

LIFE LAB Science Program

www.lifelab.org

*Life Lab Science Program
is committed to
environmental stewardship
by promoting science and
garden-based education for
all learners.*



Monterey Bay Science
Project/LASERS

The Garden Classroom

Resource Conservation
Program

THE GARDEN TIMES

Spring ~ Summer 2003

Managing an Effective Outdoor Classroom

"I would love to take my students out to the school garden more often, but I'm not sure how to manage that many kids."

— *Teacher in a Life Lab workshop*

The idea of conducting serious academic work with a class of 28 students in an outdoor setting can be daunting for some teachers and administrators. In many schools, students go outdoors for two primary purposes, recess and physical education. Their concept of the great outdoors during school hours is as a place to play, run, yell and otherwise "blow off steam." The outdoors can be endlessly distracting—other classes at recess, balls flying and traffic noises—keeping students from focussing on the lesson at hand.

How can educators channel the high spirits and energy of their students into focussed study of the natural world? Here are some strategies that have worked for Life Lab teachers.

- Establish clear rules of behavior for outdoor work, just as you would for the indoor classroom. When students are part of the process of establishing these rules, they are more likely to uphold them. Post the rules for easy referral. Working outdoors is generally viewed as a privilege by students. Reward their good behavior with more time outdoors when possible.
- Train students in cooperative learning techniques in the classroom, before you go outdoors. Life Lab's activity guide *The Growing Classroom* contains many such activities in the unit titled *Let's Work Together: Problem Solving and Communication*.
- Whenever possible, work with smaller groups in the garden classroom or other outdoor setting. Bring in parent volunteers to help out once a week, or contact your local Master Gardeners group. While the volunteer helps manage a gardening activity such as weeding or watering, the classroom teacher can present the academic lesson. Other sources of volunteers include local university or college internship programs, cross-age tutoring programs, or senior centers.
- Set up stations so that students can rotate through different activities. Here is a sample schedule of twenty minute blocks.

Station 1) Students work independently, writing in their field journals. They make note of temperature, weather conditions, and natural history observations.

Station 2) Students work with the teacher on a plant dissection activity.

Station 3) Students work independently on a math activity, measuring and answering questions about plant growth on a worksheet.

- Coordinate with other teachers at your grade level to help each other get more small group time outdoors. For example, if the teacher next door takes half your class for P.E. twice a week, you can take the smaller group to the garden.

Visit www.lifelab.org for more on managing the active science class.



**INSIDE... BOOK REVIEW • SUMMER VACATION PLANS FOR YOUR
GARDEN • GRANT IDEAS • POETRY CONTEST • KID'S CORNER
EVENTS CALENDAR**

BECOME A FRIEND OF LIFE LAB

By becoming a Friend of the Life Lab Science Program you help support our community events and education programs. Life Lab Science Program is a non-profit organization and your donation is tax deductible.

- \$20 Student/ Limited Income**
biannual newsletter & Life Lab window decal
- \$30 Individual**
biannual newsletter & Life Lab window decal
- \$50 Family**
all the above plus a 10% discount on Life Lab merchandise
- \$100 Ladybug**
all of the above plus a choice of Life Lab t-shirt or hat
- \$250 Honey Bee**
all of the above plus Life Lab t-shirt and hat
- \$500 Hummingbird**
all of the above plus recognition in the Life Lab newsletter
- \$1,000 Red Tail Hawk**
all of the above plus recognition in the Garden Classroom
- \$50,000 Chief Chicken**
all of the above plus we will love you forever!

Name _____

Address _____

City _____ St _____ Zip _____

Email _____

Mail to: Life Lab Science Program



1156 High St
Santa Cruz, CA 95064

For more information go to:

www.lifelab.org



SUMMER VACATION FOR YOUR GARDEN

Here are some ideas to keep your garden maintained during the summer so that in the fall your garden will be full of treats to harvest instead of weeds.

Garden Guardians Have families sign up to “adopt” the garden for a week or two during the summer. Leave simple directions on where to water and weed and encourage your garden guardians to harvest the veggies and flowers that are ready for picking. This will not only serve as a simple thank you, but will encourage your plants to keep producing fruit and flowers. Ideally you’d want the whole summer schedule made up with phone numbers of the weekly caretakers so that they can find substitutes if summer plans change.

Weed Now Not Later It is important to make sure that weeds are under control before the garden takes its summer break. The smallest of weeds in June will be big seed dispensing monsters come mid summer. Make sure you get rid of all the visible weeds before your break so they don’t haunt you in fall with their massive tap roots and seed heads.

Use Mulches Mulching for weed suppression and water conservation are both great strategies that are well worth the extra work. Covering your garden paths with 3 inches of wood chips will help smother out potential weed seeds and keep them from sprouting. Many tree services will donate chipped trees and many municipal landfills now have green cycle programs that give away wood chips. Mulching your garden beds and fruit trees with straw will keep weeds at bay and will conserve water by shading the soil.

Auto-Water Installing a drip irrigation system and auto timer can ease the stress of abandoning your garden by knowing that your plants are getting the water they need. Equipment for irrigating a small school garden with an automatic timer can cost less than a hundred dollars at your local garden center. Many of the simple kits come with instructions on how to set them up or you can bring a drawing of your garden and have staff help you get what you need. Visit the Garden Classroom to see various types of timers and drip systems in action.

Plant for Fall If you are serious about harvesting vegetables in the fall, pick long season vegetable varieties. Read the “days till harvest” listing on the back of seed packages and plan accordingly. If you want to eat fresh corn in September with your students, plant 90-100 day corn in late May instead of 65 day corn. Also remember that many vegetables need to be harvested to keep producing throughout the summer so make sure your garden guardians harvest regularly to encourage continual fruiting.

LIFE LAB SCIENCE PROGRAM IS A NOT-FOR-PROFIT 501(C) ORGANIZATION.

THANK YOU CURRENT SUPPORTERS!

The David and Lucile Packard Foundation • The Richard and Rhoda Goldman Fund • UCSC Center for Agroecology and Sustainable Food Systems • Santa Cruz County Board of Supervisors • Walter S. Johnson Foundation • The Clarence E. Heller Charitable Foundation • The S. H. Cowell Foundation • California Science Project • The CPEC Eisenhower Professional Development State Grant Program • California Professional Development Institutes Program • True North Foundation • Earthbound Farms • New Leaf Community Markets • Agri-Culture • Chez Panisse Foundation • and our growing membership.

BOOK REVIEW

PICK, PULL, SNAP! WHERE ONCE A FLOWER BLOOMED

By *Lola M. Schaefer*, Illustrated by
Lindsay Barret George
Greenwillow Press, 2003, Ages 4-8

Open this delightful new book and be transported to a child's garden where plants are viewed up close.



Beautiful paintings illustrate how six different species change from flower to fruit. The pages open up to reveal the inner workings of peas, apples, peanuts, raspberries, corn, peaches and pumpkins, including details on pollination, seed formation and harvesting. This book would be a great addition to a lesson on plant pollination, especially if you read it aloud while sitting under a blooming apple tree, in a raspberry patch or among the fall pumpkins.



Food for Thought Art & Poetry Contest

California students are invited to submit their work to the first annual Food for Thought Art and Poetry contest. Submissions should be on the general subject of FOOD. Growing, eating, and sharing food, and culinary and agricultural traditions are all good themes.

Winners will be selected in each of three grade level categories (K-5, 6-8, and 9-12) in both art and poetry and will receive a \$100 gift certificate to an art supply or book store. Winning submissions will be displayed and prizes will be awarded at the 2nd Annual AgriCultural Roots Fair at the Oakland Museum of California on September 13, 2003. Entries must be postmarked on or before August 1, 2003 and received by August 7, 2003.

Completed entry forms and your art or poetry should be sent to: Food for Thought, c/o River of Words, P.O. Box 4000-J, Berkeley, CA 94703 - 510-548-7636. Please refer to the "Rules and Guidelines" at www.riverofwords.org for complete contest rules.

Sponsored by SAGE (Sustainable Agriculture Education), info@sagecenter.org, in conjunction with River of Words.

GARDEN GRANTS

NGA Youth Garden Grant

The National Gardening Association awards tools, seeds, garden products, and educational materials to 400 schools, and youth organizations. www.kidsgardening.com/grants.asp

Captain Planet Foundation Grants

Provides from \$250 to \$2,500 to school and community groups. www.captainplanetfdn.org

CA Fertilizer Foundation School Garden Grant

Grants for \$1000 each to schools throughout California. www.calfertilizer.org/grant.htm

Toshiba America Foundation

Contributes to the quality of science and mathematics education in the U.S. 212/596-0667 www.toshiba.com/taf/

The Western Growers Association's Charitable Foundation

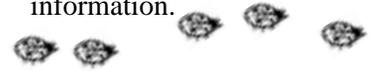
Awards grants of up to \$2000 to establish and support school gardens as well as provide resources such as irrigation and seeds. www.wga.com

We take credit....

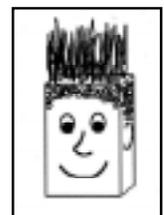
Take a look at our website and see what your plastic can buy now:

- ✓ K-5 Garden-Based Science Curricula
- ✓ Garden Based Activity Guides, CD's, and Calendars
- ✓ School and Classroom Resource Conservation Materials
- ✓ Payment for Tours, Camp and Community Events
- ✓ Life Lab T-Shirts and Caps

Visit www.lifelab.org for more information.



KID'S



CORNER

Wheat Heads

1. Cut a milk carton in half and punch a couple of drainage holes in the bottom of it.
2. Fill with soil, plant wheat berries (seed) and water. You can find wheat berries in the bulk section of natural food grocery stores.
3. Cut a strip of paper large enough to wrap around the carton.
4. Draw a face on paper with colored pencils or crayons (ink pens run if they get wet).
5. Water every few days and watch your head grow hair!

For a great experiment, plant two and place one in the sun and one in the shade. Do they germinate at the same speed? Do they look the same? Do they grow at the same rates?

RESERVATIONS ARE REQUIRED FOR ALL LIFE LAB WORKSHOPS AND CLASSES. RESERVE YOUR SPACE BY CALLING (831) 459-2001

Summer Day Camps – June 23 - August 8

Wildlands and Watering Cans Day Camp for 7 - 10 years olds runs from 9 am - 4 pm each day. Millipedes and Microscopes: A Science Exploration for 11-13 year olds is from 9 am - 1 pm.

SUMMER FARE in the Garden Classroom – June 28

The Watsonville Taiko Drummers will entertain you while you sample fantastic local farm fare, make and bake your own mini pizza, and enjoy our food festival. Fun for the whole family. 2:00 pm - 5:00 pm, \$5, 12 and under free. No RSVP needed.

NEW LEAF Community Cooking Series – July 25

This is a new family event series highlighting cooking in the Garden Kitchen featuring local chefs and farm fresh food. Parents will learn garden fresh cooking skills with a local chef while children learn about farm food and explore the garden. Families will share the meal they prepare together in the garden. 5:30 pm - 8:00 pm, \$25 adult, \$10 child.

Bringing Learning to the Garden – August 13

Teachers and garden educators will learn to connect the garden to school curricula, design effective learning gardens and receive strategies for garden instruction in a one day workshop. 9:00 am - 3:00 pm, \$60

Members Thank You! Tea in the Garden – August 16

Friends of the Life Lab Science Program are invited to enjoy garden activities and a farm fresh brunch for the family. 10:00 am - 12:00pm, Free to Friends of Life Lab.

NEW LEAF Brunch in the Garden – August 24

A New Leaf Community Cooking Series Event in the Life Lab Garden Classroom. Come learn to make a garden fresh breakfast with a local chef. Adults will learn baking and breakfast cooking tips while children explore the garden classroom and make a treat of their own. The morning will conclude with families sharing the meal they created in the garden. 10:00 am - 12:30 pm, \$25 adult, \$10 child.

Fall Field Trips

Sign up now to reserve a space for your 2nd through Middle grade class to participate in the *Farm-to-Fork* Field Trip on the UCSC Farm and the Garden Classroom or have us come to your class for *Field-to-Market-to-You: A Grocery Store*

Bees and Pollinators – September 13

During this class children will harvest honey from a hive, explore our observational bee hive and make a beeswax craft. This class runs concurrently with the UCSC Farm and Garden Fall Plant Sale. Drop your kids off while you shop for plants. 10:00 am - 12:00 pm, \$15, \$10 members

The Garden Classroom Benefit Dinner – September 20

Supporting the Garden Classroom never tasted this good! Join New Leaf and other sponsors of the Life Lab Science Program for an organic farm fresh dinner. Guests will be treated to a sunset walk of the UCSC Farm after dinner. Enjoy dinner in the beautiful Garden Classroom overlooking the Monterey Bay. 5 pm - 7:30 pm, \$100.

Harvest Festival – October 11

You don't want to miss the UCSC farm's annual celebration. Great music, food, apple tasting, an apple pie bake-off, hay rides, garden talks, kids' events, tours, displays by local farmers, and an all around good time. 11:00 am - 5:00 pm, \$5, kids 12 and under free. No RSVP needed

Pumpkins in the Kitchen – October 25

Children will create edible pumpkin treats in the Life Lab Garden Kitchen as well as carve a jack-o-lantern to bring home. 2:00pm - 5:00 pm, \$15, \$10 members.

Life Lab Science Program

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Phone: (831) 459-2001
www.lifelab.org

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WATCH LEARNING
COME TO LIFE
IN THE GARDEN!