

QUEST Partners' Informal Youth Science Education Programs

THE BAY INSTITUTE

Students and Teachers Restoring a Watershed (STRAW) (K-12) The Bay Institute's STRAW Project provides hands-on watershed and wetlands education and habitat restoration opportunities to about 2,000 K-12 students and teachers each school year. Since 1993, more than 14,000 students have participated in over 240 STRAW restorations on rural and urban creeks, planting over 25,000 native plants and restoring approximately 87,000 linear feet of creek banks. http://www.bay.org/watershed_education.htm

CALIFORNIA ACADEMY OF SCIENCES

The California Academy of Sciences is proud to offer a wide range of new hands-on investigations in our science lab facility. These labs are available to teachers who have signed up for a field trip and can be customized for various grade levels. Single-class lab sessions are available Monday-Thursday from 9:30am to 11:00am. To schedule your lab, call 415.379.8000.

Lab Offerings: Let's Talk Rocks—A Slice of California Geology ,Up Close and Personal—All About Microscopes, Alive and In Color—Plant Pigment Chromatography, Solar Circuitry—Let's Capture that Light!, Troubled Tree Frogs—A Week Without Water.

Careers in Science Intern Program is a multi-year, year-round, work-based youth development and science education program for youth (ages 14-20) from backgrounds typically under-represented in the sciences. Youth learn the basic concepts and complexities of science through formal lectures, teach science to different museum audiences, and conduct field and lab-based scientific research with Academy staff. For more information visit <http://www.calacademy.org/interns>.

Visit <http://www.calacademy.org/teachers> for additional information.

CHABOT SPACE & SCIENCE CENTER

The Galaxy Explorers' program provides teens with work experience, community service/volunteer opportunities and paid internships in a science center setting. Galaxy Explorers perform live public science demonstrations, explain interactive exhibits, deliver

mini science workshops, outreach to community centers and work in our ever-so-popular summer camps. Participants engage in fun, hands-on scientific activities and develop real-world skills. This program is targeted to high school students grades 9th-12th. For more information visit: www.galaxyexplorers.org

Techbridge is a multifaceted gender equity program that offers after-school and summer programs that offer hands-on projects, developed with girls in mind. The program develops girls' technical skills, confidence, and leadership and expose the girls to career resources that expand girls' options and may turn interest in science and technology into a life-long passion. This program is targeted to middle school and high school students grades 6th-12th. For more information visit: www.techbridgegirls.org

CRISSY FIELD CENTER

Kids-Only Club- Wilderness Survival Skills: Spend your Saturday learning how to survive in the great outdoors. Explore the relationship between the urban and natural world. Navigate the park using a compass and GPS units, identify medicinal plants, and search for animal tracks in the dirt. Dates: 11/8 and 11/22 9:30-200. Grades 3-6. Cost: \$45 per child per session.

Fantastic Friday: Crissy Field is a magical and safe place for toddlers to explore the outdoors with their five senses and to develop a lasting appreciation for living things. This program for toddlers and their parents, guardians, care givers is designed to help toddlers make early connections with their natural surroundings. Program themes change every week. Check our website for details. www.crissyfield.org Dates: 10/3-1/30 10:00-11:30. Ages 18 months-4 years. Cost \$15 per participating child.

Seasons Greenings: A do-it-yourself gift-making extravaganza. Make sure the holidays are happy for the planet by creating your very own one-of-a-kind gifts and cards from recycled materials. Date: 12/6. Cost Between \$1-\$3 per activity.

EAST BAY REGIONAL PARK DISTRICT

Outdoor Discoveries 3-5 years old with an adult. <http://www.ebparks.org> . Meets at Sunol Regional Wilderness Thursdays 10-11:30 am with some special evening programs and overnights. A fun-filled opportunity for preschoolers and parents to explore various seasonal wilderness and science themes together. (510) 544-3240 or for more information.

Science for Tykes 4-8 years old with an adult. <http://www.ebparks.org>. Meets Jan – October approximately 2 Saturdays/month. Exciting nature lessons for budding scientists and their parents in a wild outdoor laboratory. May include experiments, crafts, hikes, stories and hands-on learning opportunities. Meets at Sunol Regional Wilderness. (510) 544-3240 for more information.

Eco-Explorers (8-13 years) Adventurous children and their families who want a more intensive experience in the great outdoors are invited for this series which takes place at various East Bay parks. May include overnights, backpacking, kayaking, hiking, rock scrambling, biking, outdoor navigation, stargazing, wildlife monitoring. (510) 544-3240 for more information.

Wilderness Trekkers (5-11 years) Wilderness explorations for children who love natural history and hiking. Meets spring, summer and fall, usually after school. (510) 544-3240 for more information.

EXPLORATORIUM

School Field Trips The Exploratorium offers self-guided field trips for school groups to explore the Exploratorium exhibits. This program is open to all grade levels. <http://www.exploratorium.edu/visit/fieldtrips.html>

Family Investigation Workshops Families, join the Exploratorium for a series of hands-on explorations and learn skills you can use at home! Each intergenerational workshop will feature one of the activities from our award-winning Exploratopia publication, and will focus on practicing the Exploratopia "Tools for Exploration." These programs are open to adults with children ages 6 and up. <http://www.exploratorium.edu/membership/classes.html>

Summer Day Camp The Exploratorium summer camp programs offer free time in the museum, structured activity time, and outdoor exploration. Campers may participate in project building with friends, science experiments, art projects, and group games. These programs are open to children ages 5-14. <http://www.exploratorium.edu/membership/summercamp.html>

Explainer Program Explainers are students from the Bay Area and from around the world who come together to participate in a teaching and learning experience at the Exploratorium <http://www.exploratorium.edu/programs/explainer/>

GIRLS SCOUTS

Girls Go Tech 101 – Girl Scouts of Northern California Middle School Girls
<http://www.girlscoutsnorcal.org> Girls Go Tech 101 is a collaboration between the Techbridge program of the Chabot Space and Science Center and the Girls Go Tech initiative of the Girl Scouts of Northern California. Girl Scout staff deliver a weekly engineering curriculum developed by Techbridge to middle school girls from under resourced schools in San Francisco, Oakland and Richmond.

Launch into Technology – Girl Scouts of Northern California High School Girls
www.girlscoutsnorcal.org Launch into Technology is a week summer residential program for high school girls in collaboration in NASA Ames Research Center. Girls experience a specific topic for the week by choosing the Aeronautics Institute, Astrobiology Institute, or Robotics Institute.

Space Cookies – Girl Scouts of Northern California High School Girls
<http://www.spacecookies.org> The Space Cookies is a Girl Scout/NASA Ames FIRST Robotics Team comprised of girls from all over the San Francisco Bay Area who work together to learn about robots, compete in FIRST Robotics competitions, and mentor local Lego robotic teams.

In-School Science (ISS) – Girl Scouts of Northern California 2nd-6th graders
www.girlscoutsnorcal.org In-School Science is a 20-week science education program that builds critical thinking skills, fosters teamwork, and increases interest in science through hands-on experience. The program compliments the science curriculum in the classroom by aligning with California State Standards and supports low-income youth who are statistically under-represented in the fields of science and technology.

GLADSTONE INSTITUTES

National Student Leadership Conference (NSLC) Each summer Gladstone hosts the life sciences segment of the annual National Student Leadership conference in which high school juniors and seniors from around the country spend ½ day at Gladstone learning about science careers. More than 80 Gladstone staff are involved in the 3-day event putting on 3 lectures, 10 different demonstrations and a career panel. The NSLC also provides Gladstone with 21 scholarships which are awarded to San Francisco high school students who would not otherwise be able to participate in the conference. Applications are accepted during April. <http://www.gladstone.ucsf.edu/gladstone/site/gdlt/section/1747>

Summer Internships Local graduates of the NSLC are eligible to work alongside our researchers for 6 weeks each summer.

<http://www.gladstone.ucsf.edu/gladstone/site/gdlt/section/1747>

Take a Scientist to School Many Gladstone scientists volunteer to visit local middle and high schools to talk about their work and careers. Gladstone's young postdoctoral fellows enable students to see that all scientists don't look like Einstein and offer a discussion of the different types of career paths available in science. Email vtucker@gladstone.ucsf.edu.

LAWRENCE BERKELEY NATIONAL LABORATORY

Berkeley Lab Adventure Zone for Elementary Science (BLAZES) is a three-hour educational visit to Berkeley Lab for 5th graders from local elementary schools. During the visit, students participate in hands-on science activities about properties of matter, investigate the Periodic Table, interact with scientists, and learn about careers in science and engineering and technology. They also visit a laboratory to see powerful imaging instruments used in research and see a liquid nitrogen demonstration explaining concepts in earlier activities. Activities are aligned to the CA Science Standards. Programs are scheduled beginning in September each year with site visits scheduled on Tuesdays and Thursdays between October 1 and May 31. For more information, email BLAZES@lbl.gov.

Berkeley Lab Afterschool Science and Technology (BLAST) is a two-hour outreach program held after school at local middle schools. During the visit, students participate in science and technology hands-on activities, interact with a team of Berkeley Lab scientists and educators, and learn about careers in science, engineering and technology. Activities are aligned to the CA Science Standards. Programs are scheduled beginning in September each year with site visits scheduled for Tuesdays, Wednesdays and Thursdays between October 1 and May 31. For more information, email BLAST@lbl.gov.

Berkeley Lab Internships for Pre-collegiate Scholars (BLIPS) is a seven-week internship that provides high school juniors from the SF Bay Area with the opportunity to work with world class scientists or engineers on projects related to the Laboratory's research programs. Assignments cover a wide range of laboratory tasks and assistance in basic research. Students also meet regularly with fellow interns, attend science seminars given by Lab scientists, and give a final presentation summarizing their research. The internship runs from June 17 through August 7, 2009. Interns will receive a stipend of \$2,000. Applications are available online beginning December 1 and are due by January 31, 2009. For more information, email BLIPS@lbl.gov.

LAWRENCE HALL OF SCIENCE

Programs for Schools & Community Groups Serves ages: K-12 URL:

<http://www.lawrencehallofscience.com/pfs> The Lawrence Hall of Science offers a full range of outreach science learning programs that can be brought to your school or community group.

Afterschool Classes, Camps, & Family Workshops Serves ages 2 to 12 URL:

<http://www.lawrencehallofscience.com/classes> The Lawrence Hall of Science offers 4 or 8 session afterschool classes, week-long summer day camps, and one-time family workshops on weekends.

Programs for Teachers Serves: Teachers of students K-12 URL:

<http://www.lawrencehallofscience.com/pd> Every year, more than 22,000 teacher participate in professional development programs at the Lawrence Hall of Science.

Instructional materials developed by the Lawrence Hall of Science are in use in all 50 states, in over 20% of the country's elementary schools, and have been translated into 27 different languages.

THE OAKLAND ZOO

Conservation ZooMobile Single classes of upper elementary school children explore conservation issues in this two-hour "stations" program to be set up in a school library, multi-purpose room, or classroom. The program features: Live animals to illustrate aspects of the pet trade, Confiscated Animal Products on loan to us from the U.S. Fish & Wildlife Service to showcase the commercial trade in wildlife products, A Portable Rain Forest to explain biodiversity; interactive materials and biofacts describing threats to wildlife, and the 4 R's Station (Reduce, Reuse, Recycle, and Rot) to show children how they can actively help the environment. For more information go to <http://www.oaklandzoo.org/education-programs/zoomobile/conservation-zoomobile/> Or contact us at (510) 632-9525, ext 200.

Birthday Party at Oakland Zoo! Want to celebrate your child's special day in a unique and educational way? Bring them to the Zoo to celebrate! Begin your day with an interactive program led by one of our Education Specialists, featuring hands-on activities and animals. Gather your friends and family together for a themed program in our Discovery Room featuring an age appropriate story, live animal presentation and a fun animal enrichment craft. For more information go to <http://www.oaklandzoo.org/activities/birthdays/education-packages/> . Or, contact us at (510) 632-3525, ext 200.

Be a Teen Wild Guide! This program is designed for teen ages 13-18. Participants will train to be a wildlife interpreter for young visitors in the Wayne and Gladys Valley Children's Zoo, and participate in a variety of animal projects. Teen Wild Guides are young people interested in animals, plants, conservation and children. Teen Wild Guides are trained to be animal interpreters and conservation leaders. They are an important part of our zoo and our volunteer core, working with children, keepers and teachers. They are motivated, friendly and have a lot of fun! For more information go to <http://www.oaklandzoo.org/support-the-zoo/teen-volunteer-opportunities/teen-wild-guide/> Or, contact us at (510) 632-9525, ext 201.

THE TECH MUSEUM

Free Fieldtrip Program (2-12 Grades) Let the Tech Museum be your Second Class-room. Our hands-on interactive exhibits are tied to Science standards. All school groups are welcome to come visit the Tech Museum for FREE.
http://www.thetech.org/education/field_trips

Science Education Labs (2-12 Grades) Chemistry, Earth Science, Physics, Genetics and more. Most labs utilize Design Challenge Learning, an exciting, fun process that enables students to engage in an open-ended design process that results in an original solution. All of our labs align with California standards of learning.
http://www.thetech.org/education/field_trips/labs.php

The Annual Tech Challenge (5-12 Grades) Tech Challenge is The Tech Museum's annual educational event of the year. Students working small teams use creativity, problem solving, team work and technology to solve real-world problems. And have FUN!
<http://techchallenge.thetech.org>

UC BERKELEY NATURAL HISTORY MUSEUMS

UC Botanical Garden Tours: Group tours are provided by the Docents of the UC Botanical Garden and target different grade spans with K-12. The tours match the California State Education Standards and teacher materials are also available.
<http://botanicalgarden.berkeley.edu/education/educationTours.shtml>

UC Museum of Paleontology Docent-led Tours: Guided tours, accompanied by a graduate student docent, are available for school and youth groups. Tours are most

appropriate for students at the second grade level or higher. Group tours are scheduled depending upon availability of the docents. Maximum number of students per group is 25.
<http://www.ucmp.berkeley.edu/about/docent.php>

Phoebe Hearst Museum of Anthropology Docent Tours and Teaching Kits: Docent-led tours are approximately one hour long and reinforce the California State Content Standards in Social Studies, Visual Arts and Language Arts. The Museum currently has five teaching kits available for loan to schools, which include an illustrated teaching guide; reproductions of objects, audio cassettes, and other teaching resources.
<http://hearstmuseum.berkeley.edu/outreach/schoolvisits.html>

U.S. GEOLOGICAL SURVEY

U.S. Geological Survey School Tours: Recommended for grades 2-12 and beyond. The USGS in Menlo Park offers free school tours and group tours on Tuesdays and Thursdays by appointment only. Tours are arranged for groups of 10 or more with a limit of 30 people. Larger classes or groups can be broken down into manageable sizes. Visitors will spend 1.5-2 hours learning about earthquake hazards, topographic mapping, library services, and many other interesting science topics. Please contact Diane Garcia at dgarcia@usgs.gov or 650-329-4382 to set up a tour. [After May 2009, contact Christy Ryan at clryan@usgs.gov or 650-329-4356.]