
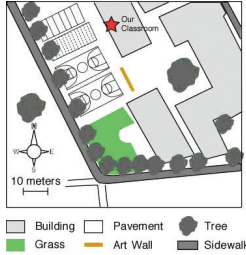

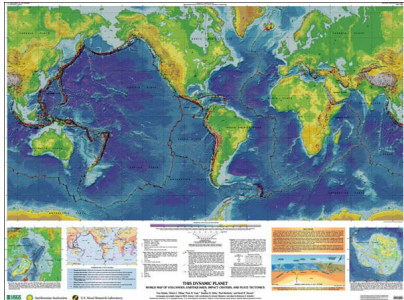
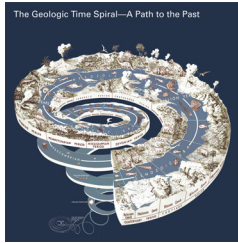



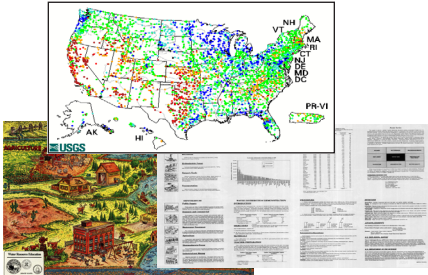
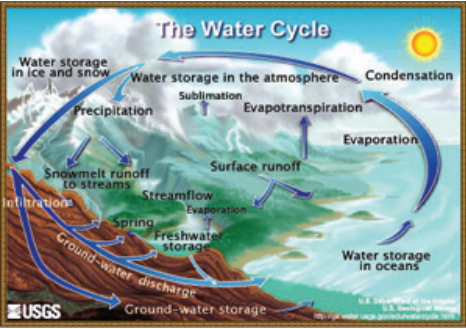


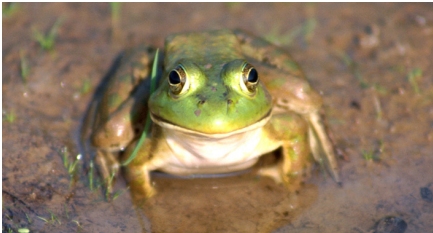

USGS Education Resources for Teachers


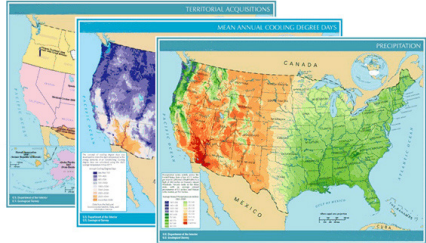
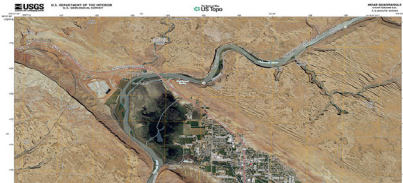

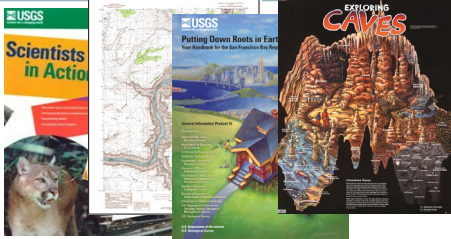
education.usgs.gov

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?
Educational Resources for Primary, Secondary, and University Educators and Students http://education.usgs.gov	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.	
Online Lectures http://education.usgs.gov/lectures.html	Bring USGS scientists directly into your classroom through high-resolution online lectures (60-90 minutes) covering topics from biology to volcanoes. Most lectures are targeted to a general audience and are suitable for grades 8 through university.	
Educational Animations and Films http://education.usgs.gov/videos.html	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.	
Social Media http://www.usgs.gov/socialmedia	Keep up with USGS science through social media. Follow the USGS on Twitter, Facebook, YouTube, and Google+; subscribe to news feeds and real-time hazard alerts; listen to podcasts about current events; and get automatic updates on many science topics.	
Earthquake Hazards http://earthquake.usgs.gov	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.	

Where Can I Find It?	What Can I Do With It?	What Does It Look Like?
Volcano Resources for Educators http://volcanoes.usgs.gov/about	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.	
Schoolyard Geology http://education.usgs.gov/lessons/schoolyard	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.	
The Life Cycle of a Mineral Deposit http://pubs.usgs.gov/gip/2005/17	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.	
This Dynamic Planet & This Dynamic Earth http://pubs.usgs.gov/imap/2800	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.	
The Geologic Time Spiral: A Path to the Past http://pubs.usgs.gov/gip/2008/58	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.	
Park Geology in 3D http://3dparks.wr.usgs.gov	Take a 3D or standard photography tour of the rocks and geology in over 60 national parks, national monuments, national historic sites, national forests, and other public areas. Includes photography from historical expeditions in several western locations.	

Where Can I Find It?	What Can I Do With It?	What Does It Look Like?
<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/education.html</p>	<p>Learn about USGS science in your watershed, and explore a wealth of very basic information about surface water, groundwater, floods, drought, water use, and water quality. There are materials suitable for all grade levels. Lessons and activities are on the back of the Water Education Posters.</p>	
<p>Water Science School</p> <p>http://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>Citizen Science</p> <p>http://txpub.usgs.gov/myscience</p>	<p>Contribute to regional and national scientific databases by collecting information about volcanic ash, watersheds, maps, earthquakes, phenology, and landslides. These are great projects for individuals or entire classrooms.</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>	

Where Can I Find It?	What Can I Do With It?	What Does It Look Like?
<p>Looking at the Earth</p> <p>Tracking Change Over Time http://eros.usgs.gov/Educational-Activities</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>Tracking Change Over Time: Lesson plans for teaching students how scientists use satellite images to study the changing Earth.</p> <p>Image Gallery: High-resolution, downloadable satellite images that showcase individual states and scenes of distinctive beauty.</p> <p>Earthshots: Explore before-and-after 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 satellites.</p>	
<p>Printable Maps</p> <p>http://nationalmap.gov/small_scale/printable.html</p>	<p>Do you need a simple, prepared map that you can print at home or at school?. These page-sized maps are available for the entire U.S. or for individual states, and include outline maps of the states (labeled and unlabeled), rivers and lakes, counties, presidential elections, territorial acquisitions, and much more.</p>	
<p>US Topo Quads -- Maps for America</p> <p>http://nationalmap.gov/ustopo</p>	<p>Download free, digital topographic maps through the USGS Store, along with free analytical and viewing tools. Turn individual data layers on and off. Layers include topographic contours and orthoimagery (rectified air photos).</p>	
<p>Teaching with Topographic Maps</p> <p>http://education.usgs.gov/lessons/mapresources.html</p>	<p>Discover 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>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 and Downloader 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://www.usgs.gov/ask (email form or Live Chat)</p> <p>or</p> <p>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 resources and our products, whether you are an educator, a student, or an interested citizen.</p>	