



Red River Center
For Watershed Education

GIS/GPS Web links and Resources

ESRI GIS Program for U.S. 4-H

<http://www.esri.com/industries/k-12/4-h/index.html>

This program has been established to support national 4-H efforts aimed at bringing GIS and other geospatial technologies to young people and qualified adults involved with U.S. 4-H clubs and related state and national coordinating organizations.

GIS 2 GPS Portal

<http://www.gis2gps.com/>

This site was developed by educators for educators and students. The goal of this site is to make educators and students aware of these two new emerging technologies, Geographical Information System (GIS) and Global Positioning System (GPS). On this site educators can find useful links, lesson plans and find classroom resources and ideas they can use with their projects.

Garmin GPS Products

<http://www.garmin.com/outdoor/products.html#basic>

Learn more about GPS units

The Official Global GPS Cache Hunt Site

<http://www.geocaching.com/>

Geocaching is an entertaining adventure game for GPS users. Participating in a cache hunt is a good way to take advantage of the wonderful features and capability of a GPS unit. The basic idea is to have individuals and organizations set up caches all over the world and share the locations of these caches on the internet. GPS users can then use the location coordinates to find the caches. Once found, a cache may provide the visitor with a wide variety of rewards. All the visitor is asked to do is if they get something they should try to leave something for the cache.

Illinois Educational Geocaching Association

<http://www.ilega.org/>

ILEGA exists to enhance the GPS experiences and Geocaching experiences in the educational communities across the State of Illinois by sharing ideas, projects and information.

Youth Favorite Places

<http://youthfavoriteplaces.org/>

Youth across America share and promote their own favorite places using GIS-GPS and Internet technologies.

The National Map Corps

<http://nationalmap.gov/TheNationalMapCorps/>

The National Map Corps consists of private citizens who devote some of their time to provide mapping information to the U.S. Geological Survey's The National Map. The National Map Corps has agreed to work with 4-H clubs.

USGS Rocky Mountain Mapping Center

<http://rockyweb.cr.usgs.gov/outreach/>

Educational resources and projects from USGS for GIS and GPS:

- examining land use change using high-resolution aerial photographs for 1995, 1999, and 2002
- examining map mysteries as a meteor crater in Nebraska, coastal erosion in Maryland, and the mouth of the Mississippi with the framework of using every USGS map as a means of uncovering mysteries about the Earth and its life
- examining how the Aral Sea, Iran, Brazil, Texas, and other places around the world have changed due to natural hazards and human impact via Landsat satellite imagery
- investigating this week's earthquakes around the world using USGS Earthquake Data on the Internet and GIS as part of a unit on natural hazards
- teaching with topographic maps in Geography, Science, Environmental Studies, and Mathematics curricula

Benchmark Hunting

<http://www.geocaching.com/mark/>

Benchmark Hunting means using your GPS unit and/or written directions provided by NGS, which are available for review by the public, and seeking out NGS survey markers and other items that have been marked in the USA.

ARC Lessons

http://gis2.esri.com/industries/education/arclessons/search_results.cfm

A large collection of lesson plans using ArcView or ArcVoyager software.

Two GPS lessons

Follow Me If You Can

<http://www.chicos.caltech.edu/classroom/GPS/GPSActivity1.html>

Catch Me If You Can

<http://www.chicos.caltech.edu/classroom/GPS/GPSActivity2.html>

EduScapes - Geocaching with Kids

<http://www.eduscapes.com/geocaching/kids.htm>

Browse this article for tips and tricks related to geocaching with kids. The website also provides information for finding and creating geocaches as well as frequently asked questions.

From A Distance

<http://wwwedu.ssc.nasa.gov/fad.asp>

Explore this site from NASA to find lesson plans and resources to help your students learn more about remote sensing, GIS, and GPS.

Eartcaching

<http://www.geosociety.org/earthcache/>

Earthcaching – an offshoot of geocaching - takes people to sites of geological interest.

GPSSGames.org

<http://www.gpsgames.org/>

This site features several "games" using GPS receivers that might give you a few ideas for your classroom activities. Also visit the [GISLounge](#) for more ideas!

IAGT.com Lesson Plans & Resources

<http://www.iagt.org/resources/lesson.asp>

Visit this site for an assortment of interesting lesson ideas for remote sensing, GIS, and GPS.

LANE E.S.D. GPS Resources

<http://www.lane.k12.or.us/insttech/vtc/gps.html>

This website provides a wealth of information for teachers wanting to utilize GPS technology in their classrooms. Topics include resources, Geocaching, lesson plans, and real-life applications.

National Geographic Xpeditions

http://www.marcopolosearch.org/MPSearch/Search_Results.asp?orgn_id=4&log_type=1&hdnFilter=&hdnPerPage=15&txtSearchFor=GPS&selUsing=all

Explore the search results to find quality GPS resources for your geography unit.

NCGA - Satellite Science

<http://www.ncga.com/education/unit5/u5l3.html>

This site provides instructions for constructing a model of a GPS satellite and resources for learning its applications in agriculture.

NOVA - Science in the News

<http://www.science.org.au/nova/066/066act.htm>

This page provides links to online resources and classroom activities to help you integrate GPS technology.

The TECH - Satellite Site

http://www.thetech.org/exhibits_events/online/satellite/

A great site to explore with your students to learn more about how satellites work and try creating your own satellite with their interactive program.

Transforming Teaching Through Technology

http://t4.jordan.k12.ut.us/teacher_resources/Science/gps.html

A collection of lesson ideas, online resources, and more to help you make more of your GPS unit.

Mapping Resources

Google Earth

<http://earth.google.com/>

Google Earth combines satellite imagery, maps and the power of Google Search to put the world's geographic information at your fingertips.

Google Maps and Satellite

<http://maps.google.com/>

Have students type in a street address in the Google Maps search box; once the address is located, have them choose "satellite" to get a view of the address from space. Students can also pan around and see other features in the area. Students can even create a URL to link directly to the satellite location.

GIS Data for North Dakota

<http://www.nd.gov/gis/mapsdata/data/>

Download GIS data for North Dakota at no cost

GIS Data for Minnesota

http://deli.dnr.state.mn.us/data_search.html

Download GIS data for Minnesota at no cost

National Atlas of the USA

<http://nationalatlas.gov/>

Create and print maps with layers

TerraServer

<http://www.terra-server.com>

The TerraServer-USA Web site is one of the world's largest online databases, providing free public access to a vast data store of maps and aerial photographs of the United States.

U.S. Geological Survey

<http://education.usgs.gov/common/lessons/gis.html>

Educational Resources for teachers and students

Xpeditions-nationalgeographic

<http://www.nationalgeographic.com/xpeditions/>

Xpeditions is home to the U.S. National Geography Standards—and to thousands of ideas, tools, and interactive adventures that bring them to life.

International Water Institute

<http://www.internationalwaterinstitute.org/>

The Red River Center for Watershed Education was formed to create and implement education and professional programs in watershed science. The Center partners with K-12 and community education, resource management professionals, and decision makers in an effort to enhance leadership capacity and decision making in surface water quality issues affecting the Red River of the North Watershed.

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