science for Schools</p> <p>http://ga.water.usgs.gov/edu</p>	<p>Dive into this interactive primer on everything you need to know about water and its crucial role on planet Earth. Includes pictures, data, maps, and tests of your water knowledge. An excellent glossary of water terms and useful links to other water sites are included. The Water Cycle portion of the site is translated into 50 languages, and the entire site is available in Spanish.</p>	
<p>Global Climate Change</p> <p>http://www.usgs.gov/global_change</p>	<p>Explore aspects of climate change science including sea-level change, impacts on polar bears and other species, carbon sequestration, drought, glaciers, coral mortality, and more.</p>	
<p>USGS Kids</p> <p>http://education.usgs.gov/kids</p>	<p>Learn about biology in the K-6 classroom through stories, nature games, coloring pages, puzzles, and fun projects. Topics include bee population declines, climate change, dealing with wildlife, and animal sounds.</p>	
<p>North America Amphibian Monitoring Program</p> <p>http://www.pwrc.usgs.gov/naamp</p>	<p>Join a collaborative effort to monitor populations of vocal amphibians. The USGS provides coordination and database management. Regional partners recruit and train volunteers like you, to collect amphibian population data by their unique vocalizations. Grades 10 and up.</p>	
<p>North American Breeding Bird Survey</p> <p>http://www.pwrc.usgs.gov/bbs</p>	<p>Get involved by collecting data to contribute to a long-term avian monitoring program that tracks the status and trends of North American bird populations. More than 400 species are monitored. Take the Bird Quiz after exploring videos, descriptions, and bird songs. Grades 10 and up.</p>	

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<p>Looking at the Earth</p> <p>Image Gallery http://eros.usgs.gov/imagegallery</p> <p>Earthshots http://earthshots.usgs.gov</p> <p>EarthNow! Landsat Image Viewer http://earthnow.usgs.gov</p>	<p>Image Gallery: High-resolution, downloadable satellite images that showcase individual states and scenes of distinctive aesthetic beauty.</p> <p>Earthshots: A collection of before-and-after Landsat satellite images showing environmental change and introducing remote sensing concepts.</p> <p>EarthNow! Landsat Image Viewer: Watch a mesmerizing live feed of images from the Landsat 5 and Landsat 7 satellites that monitor changes in the Earth's land surface.</p>	
<p>The National Atlas</p> <p>http://nationalatlas.gov</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). Also download pre-made page size maps including outline maps of the U.S., presidential election maps, territory acquisitions, and more.</p>	
<p>Teaching with Topographic Maps</p> <p>http://education.usgs.gov/lessons/teachingtopomaps.html</p>	<p>Discover over 27 ways to use USGS topographic maps as an effective tool to teach about topics like coordinate systems, datums, map projections, geographic names, physical features, the Public Land Survey System, and topographic profiles.</p>	
<p>Park Geology in 3D</p> <p>http://3dparks.wr.usgs.gov/index.html</p>	<p>Take a 3D or standard photography tour of the rocks and geology in over 60 national parks, monuments, historic sites, forests, and other public areas.</p>	
<p>USGS Store</p> <p>http://store.usgs.gov</p>	<p>Browse the Education Products section of the USGS Store to find maps, posters, and publications appropriate for the classroom. Use the Map Locator to find and download free digital topographic maps including the new generation US Topo maps.</p>	
<p>ASK USGS - Personalized, Expert Help</p> <p>http://ask.usgs.gov or 1-888-ASK-USGS (1-888-275-8747)</p>	<p>Access and use the best USGS resource of all — its people. Our Science Information Services (SIS) network of information specialists can help you find and use our science information and our products, whether you are an educator, a student, or an interested citizen.</p>	