



## AIR—Here, There, Everywhere

### Chemists Celebrate Earth Day 2005 - eResources for K-12

Levels: *(E) Elementary (K-4), (I) Intermediate (6-8), HS High School (9-12), (C) College, and (G) General Public.*

#### Atmosphere

##### THE ATMOSPHERE - A DELICATE SITUATION *(I)*

This website introduces students to the fundamental principles of the earth's atmosphere: history, composition, and structure. Provided by: Rice University. URL: <http://teachertech.rice.edu/Participants/louviere/atmos.html>

##### CHEMISTRY NOW - CHEMISTRY OF THE ATMOSPHERE *(HS)*

Looks at how the earth's present atmosphere may have evolved from earlier atmospheres. Provided by: Royal Society of Chemistry. URL: <http://www.chemsoc.org/pdf/LearnNet/rsc/Atmos.pdf> (PDF)

##### ENCYCLOPEDIA OF THE ATMOSPHERIC ENVIRONMENT *(HS, C, G)*

This website is a one-stop source of information on a range of atmospheric issues. Provided by: Manchester Metropolitan University. URL: <http://www.doc.mmu.ac.uk/aric/eae/>

##### GLOBE PROGRAM *(E, I, HS)*

Global Learning and Observations to Benefit the Environment (GLOBE) is a worldwide network allows students, teachers, and scientists to work together to study and understand the global environment. URL: <http://www.globe.gov/>

##### IT'S A BREEZE *(I, HS)*

Learn how air pressure affects you. Provided by: National Aeronautics and Space Administration. URL: [http://kids.earth.nasa.gov/archive/air\\_pressure/index.html](http://kids.earth.nasa.gov/archive/air_pressure/index.html)

##### LEARN: ATMOSPHERIC SCIENCE EXPLORERS -- CYCLES OF THE EARTH AND ATMOSPHERE:

**A WEB SITE FOR TEACHERS *(I)*** LEARN was created to increase middle school science teacher knowledge of and interest in the atmospheric sciences. Provided by: University Corporation for Atmospheric Research. URL: <http://www.ucar.edu/learn/>

##### TODAY FROM SPACE: THE EARTH'S ATMOSPHERE: NEAR REAL-TIME RESEARCH IMAGERY

*(G)* Real-time geostationary satellite data is updated every 30 minutes. Provided by: U.S. National Space and Administration Agency. URL: [http://science.nasa.gov/newhome/essd/atmosphere\\_today.htm](http://science.nasa.gov/newhome/essd/atmosphere_today.htm)

#### Understanding Weather

##### GREAT WEB SITES FOR KIDS: WEATHER AND THE ENVIRONMENT *(E, I)*

Contains meaningful and useful content that educates, informs, or entertains. Provided by: American Library Assoc., and Assoc. for Library Service to Children. URL: <http://www.ala.org/ala/alsc/greatwebsites/greatwebsitesweather.htm>

##### INTELLICAST.COM: WEATHER FOR ACTIVE LIVES *(G)*

This website provides extensive weather information to help plan outdoor and weather sensitive activities. URL: <http://www.intellicast.com/>

##### NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION (NOAA) *(I, HS, C, G)*

NOAA conducts research and gathers data about the global oceans, atmosphere, space, and the sun. The National Weather Service is a part of NOAA. URL: <http://www.noaa.gov/>



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#### **ONE SKY MANY VOICES (*E, I, HS*)**

This site was designed to create innovative, inquiry-based K-12 weather curricula for the interactive study of current weather and air quality. Provided by: University of Michigan. URL: <http://onesky.engin.umich.edu/>

#### **THE ONLINE GUIDES: METEOROLOGY (*I, HS, C, G*)**

Modules use multimedia to introduce fundamental concepts in the atmospheric sciences. Provided by: University of Illinois at Urbana-Champaign. URL: [http://ww2010.atmos.uiuc.edu/\(Gh\)/guides/mtr/home.xml](http://ww2010.atmos.uiuc.edu/(Gh)/guides/mtr/home.xml)

#### **WEATHER WATCH HOME PAGE (*E, I*)**

Weather is wild with hurricanes, winter storms and tornadoes. Learn more about these events with their Weather Watch activities. Provided by: Scholastic, Inc. URL: <http://teacher.scholastic.com/activities/wwatch/index.htm>

**SPACE ENVIRONMENT CENTER: THE OFFICIAL SOURCE OF SPACE WEATHER ALERTS, WARNINGS AND FORECASTS. (*I, HS, C, G*)** Official government source for space weather. Provided by: U.S. National Oceanic and Atmospheric Administration. URL: <http://www.sec.noaa.gov/index.html>

## Climate

#### **ASK DOCTOR GLOBAL CHANGE (*HS, C, G*)**

Reference Service that helps users find information and data relevant to global environmental change. Provided by: US Global Change Research Info. Office. URL: <http://gcrio.custhelp.com/cgi-bin/gcrio.cfg/php/enduser/home.php>

#### **CLIMATE CHANGE PORTAL (*HS, C, G*)**

This portal is a central source for substantive work and information resources regarding climate change. Provided by: United Nations Environment Programme. URL: <http://climatechange.unep.net/>

#### **GLOBAL CHANGE MASTER DIRECTORY (*HS, C*)**

This directory provides descriptions of Earth science data sets and services relevant to global change research. Provided by: U.S. National Aeronautics and Space Administration. URL: <http://gcmd.gsfc.nasa.gov/>

#### **GLOBAL CLIMATE CHANGE > RESEARCH EXPLORER (*I, HS, C*)**

Contains scientific data related to the atmosphere and other parts of the biosphere. Provided by: The Exploratorium Museum. URL: <http://www.exploratorium.edu/climate/index.html>

#### **NASA'S EARTH OBSERVING SYSTEM (EOS) (*E, I, HS, C, G*)**

EOS is composed of a series of satellites, a science component, and a data system supporting a coordinated series of polar-orbiting and low inclination satellites for long-term global observations of the land surface, biosphere, solid Earth, atmosphere, and oceans. URL: <http://eosps0.gsfc.nasa.gov/index.php>

#### **NASA EARTH OBSERVATORY (*I, HS, C, G*)**

It provides web access to satellite imagery focusing on climate and environmental change. Contains an excellent glossary. Can view web pages with the glossary mode turned on or off. URL: <http://earthobservatory.nasa.gov/>

#### **NATIONAL CLIMATIC DATA CENTER (NCDC) (*I, HS, C, G*)**

The world's largest active archive of weather data, the NCDC is a national resource for climate information. As climate knows no boundaries, NCDC works closely with scientists and researchers worldwide. Provided by: U.S. National Oceanic and Atmospheric Administration. URL: <http://www.ncdc.noaa.gov/oa/ncdc.html>