







## **Common Core in the Garden**

Tuesday, February 18, 2014



## **Presented By**

Whitney Cohen, Education Director at Life Lab

Join our community **Growing School Gardens**<a href="https://www.edweb.net/schoolgardens">www.edweb.net/schoolgardens</a>



# Thank you to our program partners!







www.edibleschoolyard.org

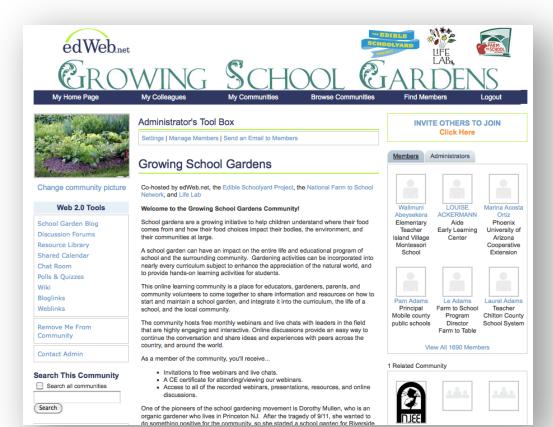
www.lifelab.org

www.farmtoschool.org









A CE certificate for today's webinar will be emailed to you

24 hours after the live session

Join our community **Growing School Gardens**www.edweb.net/schoolgardens

- Invitations to upcoming webinars
- Webinar archives and resources
- Online discussions
- CE quizzes for archived webinars



# **Webinar Tips**

- For better audio/video, close other applications (like Skype) that use bandwidth.
- Maximize your screen for a larger view by using the link in the upper right corner.
- You will be emailed a CE certificate within 24 hours for attending today.
- You will also receive information to access the recording of the webinar and the slides.
- Tweeting? Use the hashtag #edwebchat



# Common Core in the Garden

Whitney Cohen
Education Director, Life Lab
Lecturer, UC Santa Cruz

## Welcome!

- Introductions
- A Story
- How can we maximize Math and Language Arts education in the garden ... while also holding on fiercely to the magic?
- The Growing Classroom Standards Database



## Who's With Us?



## What Is Life Lab?

A California-based non-profit organization and national leader in farm- and garden-based education since 1979

We have field trips, summer camps, and a youth internship program in our Garden Classroom in Santa

Cruz, CA.





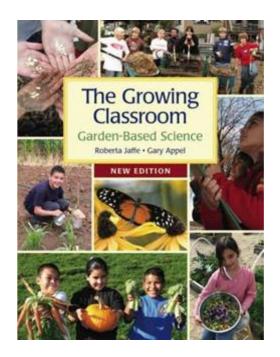
# Life Lab teaches people to care for ....

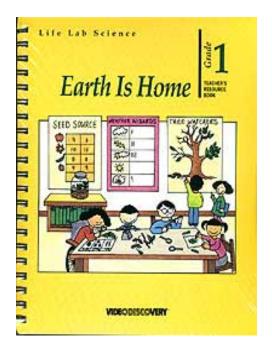
www.lifelab.org

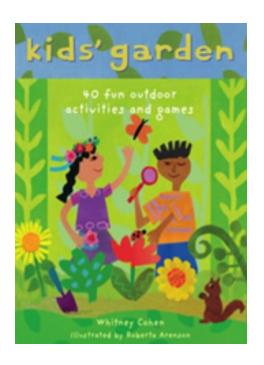
c Lab teaches people to care for ....



... through farm- and garden-based programs.





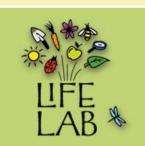


# **Books and Workshops**





We have trained tens of thousands of educators across the country.



Bring learning to life in the garden!



Life Lab teaches people to care for themselves, each other, and the world through farm and garden-based programs.

SEARCH



ABOUT LIFE LAB



FOR EDUCATORS





OUR GARDEN CLASSROOM



LIFE LAB STORE



## upcoming events

september 10 webinar: inquiry in the garden

september 21 ssow workshop

september 22 foodwhat benefit dinner

october 3-4 growing classroom workshop

october 10 pigiei workshop

october 11 school garden

fall sowing seeds of wonder field trips

october 24 creating and sustaining your school garden

november 15 growing healthy teens workshop

october 3 and november 20 life lab community tours

> Since 1979 Life Lab Science Program has supported science and garden-based education through publications, professional development, and innovative programs.

### Welcome to Life Lab

August 21st, 2013

Life Lab teaches people to care for themselves, each other, and the world through farm and garden-based programs.

Life Lab is a national leader in farm- and garden-based education. At the Life Lab Garden Classroom in Santa Cruz, California, we promote experiential learning for all ages through children's camps, field trips, youth and internship

programs, and teacher workshops.

Drawing on over thirty years of working with students we have also created curricula and workshops for educators interested in bringing learning to life in gardens nationwide.... [Read More  $\rightarrow$ ]

ShareThis

Posted in Life Lab Programs | 2 Comments

# Branching Out for Food Justice - FoodWhat Benefit Dinner

August 16th, 2013

Please Join Us! Learn more and register at www.foodwhat.org

The 4th Annual FoodWhat Benefit Dinner "Branching Out for Food Justice"

= The 4th Annual =====



Join Our Email List

Donate

Life Lab Publications

School Gardening Resources

School Garden Photos

Life Lab in the News

Chicken Webcam

The Garden, A Master Teacher

f Like U

Hear Us Tweet

You Tube Channel

### **Browse Posts**

Cooking and Nutrition
Farm to School
Garden Tips & Resources
GBL News & Articles
GBL Support Organization
Grants & Contests
Lessons & Activities
Life Lab in the News
Life Lab Programs

# And me ...?







## What Is Common Core?









(Thanks Google for the image)





Team Building Retreat at Pigeon Point Light House





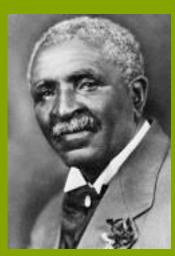


# It's Time to Abandon the False Dichotomy Between Fun and Learning



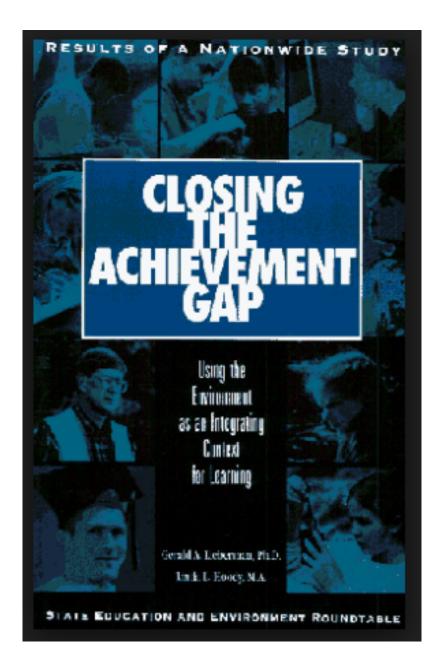


# George Washington Carver, circa 1900



"A real bug found eating on the child's cabbage plant in his little garden will be taken up with a vengeance in his composition class. He would much prefer to spell the real, living radish in the garden than the lifeless radish in the book. He would much prefer to figure on the profit of the onions sold from his garden than those sold by some John Jones of Philadelphia."





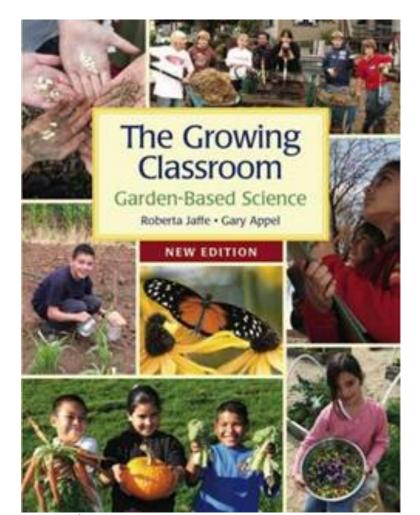






Igniting a Passion for Learning







## Six of One, Half Dozen of the Other

DESCRIPTION

Groups of students use multiple senses to find and classify contrasting objects in the natural environment.

OBJECTIVE

To use the senses to identify and classify objects in the garden laboratory.

MATERIALS

\* One egg carton per group of three

PREPARATION

On the bottom of each egg carton write two words. One should be a likely quality of a garden object, such as "wet." The other should be its opposite ("dry"). Use words that will encourage students to use their senses, such as dark/light, rough/ smooth, dull/colorful, scented/ unscented, scratchy/ soft, etc. Label each carton with different opposites. To discourage unsupervised tasting, avoid opposites that refer to taste.



THE GROWING CLASSROOM

CLASS DISCUSSION

What senses can we use to explore opposites in the garden? In this activity you will be searching for objects that have a specific quality, and those that have the opposite quality. What are some examples of opposites?

ACTION

66

1. Divide the class into groups of three. Tell the class that each group will get a special collecting container in which to collect 12 items. They shouldn't let any other group see the secret information on the bottom of the carton.



Let's Look at Some Examples ...





### The Growing Classroom Standards Database Main Menu

Search for a Lesson | Search for a Standard | Glossary | Purchase The Growing Classroom | Contact Us

Welcome to the The Growing Classroom Standards Database! Educators can use this

database to see how lessons from The Growing Classroom correlate to Next

Generation Science Standards, and Common Core Math and English Language Arts

Standards. You can search by lesson, grade level, key word, or standard.

Use the tabs above to access different sections of the database.

\*Please do not use your browser's forward and back buttons within this database. Browser navigation will result in automatic log out.\*

#### Main Menu

You are here!

#### Search for a Lesson

Search for specific lessons from The Growing Classroom, and find academic content standards related to each lesson.

#### Search for a Standard

Search for a Science, Math, or English Language Arts Standard, and find lessons from The Growing Classroom that address your chosen standards.

#### Glossary

Find definitions for codes used in the standards.

This guide was made to accompany The Growing Classroom: Garden-Based Science and Nutrition Activity Guide.



We are thrilled by the guiding principles behind the new science standards, which integrate content, practices, and crosscutting concepts to ensure that science education is meaningful, engaging, and effective. By highlighting the various ways each lesson in The Growing Classroom addresses these standards and provides opportunities for students to

and garden-based education through publications,

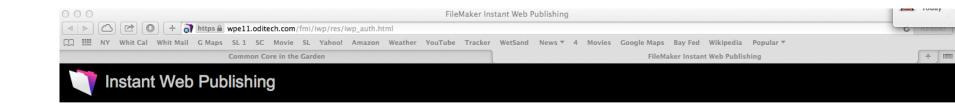
professional development, and innovative programs.

life lab's



Cooking and Nutrition Farm to School Garden Tips & Resources GBL News & Articles GBL Support Organization Grants & Contests Lessons & Activities Life Lab in the News Life Lab Programs Life Lab Publications School Garden Profiles Uncategorized Webinars and Hangouts Workshops & Events

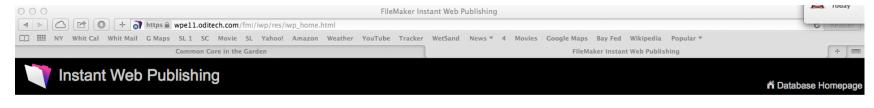
Recent Posts



Enter an account name and password to view databases hosted by FileMaker Server:

	<ul> <li>Guest Account</li> </ul>
	Account Name and Password
Account Name:	
Password:	
	Login





¬"FileMaker₀







## **The Growing Classroom Standards Database**

Main Menu

Main Menu

Search for a Lesson

Search for a Standard

Glossary Purchase The Growing Classroom

The Growing

Welcome to the The Growing Classroom Standards Database! Educators can use this

database to see how lessons from The Growing Classroom correlate to Next

Generation Science Standards, and Common Core Math and English Language Arts

Standards. You can search by lesson, grade level, key word, or standard.

Use the tabs above to access different sections of the database.

\*Please do not use your browser's forward and back buttons within this database. Browser navigation will result in automatic log out.\*

#### Main Menu

You are here!

#### Search for a Lesson

Search for specific lessons from The Growing Classroom, and find academic content standards related to each lesson.

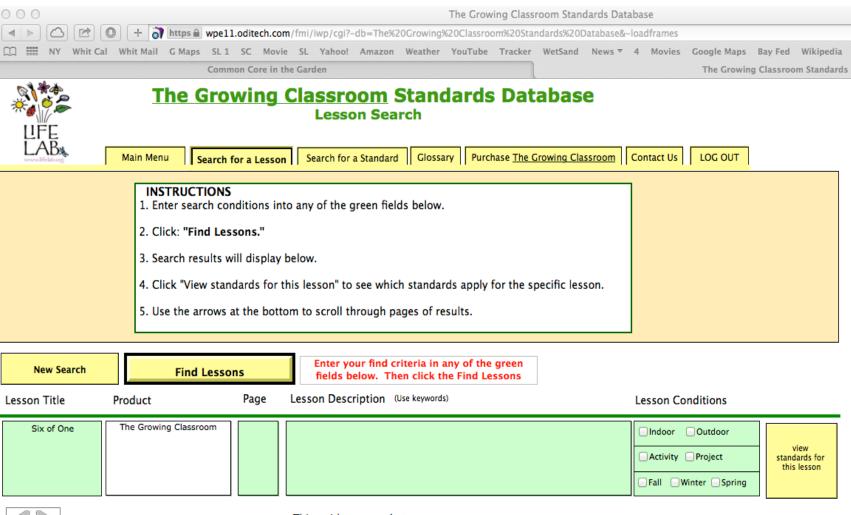
#### Search for a Standard

Search for a Science, Math, or English Language Arts Standard, and find lessons from The Growing Classroom that address vour chosen standards.

#### Glossary

Find definitions for codes used in the standards.

This guide was made to accompany The Growing Classroom: Garden-Based Science and Nutrition Activity Guide.

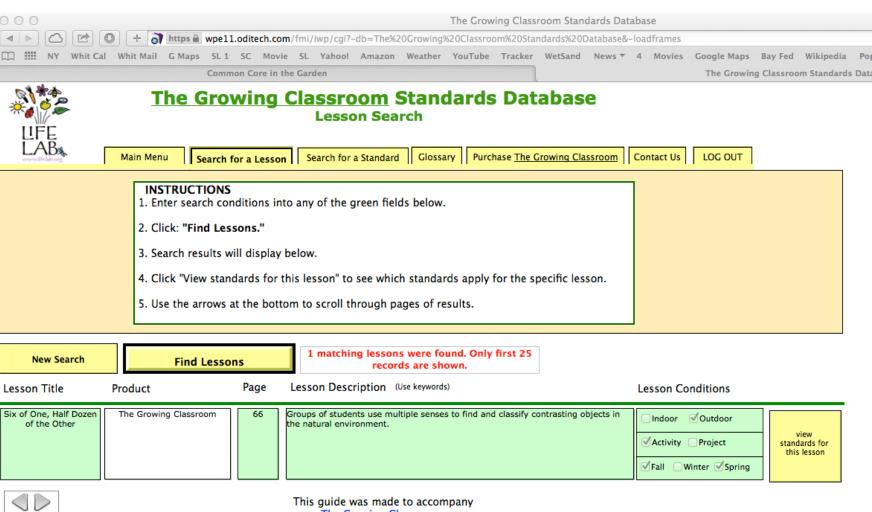


prev next

This guide was made to accompany
The Growing Classroom:
Garden-Based Science and Nutrition Activity Guide.

© Life Lab Science Program

Life Lab is a 501(c)(3) non-profit organization

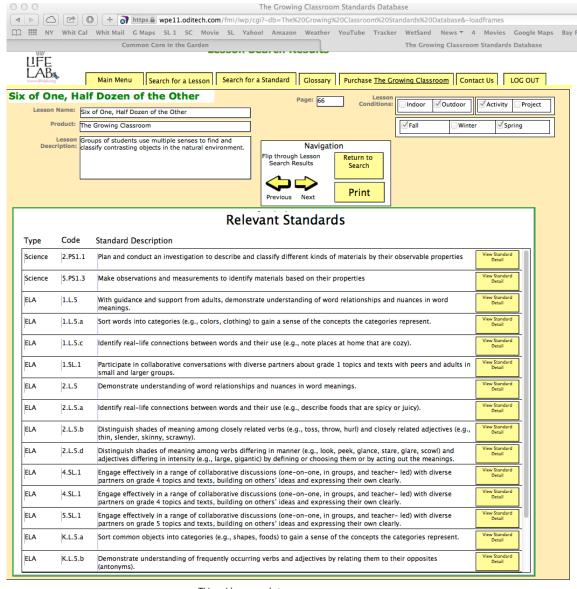


The Growing Classroom:

Garden-Based Science and Nutrition Activity Guide.

© Life Lab Science Program

Life Lab is a 501(c)(3) non-profit organization





This guide was made to accompany The Growing Classroom:

Garden-Based Science and Nutrition Activity Guide.

© Life Lab Science Program

Life Lab is a 501(c)(3) non-profit organization

# And that was without any extensions!





# Quick Poll





## The Growing Classroom Standards Database Standards Search

Search for a Lesson | Search for a Standard | Glossary | Purchase The Growing Classroom Main Menu Contact Us LOG OUT INSTRUCTIONS 1. Enter search criteria in any of the green fields below. 2. Click: "Find Standards." 3. Search results will display below. 4. Click on "View lessons for this standard" to see which lessons apply to that standard. 5. Use the arrow keys below to scroll through pages of results. Enter your search criteria in any of the green fields New Search Find Standards below. Then click the Find Standards button. Code Type Standard Grade Standard Description (Use keywords) ○ Kindergarten ○ Fourth Science Graph ☐ First view lessons for ○ Fifth ⊕ ELA



Math

This guide was made to accompany The Growing Classroom: Garden-Based Science and Nutrition Activity Guide.

Second
 Se

Third

this standard



# The Growing Classroom Standards Database Standards Search

LAB Mai	in Menu   Search for a Lesson   Search for a Standard   Glossary   Purchase The Growing Classroom   Contact Us   LOG OUT	
INSTRUCTIONS  1. Enter search criteria in any of the green fields below.  2. Click: "Find Standards."  3. Search results will display below.  4. Click on "View lessons for this standard" to see which lessons apply to that standard.  5. Use the arrow keys below to scroll through pages of results.		
New Search  Find Standards  3 matching standards were found. Only first 25 results are shown.  Type  Code  Standard Grade  Standard Description (Use keywords)  Science  ELA  Code  Standard Grade  Standard Description (Use keywords)  Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information this standard wiew lessons for this standard presented in a bar graph.		
Science ELA Math	C Kindergarten C Fourth First Fifth Second Third  Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more: and "how many less" problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.	



#### **The Growing Classroom Standards Database**

#### **Standards Search Results**

Main Menu | Search for a Lesson | Search for a Standard | Glossary | Purchase The Growing Classroom | Contact Us | LOG OUT

Standard Code 2.MD.10 Standard Type Math

Standard Description

Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using informaton presented in a bar graph.

# Navigation Flip through Standards Search Results Previous Next Print Print

#### Relevant Lessons Lesson Title Product Page Lesson Description Only the Nose Knows The Growing Classroom Students use their sense of smell to identify mystery fragrances. 62 view lesson detail The Nitty-Gritty The Growing Classroom Through a simple process, students separate soil into its three major components: sand, silt, view and clay. lesson detail To Dig or Not to Dig: The Growing Classroom 91 Students conduct a garden experiment on the effects of compaction on plant growth by view That is the Question monitoring seedling growth in compacted and loosened soil. lesson detail What Good is Compost? The Growing Classroom 98 Students grow two identical crops, one in a bed with compost and one in a bed without view compost. lesson detail A Warm Place to Grow The Growing Classroom 103 Students design and test ways to protect plants from frost damage. This activity should be view used during cool weather. lesson detail 291 A group of four students collects and charts daily weather information for one week and Keeping Track The Growing Classroom presents a weather report to the class using the weather station. lesson

# Questions so Far ...



## Literature and Informational Reading





# Reading and Writing with a Purpose

	Part 2
Name	Date
Look at your animal careful Be as accurate as you can.	ly and draw it in the box below.
	What do you think this animal eats?
	2. Why do you think so?
3. How does this animal mo	ve?
4. Why do you think so?	
5. What would you like to fir	nd out about this animal?
£ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	s? Look in animal identification books





# Speaking and Listening Standards











# This idea is, in fact, reflected in the Common Core Standards!

In Grade 2, students are asked to "identify real-life connections between words and their use (e.g. describe foods that are *spicy* or *juicy*.)"





# Speaking and Listening Standards K-12





"Participate in collaborative conversations with diverse partners."

# How can we really get those conversations going?





### Participation Strategies

• In the garden, we're always asking ourselves: How can I turn a simple task into something that requires all hands on deck?







## For discussions, we ask ...

• How can I structure the discussion so that we hear from as many voices as possible, and not just from the "rapid responders?"



# Language Scaffolds

#### OBSERVATIONS ORGANIZER Writing Frame

Think of properties you	Lobserved
can see such as size, shape, color, lines, texture, pattern, behavior	Tobserved
Think of the other senses of smell, sound, touch, and perhaps tastel	I noticed
Connect it with something that you already know.	It reminds me of
Add more detail as needed.	This is so because
Observe and record cause and effect.	When, it
Note any changes.	At first, But now
Be curious and ask questions you could investigate.	I am curious about
	It surprised me that
	OR
	I wonder what would happen if

2000® Betsy Rupp Fulwiller





#### And Now for Math ...





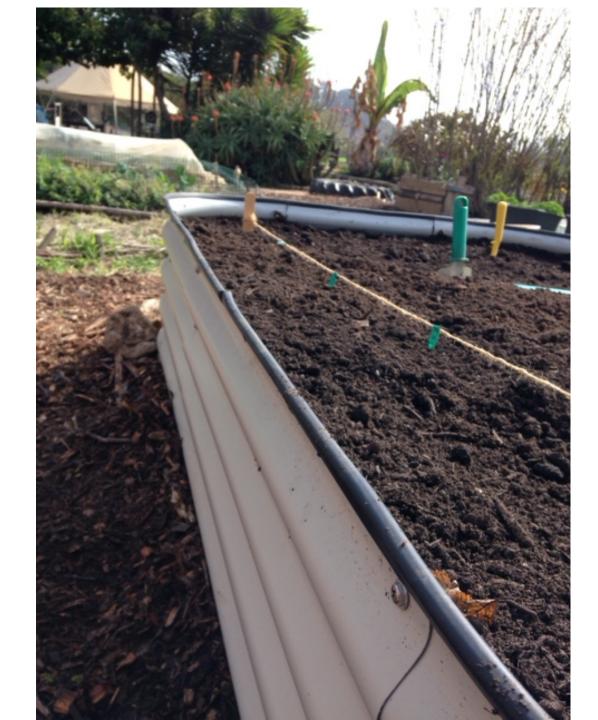




Measurement in Plant Spacing









#### Farmers' Measurements and Estimation











#### Spring & Summer 2014 Life Lab School Garden Workshops

#### Learn more & Register now!

www.lifelab.org/gcworkshops or 831.459.2001



Sowing the Seeds of Wonder: Discovering the Garden in Early Childhood Education \$150



The Growing Classroom: 2-Day Intensive on Garden-Based Learning Grade 2-6 | \$300



Plant It, Grow It, Eat It! Garden-Enhanced Nutrition Education Grade K-8 | \$150



The Growing Classroom: 2-Day Intensive on Garden-Based Learning Grade 2-6 | \$300



Sowing the Seeds of Wonder: Discovering the Garden in Early Childhood Education \$150

Life Lab is an independent 501(c)(3) nonprofit located on the UCSC Farm. 1156 High Street, Santa Cruz, CA 95064

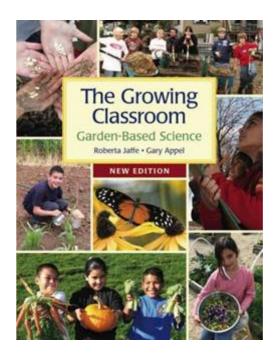


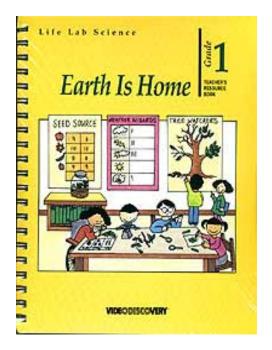
Life Lab has trained tens of thousands of educators across the nation!

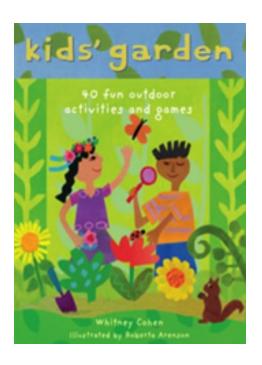
Continual Education Credit available for an additional \$60/workshop day. Financial assistance available





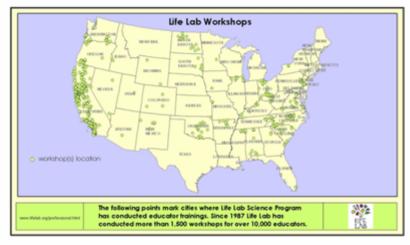






# **Books and Workshops**





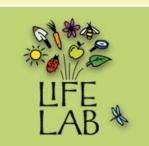
We have trained tens of thousands of educators across the country.





#### www.lifelab.org





Bring learning to life in the garden!



Life Lab teaches people to care for themselves, each other, and the world through farm and garden-based programs.

SEARCH



LIFE LAB



**EDUCATORS** 



FOR CHILDREN. YOUTH & FAMILIES



**OUR GARDEN** CLASSROOM



LIFE LAB STORE



#### upcoming events

september 10 webinar: inquiry in the garden

september 21 ssow workshop

september 22 foodwhat benefit dinner

october 3-4 growing classroom workshop

october 10 pigiei workshop

october 11 school garden

fall sowing seeds of wonder field trips

october 24 creating and sustaining your school garden

november 15 growing healthy teens workshop

october 3 and november 20 life lab community tours

> Since 1979 Life Lab innovative programs

#### Welcome to Life Lab

August 21st, 2013

Life Lab teaches people to care for themselves, each other, and the world through farm and garden-based programs.

Life Lab is a national leader in farm- and garden-based education. At the Life Lab Garden Classroom in Santa Cruz, California, we promote experiential learning for all ages through children's camps, field trips, youth and internship

programs, and teacher workshops.

Drawing on over thirty years of working with students we have also created curricula and workshops for educators interested in bringing learning to life in gardens nationwide.... [Read More →]

ShareThis

Posted in Life Lab Programs | 2 Comments

#### **Branching Out for Food Justice -**FoodWhat Benefit Dinner

August 16th, 2013

Please Join Us! Learn more and register at www.foodwhat.org

The 4th Annual FoodWhat Benefit Dinner "Branching Out for Food Justice"

= The 4th Annual =====



Join Our Email List

Donate

Life Lab Publications

School Gardening Resources

School Garden Photos

Life Lab in the News

Chicken Webcam

The Garden, A Master Teacher

**Hear Us Tweet** 

You Tuhe Channel

#### **Browse Posts**

Cooking and Nutrition Farm to School Garden Tips & Resources GBL News & Articles GBL Support Organization Grants & Contests Lessons & Activities Life Lab in the News Life Lab Programs









# Q&A

Type your questions in the chat window.



# Thank you to our program partners!







www.edibleschoolyard.org

www.lifelab.org

www.farmtoschool.org











One of the pioneers of the school gardening movement is Dorothy Mullen, who is an organic gardener who lives in Princeton NJ. After the tragedy of 9/11, she wanted to do something positive for the community so she starded a school garden for Riverside

Search

A CE certificate for today's webinar will be emailed to you
24 hours after the live session

Join our community

Growing School Gardens

www.edweb.net/schoolgardens

- Invitations to upcoming webinars
- Webinar archives and resources
- Online discussions
- CE quizzes for archived webinars



#### Join us for our next webinar:

# Tuesday, March 4, 2014 at 4pm Eastern Time Regional Support Models for Sustaining School Gardens

John Fisher, Outreach Director at Life Lab

Park Guthrie, Garden Education Specialist for the Oakland Unified School District in California

Join our community **Growing School Gardens** for an invitation: www.edweb.net/schoolgardens