



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



This newsletter is dedicated to the memory of Sharon Erspamer (1954-2004). Sharon designed the beautiful Garden Classroom interpretive panels and was a great friend to Life Lab. Sharon's work continues to inspire people to know and care for the natural world.

THE GARDEN TIMES

Watch learning come to life in the garden!

Fall-Winter 2005

A GARDEN FULL OF STEWARDS

How can we teach children to become stewards or guardians of the world around them? Children are more likely to care for places or things that they feel connected to and understand. The garden provides a place to learn intimately about the goings on of living organisms such as sweet peas and caterpillars, moles and microbes, zucchinis and songbirds. It also provides children with a close up view into natural cycles such as decomposition, weather, seasonal change, and soil creation. For many children, garden time is the rare part of the day when they step into a place that is real and alive, away from asphalt, plastic or commercials. In the garden children can make things happen that have a positive impact on their world.



Feeding the worm bin.

Around the world children are using gardens to create habitat for wildlife. They plant cabbages for caterpillars to munch, and flowers to provide nectar sources for butterflies. Some students put out bird baths and provide feeders, perches and nesting houses for birds. They create ponds where frogs can find refuge and herons can feed. As they observe these creatures in the habitats they have created, they gain a sense of their own ability to help keep the balance. Other students are using their gardens to help feed needy people. In programs such as *Plant a Row for the Hungry* schools connect with local food banks and bring them the harvest of a designated area of the garden. This harvest brings nutritious food to people with limited access to fresh fruits and vegetables. In this way, children learn that stewardship includes more than just the environment, but the people in it as well.

In schools throughout Santa Cruz County K-12 students are learning to recycle food and garden scraps through the Waste Free Schools program, a partnership between Life Lab, the County of Santa Cruz, the County Office of Education and Ecology Action of Santa Cruz. Classrooms feed lunch leftovers to worms, compost piles (and even a local pig), and the program has spawned many special projects such as "low waste lunch month," composting trainings for parents, skits on ecology and student-made films on waste reduction. Thus far, students and teachers in the program have diverted over 4,318 tons of waste from local landfills!

In each of these examples, children are participating in something that is bigger than themselves, their class or their school. They are contributing to the future, and finding hope that they can make it better. Isn't this what learning should be about?



INSIDE... RECIPE • RE-USE IN THE GARDEN • RECYCLED READING • BENEFIT DINNER WRAP-UP • LIFE LAB EVENTS CALENDAR

One Pot Winter Soup

8 cups vegetable broth
2 cups uncooked pasta
8 cups winter vegetables
1 medium onion, chopped
3 cloves of garlic, minced
1 Tbsp. olive oil
1 1/2 tsp. dried thyme
salt and pepper to taste

1. In a big soup pot saute the chopped onion in olive oil over medium heat, until clear.
2. Add the broth and boil.
3. Add pasta & bring back to a boil.

4. Add chopped garlic and longer cooking vegetables such as winter squash*, kale, chard stems, carrots, kohlrabi, beets. Bring to low boil for about 5 minutes.

6. After five minutes pass add quick cooking vegetables such as beet greens, chard leaves, broccoli, and celery. Bring to low boil.

7. In a few minutes test a noodle and a few veggies. Careful not to overcook the soup!

8. If you are using spinach, wash and prepare it ahead of time and add it all at once about a minute before the soup is done, to avoid overcooking it.

9. Serve with grated parmesan and good bread for a cozy winter meal!

*cut winter squash in small cubes (1/2" or 3/4") to cook quickly, or add pre cooked squash near the end.

BEE CAREFUL

Imidacloprid is an insecticide sold under the names as Guacho, Admire, Provado, and others. It has been linked to mass honey bee deaths. When purchasing landscaping plants, ask your nursery if they have been treated with chemicals known to effect honey bees or other pollinators. If possible, purchase organically grown plants for your gardens.

What a Wonderful Party! Life Lab's Benefit Dinner

On August 27th, Life Lab invited friends and supporters to a big party in the Garden Classroom to celebrate our ongoing programs and raise funds towards future work. Event sponsors



included the National Gardening Association, the Terrassist Foundation, Greater Bay Bancorp, and New Leaf Community Markets. Seventy-five guests sipped premium local wines from the Cooper Garrod Estate Vineyards and dined on a fabulous Mediterranean meal created by Chef Jon Dickinson of Café Cruz. The Ben Cole Quartet played jazz music, inspiring bidding on a silent auction of gifts, getaways and fine art. We dedicated the New Leaf Kitchen Garden to our supporters at New Leaf Community Markets, who have supported community education programs about nutrition, sustainable agriculture and food systems. Everyone enjoyed the beauty of the late summer garden, surrounded by sunflowers and butterflies. A big thanks to all our volunteers and contributors!

Chef Jon Dickinson of Cafe Cruz prepares garlic mashed potatoes

Save the date for next year's event: A Taste of Summer: Life Lab's Annual Benefit – September 16.

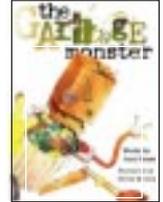
'RECYCLED' READING

Here are a few of our favorite children's books that encourage stewardship through reducing, reusing and recycling:

The Garbage Monster

Joni Sensel, Dream Factory Books, Enumclaw, WA 2000.

Here's a rhyming book about a garbage monster that diminishes bit by bit with the help of a girl who sees the treasures in the trash. As the girl takes away the useful paper, recycling, composting and reusable items, the monster dwindles to a small, non-threatening pile of trash that fits back in the can. This is a fun book for young children, and an encouragement to reduce, reuse, recycle, and take the garbage out before it turns into a monster.



The Kids Can Press Jumbo Book of Music

Deborah Dunleavy, Kids Can Press, Towanda, NY 2001.

This book is full of unusual and creative musical instruments made from reusing every day stuff. Projects range from those that require adult help, to instruments young children can make on their own, to more intricate designs for teens. Instructions and tips for how to play the instruments and songs are included.



Compost By Gosh!

Michelle Eva Portman, Flower Press, Kalamazoo, MI 2003.

Another rhyming book, this one is about a girl starting a worm composting bin. Lo and behold, all that leftover food cycles through the worms and turns into black gold, fortifying her plants. At the back are instructions on how to start your own worm compost pile.



RE-USE IN THE GARDEN

Here are a few simple ways to create functional garden implements from found, instead of purchased, objects.

Bottle Cap Foot Mat

(great for scraping garden mud)

Materials:

2 Pieces of 2 x 8 x 24 inch lumber

2 Pieces of 2 x 8 x 16 inch lumber

1 1/2 inch deck screws

2 1/2 inch deck screws

Drill gun

Bag of used bottle caps (easily acquired from a pub or bar)



Place the two 24 inch pieces of lumber side by side to make a 16 x 24 inch rectangle. Screw the 16 inch pieces of lumber near the edge of the 16 x 24 inch rectangle that you formed to join the two 24 inch pieces together. These will be the "feet" of your mat. Flip board over on to the "feet" and screw the bottle caps open sided up on the mat. Make sure the caps are aligned side by side. Alternatively you can fasten the caps to the board using a countersinking awl and nails.

Bamboo Watering Can Holder

Materials:

Large dried stalk of bamboo at least 8

feet tall with branches still on it

Pruning Shears

Hand Saw



Trim off leaves. Trim the thickest lateral branches to about 15 inches from the main branch and remove smaller lateral branches. Set the main branch in the ground about 2 feet deep. Slip the opening of your watering can on the lateral branches. Make sure to hang your cans upside down so that water won't collect in them. Try using smaller branched structures to dry re-usable plastic bags and to hang plastic beverage pitchers.

Seed Sowing Boats & Paper Pots

Materials:

Half gallon milk carton cut lengthwise

Newspaper cut in to 3 inch by 15 inch strips

Narrow glass jelly jars or mini aluminum cans

Sowing mix and seeds



Wrap the newspaper strips around the small jar or can with 1 1/2 inches hanging over the bottom. Twist off the bottom of the paper and smash it to the bottom of the can or jar to make a bottom to the paper pot. Fill with soil and plant seeds. Fill the "seed boat" with four paper pots so that they can support each other. Make sure to poke holes in the bottom of the boat for drainage. You can transplant the whole paper pot into the garden once the seedling is ready. The newspaper will decompose in the ground. Alternatively you can buy a paper pot maker at www.kidsgardening.com

JUNK DOLLS



Motivate your students to empty the junk drawer, search under the couch cushions and clean out the car. Start with a pile of junk: bottle caps, lint, a marker top, broken toy parts –whatever you find–and end up with an adorable little sculpture. In addition to junk, you'll need glue (a hot glue gun works best, but you can experiment with other glues, self-adhesive magnets, duct tape or screws and nails). Once you've gathered your materials, pick out some body parts, and arrange the pieces until you have a face or body you like. Start putting it together with glue, or any way you can. You can use acrylic paints to add finishing touches. Your Junk Doll is complete, and will remind you to think twice before you throw anything away.

Adapted from *Earth-Friendly Crafts for Kids: 50 Awesome Things to Make with Recycled Stuff*. Heather Smith with Joe Rhatigan, Lark Books, NY, NY 2002

All programs take place at the Life Lab Garden Classroom unless otherwise noted.

Community and School Programs

Field to Market to You — September - June

This two-part field trip program highlights food systems education and local agricultural history. Classroom visit followed by New Leaf Store field trip. Free. Call Katie at 466-9060 ext. 126

Garden Classroom Science Exploration Field Trips

Begin in April, Tuesday - Friday, 10:00-1:00, 2nd Grade - Middle School

Seeds of Wonder Field Trips for Pre-school - Kinder

Begin in April, Mondays, 9:00 and 11:00

Spring Break Gardening Day Camp — April 10 - 14

9:00 - 1:00

Wildlands and Watering Cans Summer Day Camp for 7-10 Year Olds — June 19-23, 26-30, July 10-14, 17-21 9:00-3:00.

Farm and Wilderness Exploration Day Camp for 10-13 Year Olds — July 24-28, 9:00-3:00.

A Taste of Summer: Life Lab's Annual Benefit — September 16

Fall Field Trips Begin in September

Harvest Festival — October 7, 11:00-5:00

www.lifelab.org/tours/events.html

Educator Workshops

5th Grade Science Test Preparation Institute — Jan. 5-7, Elkhorn Slough 3-day institute for teachers who want to help students succeed on the 5th grade STAR Test.

Creating Gardens for Learning — March 3

Learn to take the first steps of creating a living laboratory, including setting goals for your site, gathering input from users, making a fundraising plan, finding volunteers and donors, publicizing your garden and connecting to academic standards.

Discovering the Garden in Early Childhood Education — March 25 Sample many activities that can encourage young children to learn about their world using all their senses. Learn how to incorporate garden activities into a pre-school program or into family life.

Life Lab/Monterey Bay Science Project Spring Conference — April 1 A one day science conference showcasing science content and educational gardening. California State University Monterey Bay.

Growing Classroom Workshop — September 28-29

This popular workshop includes learning how to guide children in a garden setting, connecting to academic standards, program management and basic gardening and composting instruction.

www.lifelab.org/professional/workshops.html

Thanks to our Supporters:

Pajaro Valley Community Health Trust • David and Lucile Packard Foundation • True North • New Leaf Community Markets • Agri Culture • National Science Foundation • County of Santa Cruz • Waste Management • California Science Project • Zicarelli Foundation • Chez Panisse Foundation • West Marine • Stoneyfield Farm Profits for the Planet Fund • The Reiter Berry Farms, Inc • Jonathan and Susan Wittwer • Robert Stephens and Julie Packard • Roberta Jaffe and Steve Gliessman • Nancy Cooper, CPA • John and Patricia Brissenden • Anne Alexander Rowley

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