

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

INFORMATION EXCHANGE FOR MARINE EDUCATORS

JANUARY 2010

This update is funded by the National Marine Sanctuaries Foundation in partnership with NOAA's Ocean Exploration and Research Program, with additional support from NOAA's Office of Education and the National Marine Protected Areas Center, to share information pertinent to the marine educator community. It is intended to encourage exchange of information and programs. We hope that it will also promote collaboration among the different educators addressing similar issues in their programs.

Please share this email with your colleagues and constituents. If you request materials or respond to a request for information, please mention that you learned about it from NOAA's Information Exchange.

The information included here has been compiled from many different sources, including EE-NEWS@NAAEE, EEinGEORGIA, CREEC, the Scout Report, edinfo at FREE, scuttlebutt, NSTA Express, and others. We have verified web addresses, but make no guarantee that they will remain active. The Department of Commerce/NOAA does not necessarily endorse or promote the views or facts presented on these sites.

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Collected archives of the information presented in past newsletters are available at http://mpa.gov/helpful_resources/education_training.html. Contact the editor directly at phyllis.dermer@noaa.gov, or by phone at (865) 932-5074, to discuss further enhancements or to contribute information for future issues.

Notable References

Inquiry into Climate Change and Environmental Impacts on Coastal Communities

This report by an Australian House of Representatives committee on climate change spells out policy options available to coastal communities in addressing sea level rise: protect, redesign, rebuild, elevate, relocate, or retreat. The report describes the uncertainties local planning councils will face in deciding which policy would apply best in each circumstance. Individual chapters may be downloaded for convenience.

<http://www.aph.gov.au/house/committee/ccwea/coastalzone/report.htm>

Protected Areas: Natural Solutions to Climate Change Crisis

The book, Natural Solutions: Protected Areas Helping People Cope with Climate Change, articulates how protected areas contribute significantly to reducing the impacts of climate change and what's needed for them to achieve even more. It is available for download from the website.

<http://www.iucn.org/?4329/Protected-areas--natural-solutions-to-climate-change-crisis>

The Psychology of Climate Change Communication

The Center for Research on Environmental Decisions at Columbia University offers the online Psychology of Climate Change Communication. The guide is available in its entirety on the website, by individual chapter or as the complete guide.

<http://cred.columbia.edu/guide/index.html>

GRANTS AND OPPORTUNITIES

Celebrate Urban Birds Mini-Grants

The Cornell Lab of Ornithology offers mini-grants to support the organization of community Celebrate Urban Birds events. The deadline for application is February 15, 2010.

<http://www.birds.cornell.edu/celebration/community/minigrants/mini-grants-2010/2010-mini-grants-1>

Christopher Columbus Awards

Innovation Generation offers the Christopher Columbus Awards, a national, community-based science and technology program for middle school students. The program challenges the students to work in teams of three to four, with an adult coach, to identify a problem in their community and apply the scientific method to create an innovative solution to that problem. The deadline for submission is February 8, 2010.

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

DASH+ Challenge

DASH+ challenges high school teams to use their creativity, science, technology, engineering, and math skills to design, describe, and pitch the next generation of automotive dashboards. As part of the Progressive Automotive X Prize Education Program funded by the U.S. Department of Energy, the DASH+ contest rewards the winning team whose eco-dashboard concept best incorporates feedback mechanisms and supports behavior change to help drivers maximize fuel efficiency and reduce environmental impact. The deadline for entry is February 1, 2010.

<http://fuelourfuturenow.com/contest/>

Disney Friends for Change Grants

Disney's Friends for Change Grants will fund kids' projects that help the environment and will look to engage children ages 5-18 as leaders in their communities. Grants are open to schools, organizations, and individuals planning service projects which inspire children to work with their families, friends, schools and communities to address critical needs in their local, national, and global communities. The deadline for entry is January 29, 2010.

<http://www.ysa.org/grants/announcements/friendsforchange>

DuPont Challenge

The DuPont Challenge[®] Science Essay Competition aims to inspire young people to excel in scientific writing. Students in grades 7-12 research and write an essay about a scientific discovery, theory, event, or technological application that has captured their interest. The deadline for submission is January 31, 2010.

<http://thechallenge.dupont.com/>

Garden Club of America Wetlands Scholarship

The Garden Club of America offers an annual award for a one-year scholarship for graduate studies in coastal wetlands and support of field-based research. The goals of the Garden Club are to promote wetlands conservation through the support of young scientists in their fieldwork and research. Applicants should be enrolled at a university within the United States. The deadline for application is February 1, 2010.

http://ccrm.vims.edu/education/garden_club/index.html

Google Earth Outreach Product Grants

Google Earth Outreach supports non-profit organizations that share the mission of community service in areas such as education and culture; environment and science; and more. Eligible non-profits can apply for a grant of Google Earth Pro, Google SketchUp Pro or Maps API Premier.

http://earth.google.com/outreach/program_details.html

Intel Schools of Distinction Program

The Intel Schools of Distinction Program to Honor Excellence in Math and Science Education honors U.S. schools that have demonstrated excellence in math and science education. There are awards for elementary, middle, and high schools in each of two categories - math and science. The deadline for application is February 17, 2010.

<http://www.intel.com/education/schoolsofdistinction/>

JASON National Argonaut Team

Apply to join the JASON National Argonaut Team to explore space, climate, and forces and motion. The JASON Project is seeking a diverse, creative, and adventurous group of students and teachers to venture into the field with JASON host researchers and video production crew to perform cutting edge science explorations. The Argonauts will embark on a two-year journey, starting in July 2010. The deadline for application is February 5, 2010. Free registration is required.

<http://www.jason.org/login.aspx?ReturnUrl=%2fgated%2ffeatures%2ffeaturesviewer.aspx%3ffid%3d200&fid=200&bhcp=1>

Laysan Albatross Art Contest

The Museum of Endangered Hawaiian and Ocean Animals invites artists of any age to create an image of a Laysan Albatross for its ocean gallery. The image may be in any media, but must depict some of the environmental problems facing albatross while at the same time sharing with museum visitors some aspects of the albatross's adaptations to open ocean life. In addition, each entry must include an original invention or ocean activity that may help the Laysan Albatross survive ocean pollution by plastic. The deadline for entry is January 15, 2010.

<http://www.hasta.us/wp-content/uploads/2009/12/fwd-art-and-science-contest.pdf>

NMEA Expanding Audience Stipend

A strategic goal of the National Marine Educators Association (NMEA) is to increase the number of members who represent and/or educate underrepresented minorities, including, but not limited to: people of color, indigenous people, island people, international communities, inland areas, and English-language learners. The NMEA Expanding Audience Stipend program will help recruit and assist qualified individuals to share their expertise, experiences, and perspectives through active participation in NMEA Annual Conferences and the creation of a product that will benefit the larger marine and aquatic education community. Any current NMEA member may use the form to nominate an

interested candidate for the stipend. Self-nominations are encouraged and welcome. Select Scholarships from the menu at the left of the website.

<http://www.nmeaweb.org/gatlinburg2010>

Ocean Leadership Award

As a reminder, the USC Wrigley Institute, QuikSCIENCE, and COSEE-West recognize educators who make outstanding contributions to K-12 ocean science education, through the Ocean Leadership Award. Nominations are accepted in different categories to help further marine science educational goals. The deadline for nominations is February 1, 2010.

<http://www.usc.edu/org/cosee-west/quikscience/OceanLeadershipAwards.html>

Our Planet, Our Stuff, Our Choice Video Competition

The EPA is sponsoring a video competition to raise awareness of the connection between the environment and the "stuff" people use, consume, recycle, and throw away.

Participants should make a 30 or 60 second video that reflects the theme of the competition—individual action in your community—by showing what they are doing to manage their stuff. The video should focus on one or more of the following areas: reducing/reusing; recycling; composting; and consumption and environmental footprint.

The deadline for entry is February 16, 2010.

<http://www.epa.gov/epawaste/wycd/video.htm>

QuikSCIENCE Music Challenge – Southern California

The QuikSCIENCE Music Challenge seeks young people in Southern California to compose ocean-inspired music for the QuikSCIENCE Challenge. Help promote ocean understanding and appreciation through music. There are prizes for each category of Best Song with Lyrics and Best Instrumental Piece. Remember - the deadline for entry is February 19, 2010.

http://www.usc.edu/org/cosee-west/quikscience/music_winners.html

RBC Water Stewardship Projects

The RBC Blue Water Project supports watershed cleanup/clean water projects in twelve states/communities: Alabama, Delaware, Florida, Georgia, Kentucky, Maryland, North Carolina, South Carolina, Tennessee, Virginia, Washington, D.C., and West Virginia. To apply for RBC Blue Water Project Funding, set up an account online at Donors Choose and submit project requests for tools and materials that will help your students learn about clean water and watersheds. Additional information can be found on the RBC website.

<http://www.donorschoose.org/homepage/main.html?zone=114>

<http://www.rbc.com/environment/bluewater/index.html>

Teach@15

The Best Buy Teach@15 Award program helps non-profit schools serving any grades 7-12 meet their technology needs. Teens (age 13-18) who are registered members can nominate their schools to win a Teach@15 Award. Teen members can vote for a nomination once per day. Every fifteen days, Best Buy will award three schools based on member votes.

http://www.at15.com/contests_scholarships/teach

Toyota Tapestry Grants for Science Teachers Program

As a reminder, Toyota Tapestry Grants are administered by NSTA and are available to middle and high school science teachers who teach at least two science classes a day and to elementary classroom teachers who teach at least some science in the classroom. The deadline for entry is January 18, 2010.

<http://www.nsta.org/pd/tapestry/>

Treasures of the Texas Coast Art Contest - Texas

The Texas General Land Office is calling on K-6 Texas students to participate in the 14th annual Adopt-A-Beach "Treasures of the Texas Coast" Children's Art Contest. Artwork should be based on the theme Treasures of the Texas Coast, and show why the Texas coast is special to the student. Artwork also must incorporate the official the Adopt-A-Beach slogan, Trashing Texas Beaches Isn't Cool. The deadline for submission is March 1, 2010. There will be forty winners.

<http://www.glo.state.tx.us/adopt-a-beach/artcontest.html>

Water Champion Awards

Water Champion awards recognize superior levels of relevance, educational effort, support, and innovation in the promotion of water quality via involvement in World Water Monitoring Day. The deadline for application is January 15, 2010.

<http://www.worldwatermonitoringday.org/Participate/Awards.html>

We are a Solution

State Farm Insurance Companies Foundation and the National Service-Learning Partnership are offering the contest, We Are A Solution: Youth Changing the World through Service-Learning Multimedia Showcase. Young people can express how they are transforming their communities, their schools, and their own lives through service-learning. The deadline for submission is January 22, 2010.

http://www.service-learningpartnership.org/site/PageServer?pagename=sl_contest_2010

WWMD Superlative Awards

Winners of a World Water Monitoring Day *Superlative Awards* will be chosen directly from data submitted to the database. These awards are meant to be fun and light-hearted. Winners of a Superlative Award will be notified in February 2010. Check out the award descriptions.

http://www.worldwatermonitoringday.org/Participate/WWMD_Superlatives.html

Young Naturalist Awards Competition

The American Museum of Natural History and Alcoa Foundation offer the Young Naturalist Awards, an inquiry-based research competition, inviting students in grades 7-12 to conduct research in the natural world. Students investigate questions they have in the areas of ecology, biology, Earth science, and astronomy and present their findings in an essay. The deadline for entry is March 1, 2010.

<http://www.amnh.org/nationalcenter/youngnaturalistawards/>

INTERNSHIPS AND TEMPORARY OPPORTUNITIES

Biscayne National Park BioBlitz

Biscayne National Park and National Geographic are teaming up for the 2010 BioBlitz, April 30-May 1, 2010 in Homestead, Florida. This event will connect students and the community with scientists in order to count species of every shape, color, and size in

Biscayne National Park. The event promotes science education, provides students with access to scientists, and celebrates biodiversity. Students, teachers, and all citizen scientists are welcome to join. Make sure to attend the Celebrate Biodiversity Festival immediately following the blitz.

<http://www.nps.gov/bisc/supportyourpark/bioblitz.htm>

MANTA High School Summer Course

MANTA (Marine Science And Nautical Training Academy) is a two-week summer course which provides students the opportunity to learn about the marine environment aboard a 45-foot catamaran sailing through the British Virgin Islands. MANTA's research scientists and instructors teach in a "flippers on" style, and the syllabus includes lectures and labs on aspects of marine science based on the Ocean Literacy principles and concepts, as well as active participation in publishable marine research.

<http://www.manta-online.org/>

Park Flight International Internships

The National Park Service Park Flight Migratory Bird Program works to protect shared migratory birds and their habitats in national parks and protected areas in the U.S., Canada, Latin America, and the Caribbean, through bird monitoring and education projects and opportunities for technical exchange and cooperation. For 2010, the Park Flight international internships will be open to candidates from Latin America (Mexico, Central and South America) and the Caribbean. The ten internships will begin from April to August 2010, and will last from two to six months. The deadline for application is January 31, 2010.

<http://www.nps.gov/oia/topics/flight/flight.htm>

Contact Mariamar Gutierrez at mariamargutierrez@hotmail.com

Sailing Expeditions for Students

Students in grades 5-12, along with their adult chaperones, can experience marine science and sailing on the waters of Puget Sound aboard the 61' *Carlyn* in expeditions during the Spring or Fall 2010. Students conduct original marine science research and learn to operate the vessel under the guidance of the Salish crew. Scholarship money is available for qualifying schools and students.

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

CONFERENCES, WORKSHOPS, AND PROFESSIONAL DEVELOPMENT

BioBlitz Teacher Workshop - Florida

Teachers of grades 5-12 and informal educators are invited to attend this teacher professional development, February 6-7, 2010 in Homestead, Florida. Participants will explore the park's biodiversity using a variety of tools and resources and will leave with activities to help students prepare for the BioBlitz event April 30-May 1, 2010. There is an optional field trip.

Contact Maria Beotegui at Maria_Beotegui@nps.gov

Call for Presentations to Film Makers for NAAEE Conference

NAAEE is offering film-makers a regular presentation timeslot at their annual conference, September 29-October 2, 2010 in Buffalo-Niagara, New York, with the opportunity to screen programs and obtain audience feedback. Programs with accompanying teaching materials are preferred; ten slots are available with a time limit of 105 minutes. The deadline for submission is February 1, 2010.

<http://www.naaee.org/conference/call-for-presentations/call-for-presentations>

DEN SCIcon 2010 - Online

DEN SCIcon 2010, January 9, 2010, is an online conference focused on providing participants with strategies for transforming their science classes through the integration of digital media content. Drop by for an hour or stay for the whole day; it's virtual and it's free.

<http://blog.discoveryeducation.com/scienceinaction/denscicon>

Environmental Communication for Behavior Change - Online

The Duke Environmental Leadership Program offers the online course, Environmental Communication for Behavior Change, January 26-March 7, 2010. The course provides environmental professionals with an introduction to the strategies and tools of environmental communication that effectively lead to changes in behavior. The environmental social marketing tools gained will benefit all practicing environmental professionals faced with the challenge of changing behaviors. The deadline for registration is January 5, 2010.

<http://www.nicholas.duke.edu/del/continuinged/envcommspg.10.html>

Estuaries to Oceans Teacher Workshop – North Carolina

The North Carolina Maritime Museum will host the Estuaries to Oceans: Conserve the Connection teacher workshop, February 15, 2010 in Beaufort, North Carolina. The free workshop is designed to create cross-curricular activities that merge natural and human influences with the estuarine environment. The workshop will offer hands-on inquiry activities, scientific data presentations from local researchers, and guided tours of the museum and estuary.

Contact Allison Besch at allison.besch@ncdcr.gov

Learning Ocean Science through Ocean Exploration - Various

NOAA's Ocean Exploration Program and partners will offer Learning Ocean Science through Ocean Exploration professional development workshops for science teachers. Participants will receive the curriculum with CD-ROM's, certificates of participation, and more. Contact the noted educator for registration and more information.

- April 10, 2010 with Hatfield Marine Science Center, Oregon, a follow-up workshop. The deadline for registration is March 29, 2010. Contact Tracy Crews attracy.crews@oregonstate.edu
- April 10, 2010 with John G. Shedd Aquarium, Chicago, Illinois, an introductory workshop. The deadline for registration is March 29, 2010. Contact Amy Christiansen at AChristian@sheddaquarium.org
- April 17, 2010 with National Aquarium in Baltimore, Maryland, an introductory workshop. The deadline for registration is April 2, 2010. Contact Joe Harber at jharber@aqua.org

<http://oceanexplorer.noaa.gov/edu/development/development.html>

NMEA10 From the Mountains to the Sea – Call for Presentations

The National Marine Educators Association (NMEA) Conference will be held July 19-23, 2010 in Gatlinburg, Tennessee. Select Call for Papers from the menu on the left of the website. The deadline for submission is February 26, 2010.

<http://www.nmeaweb.org/gatlinburg2010/>

Seacamp Marine Education Workshop - Florida

The Marine Education Workshop, February 12-15, 2010 from Big Pine Key, Florida, will offer the opportunity to study sub-tropical program sites within the Florida Keys National Marine Sanctuary. Study sites include soft and hard corals, mangrove islands, sponge and sea grass beds, and more. All educators, naturalists, and others (over 21 years of age) with an interest in the marine environment are invited.

<http://www.nhmi.org/PDF/NHMI2010TeacherWorkshop.pdf>

Toxic Blooms - Online

Woods Hole Oceanographic Institution offers this online seminar, Toxic Blooms: Understanding Red Tides, reviewing the basic biology and ecology of harmful algal blooms, the organisms responsible, what kinds of toxins they produce, and what possible measures can be taken to control them.

<http://www.fathom.com/course/10701012/index.html>

EDUCATIONAL RESOURCES

Antarctica's Climate Secrets

ANDRILL's (ANtarctic geological DRILLing) website offers a set of hands-on learning activities, video podcasts, and other materials for use in the classroom or with after-school groups. Groups can complete the learning activities in approximately ten sessions, and then use the materials and models to host a public science event. The learning activities feature physical models that illustrate geologic concepts, plus a range of maps and photographs of Antarctica. The video podcasts provide background information, and an activity book offers hands-on activities.

<http://www.andrill.org/flexhibit>

Beach Watch

Beach Watch trains citizen-scientists to survey and document the resources of the Gulf of the Farallones and Monterey Bay National Marine Sanctuaries. As a long-term volunteer beach monitoring program, the goals of Beach Watch are to help protect and understand coastal resources. The website offers sixteen years of biological data from 41 beaches, tracking live and dead wildlife and their locations. Verified information is presented as a tabular summary or graph upon searching on a specific beach or a particular species. The live bird and marine mammal data provides annual, seasonal, and geographical trends, as well as location data for threatened and endangered species. Free registration or identification is required to access the data.

<http://www.farallones.org/BeachData/BeachWatchData.php>

Cartography 2.0

Cartography 2.0, from the University of Wisconsin Madison's Department of Geography, offers a free knowledge base and e-textbook for students and professionals interested in interactive and animated maps. The website covers map animation, virtual globes, elements of design, and more.

<http://cartography2.org/>

Clean Air-Cool Planet

Clean Air-Cool Planet's goal is to solve the global warming problem through civic engagement, education, and effective policy. Check out the sections For Science Centers, For Campuses, and Get Informed for links to information and useful tools.

<http://www.cleanair-coolplanet.org/>

Climate Change Resources

Marine Ecosystems and Management, the bimonthly information service on marine ecosystem-based management from Marine Affairs Research and Education (MARE) in association with the University of Washington, has compiled a list of useful reports and websites on climate change. The reports include both general overviews and resources that focus on specific aspects such as sea level rise, ocean acidification, and more.

<http://depts.washington.edu/meam/climate.htm>

Create A Graph

The National Center for Education Statistics offers a Create-A-Graph section in their Kids Zone on the website. This tool helps users make different charts and graphs, with options for customizing each type. A tutorial explains which kind of graph is best for a particular situation.

<http://nces.ed.gov/nceskids/createAgraph/>

Enchanted Learning

Enchanted Learning[®] produces children's educational web sites which are designed to capture the imagination while maximizing creativity, learning, and enjoyment. Spend some time on this website and check out the dictionary, biology section, physical sciences, and much more.

<http://www.enchantedlearning.com/Home.html>

A Fish is a Fish

A Fish is a Fish, produced by Project FISH in partnership with Windsor Nature Discovery, is an activity for all ages that are learning to identify fish. The activity helps participants learn about the general characteristics of fish; acquire, analyze, and apply information; develop and use dichotomous keys; identify fish families; and apply this knowledge toward better fishing skills.

Contact Project FISH at steph143@msu.edu

Fish Population and Harvest Management Exercise

In this exercise, the students will be in charge of their own fishing fleet. The goal of the game is to educate students on how fragile a population of fish can be if harvested with little thought for long term use.

http://www.fws.gov/R5Crc/Salmon/workbook/fish_population_1.pdf

Global Warming: Understanding the Forecast

Global Warming: Understanding the Forecast is an introduction to global warming aimed at college-level non-science majors. The book examines the processes that control climate change and climate stability, from the distant past to the distant future. The website offers on-line interactive computer models which allow visitors to change the physics and chemistry behind the global warming forecast. Video lectures are posted on the website and are available for download to your computer for viewing.

<http://geoflop.uchicago.edu/forecast/docs/index.html>

ICRS 11 Proceedings

The International Coral Reef Symposium (ICRS) is held about every four years, and the proceedings have been made available online. The proceedings and contributions from ICRS 11 are now available on the website (search on 11 ICRS).

http://www.reefbase.org/resource_center/publication/icrs.aspx

Marine Spatial Planning Presentations

A symposium sponsored by NOAA's National Marine Sanctuaries examined how science, both natural and socioeconomic, has been applied to coastal and marine spatial planning. Presenters described cases from across the U.S. Fifteen presentations from the symposium are available online.

http://sanctuaries.noaa.gov/news/msp_symposium.html

NTEN Classroom Materials and Activities

Montana State University offers free Science Lesson Plans, Virtual Explorations of Contemporary Science Issues (including extremophiles and ecological footprints), Alternative Energy Interactives, and Multi-Cultural Classroom Activities.

<http://eu.montana.edu/nten/profres/>

Ocean Acidification

The December 2009 issue of *Oceanography* magazine is a special issue on ocean acidification. The open-access articles are posted online.

<http://tos.org/oceanography/issues/current.html>

Penguin Science Education Page

This website offers activities to help students learn about Adelie penguin life, history, and their relationship to climate change. Students can also send questions to the researchers who study penguins. There are PowerPoint presentations for use in your classroom about Antarctic Penguins, Antarctica, and global climate change; teaching notes are included.

http://www.penguinscience.com/classroom_home.php

Phytoplankton on the Web and in the Classroom

The online phytoplankton library from the Center for Integrated Marine Technologies was initially created to help provide information about the organisms behind the spring 2007 algal blooms in the Monterey Bay. It includes species found in the waters along California, Oregon, and Washington. The Central and Northern California Ocean Observing System created a classroom guide on phytoplankton and Harmful Algal Blooms, with a concentration on the West Coast and California species.

<http://cimt.ucsc.edu/habid/habhome.html>

http://www.cencoos.org/sections/classroom/algal_blooms.shtml

PolarTREC Learning Resources

PolarTREC (Teachers and Researchers Exploring Collaborating in the Arctic and Antarctic) is a program funded by the National Science Foundation in which K-12 teachers participate in polar research, working closely with scientists as a pathway to improving science education. PolarTREC Learning Resources is a collection of articles, lessons, activities, interactive media, and more for educators, students, or anyone interested in teaching or learning more about the science of the Arctic and Antarctica. Topics include Life Science, Environmental Studies, Polar Careers, and more. Visitors can also browse resources by type or use the search engine.

<http://www.polartrec.com/learning-resources>

Sea Level from Space

NASA's Jet Propulsion Laboratory offers the Ocean Surface Topography From Space website. Earth's oceans are the greatest influence on global climate. Only from space can we observe our vast oceans on a global scale and monitor critical changes in ocean

currents and heat storage. Continuous data from satellites like TOPEX/Poseidon and Jason help us understand and foresee the effects of the changing oceans on our climate. The website offers an education section with links to interactive exhibits, classroom activities, and much more. Other website features include news, mission information, a gallery, and more.

<http://sealevel.jpl.nasa.gov/index.html>

State of the World's Birds

BirdLife International offers the website and on-line database, State of the world's birds, which outlines why birds and biodiversity are important, examining what we know about the changing state of the world's birds, why birds are declining, and what can be done to improve their status.

<http://www.birdlife.org/sowb/>

StatWeb - A Guide to Basic Statistics for Biologists

StatWeb, designed at the University of Durham, is intended to enable students in the biological sciences to learn the basics of statistics. The examples used are largely from the environmental sciences and have built in multi-choice questions to assess understanding. The authors cover different topics within the disciplines of biology and mathematics and provide links to other useful websites.

<http://www.dur.ac.uk/stat.web/>

Understanding Plate Motions

This website, from the U.S. Geological Survey, provides an introduction to the motions of tectonic plates. Descriptions and examples of each of the four types of plate boundaries are presented along with illustrations of the motions associated with each.

<http://pubs.usgs.gov/gip/dynamic/understanding.html>

World Ocean Database

NOAA has released the World Ocean Database 2009, the largest, most comprehensive collection of scientific information about the oceans, with records dating as far back as 1800. The database provides approximately 9.1 million temperature profiles and 3.5 million salinity reports. The 2009 database also captures 29 categories of scientific information, including oxygen levels and chemical tracers, plus information on gases and isotopes that can be used to trace the movement of ocean currents.

<http://www.nodc.noaa.gov/OC5/indprod.html>

INITIATIVES, JOURNALS, and MORE

Australian Antarctic Magazine

The online version of the Australian Antarctic Magazine is part of an Australian government website that supports and informs the public, scientists, researchers, and lawmakers about the involvement of Australia in the Antarctic region. The magazine comes out twice yearly, and archived issues are available on the website. Sections of the magazine include Science and Policy, Marine Mammal Science, and Working in Antarctica.

<http://www.aad.gov.au/default.asp?casid=2006>

Be Out There

The National Wildlife Federation has launched Be Out There, a national movement to return the outdoors to the nation's children. Be Out There engages families, educators,

healthcare practitioners, corporate leaders, policymakers, and the media in persuading others to spend more time outdoors. The goal is to re-connect families to the outdoors to raise healthier kids and inspire a life-long appreciation of wildlife and nature.

<http://www.nwf.org/beoutthere/>

Computers for Learning

The U.S. General Services Administration sponsors the Computers for Learning website. The program evolved as a guide for implementing Executive Order 12999, Educational Technology: Ensuring Opportunity for all Children in the Next Century. The executive order encourages agencies to transfer unneeded computers and related peripheral equipment directly to schools and some educational nonprofit organizations. The program specifically matches the computer needs of schools and educational nonprofit organization with excess equipment in Federal agencies.

<http://computersforlearning.gov/>

Edutopia Top Staff Picks

In Edutopia: What Works in Public Education, Edutopia staff look back on 2009 and spotlight their favorite articles, videos, blogs, and discussions.

<http://www.edutopia.org/content-edutopia-staff-picks-2009#>

National Lab Day

National Lab Day is a nationwide initiative to build local communities of support (hubs) that will foster ongoing collaborations among volunteers, students, and educators. Volunteers (university students, scientists, engineers, other STEM professionals and members of the community) will work together with educators and students to improve labs and discovery-based science experiences for students in grades 6-12. In the first week of May, 2010 participants will celebrate this collaboration with National Lab Day activities across the country. At the website you sign up then submit your idea for a project (or what you need in your classroom) and the website matches your request with a local volunteer.

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

Photo of the Week

SeaWeb and the Marine Photobank offer a new feature on SeaWeb's site - Photo of the Week. Each week, a photo illustrating current ocean issues will be displayed on the SeaWeb home page, along with the story behind the photo on the Marine Photobank Photo of the Week page.

<http://www.marinephotobank.org/photocenter/photoofweek.php>

World Wildlife Fund PSA Campaign

The World Wildlife Fund has launched a new Public Service Announcement (PSA) campaign to help the public make the connections between issues such as climate change, overfishing, and scarcity of freshwater as covered in the news, and how these trends can affect their lives.

<http://www.worldwildlife.org/sites/videos/2009psas.html>