Online Resources Worth Checking Out

**CURRICULA (Hawai‘i)**

Ocean Learning Alliance Hawai‘i offers curriculum and information about public outreach activities plus opportunities for high schoolers, undergrads, teachers and volunteers. Go to: [http://www.soest.hawaii.edu/OLAHawaii/resourceslist.htm#K12](http://www.soest.hawaii.edu/OLAHawaii/resourceslist.htm#K12)

Pacific Center for Environmental Studies (PaCES) has great learning opportunities for students and teachers through O‘ahu’s Windward Community College, including hands-on classes and great curriculum. Go to: [http://windward.hawaii.edu/PACES/](http://windward.hawaii.edu/PACES/) Specifically look for:
- Stream Bioassessment with student handouts (looks harder than it is!): [http://hawaii.gov/health/environmental/env-planning/wqm/nrcsvaprotocol.pdf](http://hawaii.gov/health/environmental/env-planning/wqm/nrcsvaprotocol.pdf)
- Student work at He‘eia Stream (also high schoolers & teachers participate in summer) is at: [www.windward.hawaii.edu/PACES/summerfiles/pwrpnt/Soil.ppt](http://www.windward.hawaii.edu/PACES/summerfiles/pwrpnt/Soil.ppt)
- Soils Powerpoint automatic download to desktop (no webpage will open): [www.windward.hawaii.edu/PACES/summerfiles/pwrpnt/Soil.ppt](http://www.windward.hawaii.edu/PACES/summerfiles/pwrpnt/Soil.ppt)
- WCC Instructor, Dave Krupp, also has a homepage with lots of good links for teacher or student research and college prep, at: [http://krupp.wcc.hawaii.edu/](http://krupp.wcc.hawaii.edu/)

Malama I Ka ‘Āina is a culturally relevant professional development course offered to teachers wanting to teach sustainability through traditional Hawaiian practices. Participants’ activities and curricula are posted at: [http://malama.hawaii.edu/index.html](http://malama.hawaii.edu/index.html)

Malama ‘Aina Foundation includes 3 programs to teach science, math and Hawaiian culture through project based learning. Go to: [www.malamaaina.org](http://www.malamaaina.org)

Hawaii ‘i Networked Learning Communities is a virtual meeting place for parents, educators, students, and community members to meet and collaborate about educational issues, and includes lots of great units plus you can sign up for periodic emailed bulletins with great free workshop announcements, new free resources, etc. Go to: [www.hnlc.org/stories](http://www.hnlc.org/stories) & [www.hnlc.org/resources/resourcedatabase.php](http://www.hnlc.org/resources/resourcedatabase.php)

Hawai‘i Alive is a Bishop Museum project at: [www.hawaiialive.org/](http://www.hawaiialive.org/) which offers grade 9 standards-based curriculum materials (readings, images, online videos) that explore cultural collections through the ahupua‘a realms. Note:

**CURRICULA (Mainland)**

OceanLink Lesson Plans include: Introduction: The Words of Climate Change; Greenhouse Gases; Top Ten Things You Should Know; Threatened Arctic species "Arctic Heat"; The Value of Long Term Data; Acidic Oceans; Coral reefs, climate change, and the impacts on human populations; Intertidal Trouble; Climate Change in the Intertidal Zone - Experimental Design; NEPTUNE Canada Real Time Data; Changing Currents - Racing grapes,
grapefruits and eggs; Plankton in Peril - Changing Ocean Chemistry; Great Storms and Coastal Ecosystem Connections; Excess Methane - How Cheeseburgers Impact the Oceans; Sea Bird Adaptation and Survival; Modeling the Future; It's the Small Things that Count; and Going Carbon Neutral Go to: http://oceanlink.island.net/ or http://oceanlink.island.net/ONews/ONews7/lesson_plans.html


This site includes animations, primary documents, photos & videos in the following subjects:

**Science** (# of items)
- Applied Sciences (54)
  - Computers/Tech (14)
  - Engineering (22)
- Earth Sciences (43)
  - Climate Change (43)
  - Environment (67)
  - Geology (43)
  - Oceans (38)
- Other Earth Sciences (82)

**Life Sciences**
- Animals/Zoology (34)
- Botany (17)
- Diseases (28)
  - Genes, Evolution (39)
  - Human Body (22)
  - Interdependence (28)
  - Medicine (24)
  - Other Life Sciences (47)

**Physical Sciences**
- Chemistry (35)
- Energy (22)
- Physics (49)
- Other Physical Sciences (22)

**Space Sciences**
- Aeronautics (26)
- Astronomy (65)
- Other Space Sciences (31)

**Health & Phys Ed**
- Phys ed, exercise (7)
- Substance abuse (12)
- Other Health (63)

**Math**
- Algebra (24)
- Data Analysis (25)
- Geometry (17)
- Measurement (17)
- Number & Operations (15)
- Other Math (59)

**Arts & Music**
- Artists (92)
- Music (9)
- Visual arts
  - Architecture (23)
  - Other Arts & Music (32)

**Language Arts**
- Literature & Writers (25)
- Other Language Arts (25)

**U.S. History Topics, cont.**
- Movements
  - Civil Rights (44)
  - Immigration & Migration (28)
  - Transportation (29)
  - Women's History (38)
- States & Regions
- Wars
- Other History & Soc Studies
  - Anthropology (18)
  - Geography (32)
  - Natural Disasters (16)
  - Other Resources (83)

**U.S. Time Periods**
- 1607: Three Worlds Meet (24)
- 1607-1763: Colonization (25)
- 1763-1815: Revolution (77)
- 1801-1861: Expansion (87)
- 1850-1877: Civil War & Reconstruction (105)
- 1865-1920: Modern America (119)
- 1914-1945: World Wars (103)
- 1945-Present: Contemporary America (56)
- Other History & Social Studies:
  - U.S. History Time Periods (8)

**World Studies**
- Countries & Continents
  - Africa (31)
  - Arctic, Antarctica (13)
  - Other Countries & Continents (22)
- Foreign Languages (16)
- Other World Studies (23)
The No Boundaries Project, developed by NASA and USA TODAY Education, helps students explore careers in science, technology, engineering and math (STEM), while learning about NASA — the National Aeronautics and Space Administration. Includes a complete downloadable curriculum in the ‘Teacher’s Toolkit’. Go to: http://www.noboundaries-stemcareers.com

**VISUAL, DEMOS & HANDS ON RESOURCES (Hawai‘i)**

**School of Ocean and Earth Sciences Technology** at UH-Manoa on O‘ahu offers:
- an Open House every odd year. The next is Oct. 16-17, 2009 and student groups are welcome. Go to: http://www.soest.hawaii.edu/soest_web/soest.outreach.htm
- a Speakers Bureau to contact for guest faculty and university students (these are the best) to give talks to your students. See also the online “Ask an Earth Scientist” feature. Go to: http://www.soest.hawaii.edu/soest_web/soest.speakers.htm

**Space Grant Hawai‘i** at: www.spacegrant.hawaii.edu/ offers curriculum, teacher workshops and more, including:
- **Exploring Planets in the Classroom** with more than 25 hands on activities related to the Earth, the planets, geology, and space sciences. Go to: www.spacegrant.hawaii.edu/class acts/index.html
- **Robotics in Hawai‘i** includes Botball, LEGO™ League, Underwater ROV and Micro Robot Maze contests which occur annually to interest students in the integration of science, technology, engineering, and math with robotics. Go to: www.spacegrant.hawaii.edu/HI-robotics.html for more information.

**Kokua Hawai‘i Foundation** Go to: www.kokuahawaiifoundation.org/resources
This site has sustainability resources and ideas for teachers and students, plus environmental science field trip funds and $200 mini-grants for supplies and trainings.

**College of Tropical Agriculture & Human Resources (CTAHR at UH)** has lots of resources on multiple topics. Browse the tabs at the top of: www.ctahr.hawaii.edu/ctahr2001/
- **Hawai‘i Water Quality Resources** includes slide presentations and Internet sites by and for students on many current, local water quality and environmental studies. Go to: www2.ctahr.hawaii.edu/wq/resources/resources.htm

**Lacey Veach Day on O‘ahu** Get info and sign up for the yearly event for teachers, students and families at: www.spacegrant.hawaii.edu/Day-of-discovery/

**Hawai‘i Source Education Outreach (Maui Digital Bus)** loans digital microscopes, GPS/GIS, temperature and motion sensors and water quality kits. See “Programs” on their homepage – class visits are possible, plus teacher workshops. Go to: http://www.digitalbus.org/programs/lending_program.htm
Charles Edison Science Experiments has over 75 resources for middle school, but many can be easily adapted for more hands on high school use. Go to: http://www.charlesedisonfund.org/Experiments/experiments-list.html

Steve Spangler Science Demos can be viewed as a series of short clips on YouTube at: http://www.youtube.com/watch?v=ldmnDPX5o0A This will give you or students ideas for cool hands on and visual labs or demos. More free information about the science behind these activities is available at: www.stevespanglerscience.com (just click on the “Science Experiments” tab near the top and browse through 16 categories of topics to get to specific free experiments and online videos).

TeacherTube has thousands of online videos, documents, audio-casts, and photos related to all teaching subjects and all levels of education. The easiest way to search for what you want is by keyword at: www.teachertube.com or browse the Science Videos if you have time to spare at: http://www.teachertube.com/videoList.php?pg=videonew&cid=19

INFORMATION (Hawai‘i)

The Kuleana Green Business Program includes potential guest speakers at their annual conference and trade show (go to: ) plus a resources page (go to: www.kona-kohala.com/kuleana-resources.asp) with:

- Getting a Green MBA (for business minded students)
- Green Living
- Green Business Consulting (for future entrepreneurs)
- Corporate Social Responsibility Web sites
- General “Kuleana” links (business ethics, green business leaders, etc.)

The Hawai‘i Health Guide at: http://hawaiihealthguide.com/ is a great resource for statewide information (Health Guide & Health Talk News) plus if you click on your own island (see top) you will be taken to a page where you can get specific info as follows:

- Events Calendar (like the Healing Garden Festival on major Islands August through November 2009, etc.)
- Hawaiian Experience (with many science related links like Taro Farms, Botanical Gardens, Cultural Groups & Activities, Museums and information about local Parks, Marine Reports & Activities, and Weather)
- Health Food & Restaurants
- Fitness & Activities
- Healing Techniques (may lead you to good local guest speakers)
- Health Practitioners
- Hospitals, Doctors, Physicians
- Natural Products (may help you find supplies for interesting activities)
- Education & Spirituality (may have local classes for you & your students)
- Environment & Community (may connect you with local guest speakers)
- Green Business Directory
The Hawai‘i Green Pages is a resource for natural living and sustainability with a “Green Directory” for conscious consumers, an “Eco Feature” each month about an innovative business, and “Calendar of Events”. Go to: www.hawaiigreenpages.com

The Partners in Development Foundation in Hawai‘i has links to current projects serving Native Hawaiians. Go to: www.pidfoundation.org/ to see projects on: science & engineering mentoring; wetlands; Hawaiian health practices; technology; youth entrepreneurship; & malama ‘ina (sustainability)

The Honu Guide is a guide for sustainable living in Hawai‘i which can be purchased for local information or as a class fundraiser. Explore the “Look Inside” feature to see the kind of info included, and the “Fundraising” “Get Involved” and “Directory” tabs for other useful stuff. Go to: www.honугuide.com

(Australia)

The SARUA Project has valuable information about high school student participatory action research projects done with Queensland University of Technology in Brisbane, Australia. Resources include a manual for “Getting Started” (see tab under ‘School Projects” and past projects, many of which are related to culturally diverse students’ educational success and interventions to address inequities. Go to: http://sarua.ed.qut.edu.au/