

Exploring the World, United States, and North Carolina using the Internet: Resources for Geographic Education

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The Internet is an impressive conduit for the exchange of information and ideas. Comparisons have been made between the Internet and the Silk Road, an earlier and much slower diffusion route(s) among far-flung cultures and regions. Just like on the Silk Road, there are bandits on the Internet. These bandits materialize as computer viruses, questionable data, erroneous "facts," spelling and grammatical errors, poor analysis, passwords, closed-down sites, and the like. Nevertheless, there is a plethora of appropriate Internet resources (maps, digital boundary files, graphics, photographs, encyclopedias, newspapers, lesson plans, educational games, software, quizzes, and more!) that can illustrate the National Geography Standards.

The American Geographical Society, Association of American Geographers, National Council for Geographic Education, and the National Geographic Society were instrumental in developing the National Geography Standards. The standards define the scope (what) and sequence (when) of a geography curriculum. The National Geography Standards were published in *Geography for Life* (Geography Education Standards Project, 1994) and have become integral to students and teachers of geographic education. The eighteen standards are organized under the following six essential elements: The World in Spatial Terms, Places and Regions, Physical Systems, Human Systems, Environment and Society, and The Uses of Geography.

The entitled list "Exploring the World, United States, and North Carolina using the Internet: Resources for Geographic Education," includes Web sites that are useful to illustrate the National Geography Standards. Students and instructors, however, must use judgment in the selection of such on-line information. Sites were selected for inclusion in this list on the basis of meeting, if possible, the following criteria: a) free public access; b) sites representing organizations from the United States or North Carolina; c) government or educational sites; d) commercial sites promoting geographic education; e) sites updated on a real-time, daily, annual or periodic basis; and if available, f) animated or interactive sites (Albert, 2000a; 2000b). Please visit www.ncge.org for a national-level hyper-linked slide presentation version of this educational resource (Albert, forthcoming).

References

- Albert, D. (2000a), "Selecting Internet Sites to Supplement Course Materials," *Perspective*, 28(6):9-10.
_____. (2000b), "Learning Activity: Web Sites to Reinforce Geography Standards," *Perspective*, 28(6): 13-14.
_____. (forthcoming), "Internet Resources for Geographic Education" [hyper-linked slide presentation on www.ncge.org]. Indiana, PA: National Council for Geographic Education.
Geography Education Standards Project. (1994), *Geography for Life: The National Geography Standards*. Washington, DC: National Geographic Society.

I. The World in Spatial Terms

Standard 1. How to use maps and other geographic representations, tools, and technologies to acquire, process, and report information from a spatial perspective

<http://www.odci.gov/cia/publications/factbook/index.html>

The World Factbook 2000

Country Listing, Reference Maps, Notes and Definitions, Appendixes

<http://www-atlas.usgs.gov/>

United States Geological Survey, *National Atlas of the United States*

Atlas Maps, National Maps Online, Interactive Map Browser, Multimedia Maps,
Map Layers Warehouse, Printed Maps

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

MAPQUEST

Maps, Driving Directions, Live Traffic Reports, Yellow & White Pages, Travel Guide,
City Guide

http://metalab.unc.edu/uncpress/features/orr/more_ncatlas.html

The North Carolina Atlas: Portrait for a New Century by Douglas M. Orr Jr. and Alfred W. Stuart (Table of Contents and Chapter 1)

<http://www.dot.state.nc.us/>

North Carolina Department of Transportation

Transportation: Highway, Rail, Public, Aviation, Ferry, Bicycle, Pedestrian
Real-Time Traffic (I-40 cameras)
Transportation Improvement Plan (TIP)
State Travel Map

Standard 2. How to use mental maps to organize information about people, places, and environments in a spatial context

<http://geography.miningco.com/science/geography/library/weekly/aa121597.htm>

About.com – Matt Rosenberg

Mental Maps

Cognitive Site Mapping: Placing Yourself in Context
Geography Standard One Sample Activities
Mental Mapping from the National Geographic Society
World Mental Maps

Standard 3. How to analyze the spatial organization of people, places, and environments on earth's surface

<http://www.ncgia.ucsb.edu/>

National Center for Geographic Information & Analysis
GIS

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

Environmental Systems Research Institute, Inc.

ESRI Library

Introduction to GIS

GIS Glossary

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

INTERGRAPH

Education

Intergraph Program for Schools

Introduction to GIS for Schools (FREE CD)

<http://www.cgia.state.nc.us/>

Geographic Information North Carolina

MAPNET

Geographic Data Clearinghouse

Center for Geographic Information and Analysis

Geographic Information Coordinating Council

II. Places and Regions

Standard 4. The physical and human characteristics of places

http://www.state.gov/www/background_notes/

Background Notes, U.S. State Department

Geographic Regions

Africa, Middle East and North Africa, East Asia and the Pacific, South Asia, Europe

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

TopoZone

Interactive Topographic Maps (US)

<http://terraserver.microsoft.com/>

TerraSever (Air Photographs)

View Images, Application, TerraServer Imagery, Education, Tools

Standard 5. That people create regions to interpret earth's complexity

<http://www.whitehouse.gov/OMB/inforeg/msa-bull99-04.html>

OMB Bulletin No. 99-04: Revised Statistical Definitions of Metropolitan Areas (MAs) and Guidance on Uses of MA Definitions (June 30, 1999)

<http://www.tjcog.dst.nc.us/nccogs.htm>

North Carolina Councils of Government

Standard 6. How culture and experience influence people's perceptions of places and regions

<http://www.unctv.org/onlinestore/places.html>

UNC-TV Online Store

North Carolina Is My Home by Charles Kuralt and Loonis McGlohon (book and video)

Pinehurst (video narrated by Charles Kuralt)

To Be a North Carolinian (video)

III. Physical Systems**Standard 7. The physical processes that shape the patterns of earth's surface**

<http://www.usgs.gov/>

United States Geological Survey

USGS Information by State (North Carolina), Earthquakes, Floods, Maps,
Volcanoes, More Topics!!!!

<http://www.geology.enr.state.nc.us/>

North Carolina Geological Survey

<http://www.nws.noaa.gov/>

National Weather Service, National Oceanic and Atmospheric Administration

<http://www.usatoday.com/weather/wfront.htm>

USA Today Weather

<http://www.usatoday.com/weather/basemaps/states/wfnc.htm>

USA Today Weather – North Carolina

<http://www.nc-climate.ncsu.edu/sco/welcome.html>

State Climate Office of North Carolina

Standard 8. The characteristics and spatial distribution of ecosystems on earth's surface

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

World Wildlife Fund

Kids

Educators

<http://www.nps.gov/parks.html>

National Park Service

IV. Human Systems

Standard 9. The characteristics, distribution, and migration of human populations on earth's surface

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

Population Reference Bureau

<http://www.census.gov/>

United States Bureau of the Census

<http://www.ospl.state.nc.us/>

Office of State Planning

Strategic Planning & Analysis, State Data Center, State Demographics, Center for Geographic Information & Analysis, Community Resource Information System, Geodetic Survey

<http://www.cdc.gov/nchs/products/pubs/pubd/other/atlas/atlas.htm>

Atlas of United States Mortality

<http://www.schs.state.nc.us/SCHS/>

North Carolina Center for Health Statistics

Birth Certificates, Health Statistics, Publications, Related Links

<http://www.chsrd.med.ecu.edu/atlas-2000-updates/ppframe.htm>

Atlas 2000 Updates, Eastern North Carolina Health Care Atlas (Slide Presentation)

Standard 10. The characteristics, distribution, and complexity of earth's cultural mosaics

<http://www.odci.gov/cia/publications/factbook/in.html>

The World Factbook 2000

Geography, People, Government, Economy, and more!!!

<http://people.morehead-st.edu/fs/t.pitts/mainmenu.htm>

The Geography of Religion Website Menu

Basics, Buddhism, Confucianism, Hinduism, Jainism, Islam, Judaism, Orthodox Christianity, Protestantism, Catholicism, Rastafarianism, Shintoism, Sikhism, Taoism, Other Religions

Standard 11. The patterns and networks of economic interdependence on earth's surface

<http://www.mac.doc.gov/nafta/nafta2.htm>

The NAFTA Home Page

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

The European Union

<http://www.census.gov/epcd/www/econ97.html>

Economic Census 1997

National Figures

Industry, Subject, and Geographic Areas Series

<http://www.commerce.state.nc.us/>

North Carolina Department of Commerce

Business, Vacation, Entertainment Industries, Communities

<http://www.usda.gov/nass/>

United States Department of Agriculture, National Agriculture Statistics Service

Publications, Graphics, Historical Data, Search, State Information, Census of Agriculture

<http://www.agr.state.nc.us/>

North Carolina Department of Agriculture and Consumer Services

<http://www.ces.ncsu.edu/>

NC Cooperative Extension

Standard 12. The processes, patterns, and functions of human settlement

<http://geography.about.com/education/geography/msub9.htm>

About.com – Geography

Cities and Urban Geography

Edge Cities

Largest Cities

The Law of the Primate City and Rank-Size Rule

Levittown

Megalopolis

Metropolitan Areas Population Estimates

Sprawl

Urban Planning and the New Urbanism

The Von Thunen Models

And More!!!

Standard 13. How the forces of cooperation and conflict among people influence the division and control of earth's surface

<http://www.odci.gov/cia/publications/factbook/index.html>

The World Factbook 2000 – Appendixes

Abbreviations

United Nations System

International Organizations,

Selected International Environmental Agreements

<http://www.nato.int/home.htm>
North Atlantic Treaty Organization

V. Environment and Society

Standard 14. How human actions modify the physical environment

<http://edcwww.cr.usgs.gov/earthshots/slow/tableofcontents>
USGS, Earthshots: Satellite Images of Environmental Change (remote sensing images and supporting articles)

Standard 15. How physical systems affect human systems

<http://www.fema.gov/maps/>
Federal Emergency Management Agency
Disaster Mapping and Analysis Center
Interactive Hazard Mapping
Flood Hazard Mapping
Library Map Room

Standard 16. The changes that occur in the meaning, use, distribution, and importance of resources

<http://www.eia.doe.gov/kids/>
Energy Information Administration
Welcome to the EIA Kid's Page
Energy Sources
Natural Gas, Coal, Electricity, Oil, Nuclear, Geothermal, Wind,
Water, Biomass, Solar
Energy Users

<http://www.energy.state.nc.us/>
North Carolina Energy Division, Department of Commerce
Business Recruitment, NC Visitors, Exporting, Recreation Industry, Employment
& Training, Department Organization, Government Technology, Community
Assistance, Economic Data

<http://www.enr.state.nc.us/>
North Carolina Department of Environment & Natural Resources

VI. The Uses of Geography

Standard 17. How to apply geography to interpret the past

<http://memory.loc.gov/ammem/gmdhtml/gmdhome.html>
American Memory – Library of Congress
Map Collections: 1544-1999

Cities and Towns
 Conservation and Environment
 Discovery and Exploration
 Immigration and Settlement
 Military Battles and Campaigns
 Transportation and Communication
 General Maps

<http://www.lib.unc.edu/maps/collection.html>

UNC-Chapel Hill Libraries, Wilson Library – Maps Collection

Standard 18. How to apply geography to interpret the present and plan for the future

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

Association of American Geographers

Careers in Geography

Specialty Groups

<http://agsg.freac.fsu.edu/>

Applied Geography Specialty Group

Other Internet Sites of Geographic Interest

<http://www.state.nc.us/>

The Official Web Site of North Carolina

<http://www.colorado.edu/geography/virtdept/contents.html>

The Virtual Geography Department

<http://www.ed.gov/pubs/parents/Geography/index.html>

U.S. Department of Education, Office of Research and Improvement, *Helping Your Child Learn Geography*

<http://www.ncge.org/tutorial/introduction.html>

National Council for Geographic Education, *Geography for Life Tutorial*

<http://geography.state.gov/htmls/statehome.html>

Department of State, Geographic Learning Site

Where Do U.S. Diplomats Work?

Traveling with the Secretary

World Geographic News

Challenging World

<http://www.fedstats.gov/kids.htm>;

Federal Government Kids Pages

<http://mapping.usgs.gov/www/html/1educate.html>

United States Geological Survey, Educational Resources for Cartography, Geography, and Related Disciplines

<http://magma.nationalgeographic.com/education/index.cfm>

National Geographic Society

Online Adventures

Maps & Geography

Lesson Plans

Teacher Community

<http://www.nytimes.com/learning/>

The New York Times On THE WEB

Learning Network, Grades 3-12

Student Connections

Teacher Connections

Parent Connections

<http://geography.about.com/education/geography/mbody.htm>

About.com – Matt Rosenberg

Cartography, Census Population, Cities and Urban Geography, Climate and Weather, Coordinates, Countries, Cultural Geography, Disaster/Hazard, Finding Places, Games, Geographic Education, GPS and GIS, Historic Maps, Large Cities, Maps, Outline Maps, Photos, Physical Geography, Rivers and Streams, Streets and Road Maps, Time and Time Zones, Topographic Maps, U.S. Map, U.S. Population, World Map, World Population, Zip Codes

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

Mercator's World Wide Web

"The Magazine of Maps, Exploration and Discovery"

<http://school.discovery.com/>

Discovery Channel School

<http://www.geo.appstate.edu/ncga/home.html>

North Carolina Geographic Alliance

Newsletter

Teaching Resources

Lesson Plans

Upcoming Events
