People's Garden School Pilot Program

Session 2: Educational Toolkit and Implementation

2013 National Urban Extension Conference, Kansas

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Brad Gaolach

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WASHINGTON STATE UNIVERSITY EXTENSION

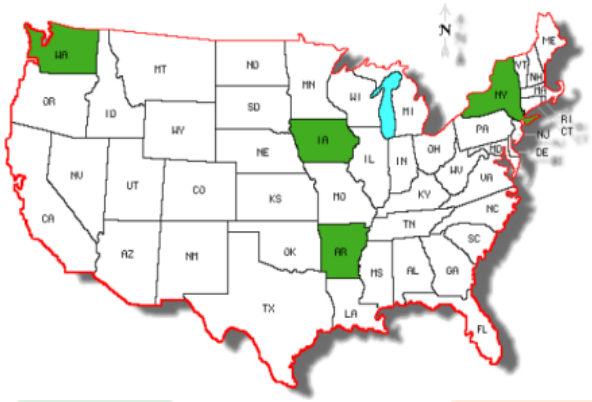
Cornell University Cooperative Extension

IOWA STATE UNIVERSITY University Extension Healthy People. Environments. Economies.

UofA UNIVERSITY OF ARKANSAS DIVISION OF AGRICULTURE

Project Overview

Project Parameters



- USDA/FNS funded project
  - $1 million, 2.5 years
  - Pilot
- Research Project
- 3-5 States, by population
  - 1 each from high (WA, NY); medium (IA); and low (AR).
- Schools having: 50%+ students receiving free & reduced price meals, & no existing gardens

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Project Goals

- Increase fruit and vegetable consumption
- Empower youth in their communities
- Contribute toward a sustainable environment and food system

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Project Partnership

- **National Project Leadership Team:**
  - Washington State University Extension
    Brad Gaolach, Martha Aitken, Karen Barale
  - Cornell University Cooperative Extension – New York City/Cornell University
    Gretchen Ferenz, Caroline Tse, Nancy Wells
  - Iowa State University Extension
    Nancy Franz, Janet Toering, Karen Pattison, Cayla Taylor, Linda Naeve
  - University of Arkansas Cooperative Extension
    Laura Connerly, Janet Carson, Julie Treat
- **54 Schools**
- **Local Volunteers**
- **Extension Educators**

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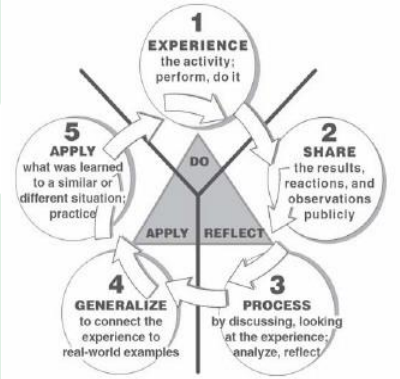
Guiding Philosophy



Strengths of the Land Grant University

- Office serving every county
- Local Extension Educators and volunteers, with expertise in:
  - Nutrition (e.g. SNAP-Ed)
  - 4-H/Youth Development,
  - Community-based Horticulture (e.g. Master Gardener Volunteers)
- Builds ‘community’ with additional local partners

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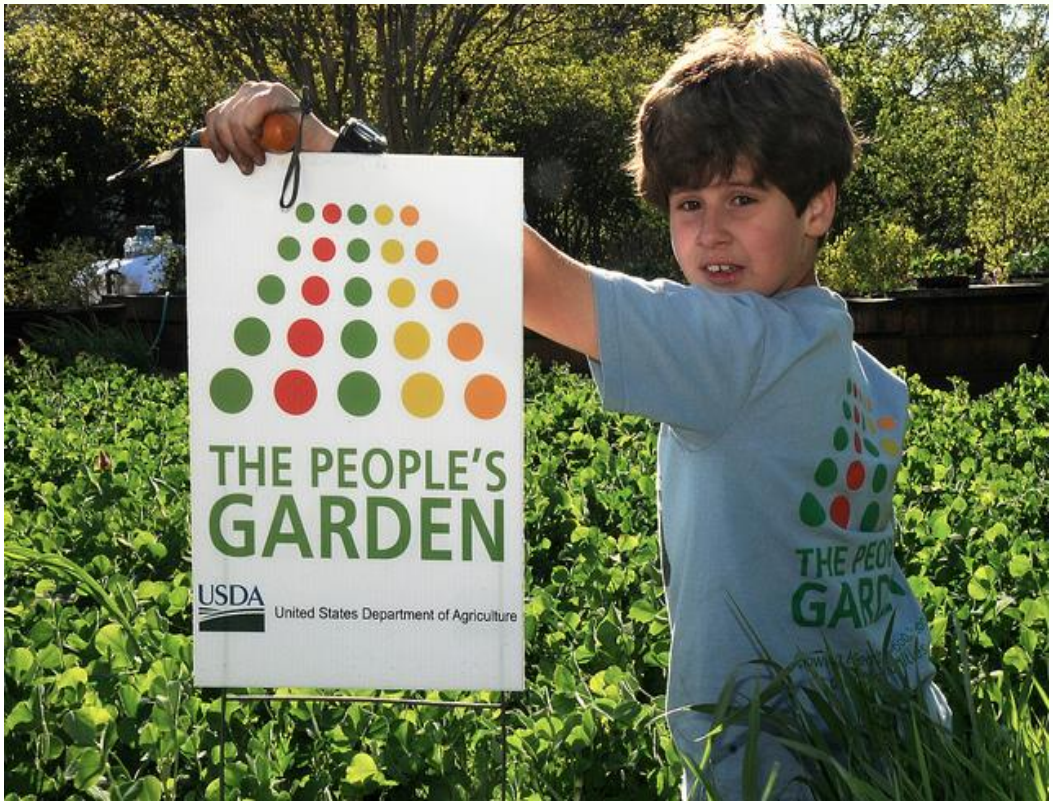
Research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USDA
United States Department of Agriculture

Cornell University Research Team

- Nancy M. Wells, PhD, Lead Researcher, Associate Professor, Design & Environmental Analysis (DEA), Cornell University
- Beth Myers, doctoral student, DEA
- Jennifer Wilkins, PhD, Division of Nutritional Sciences
- Charles Henderson, MS, Human Development (Statistician)
- Cornell Research Associates

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Research Questions

RQ 1: Does Fruit & Vegetable (FV) consumption at school increase as a result of garden participation?

RQ 2: Does FV consumption at home increase as a result of garden participation?

RQ 3: Does preference for FV change as a result of garden participation?

RQ 4: As a result of their involvement with the garden program, were there changes from baseline to follow-up in children's: FV knowledge; Engagement and participation in learning; Time spent outside, and amount of physical activity?

RQ 5: What mediating variables explain linkages from program activities to medium-term outcomes? e.g, Increased availability of FV at home, increased availability of FV at school.

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Evaluation Questions

EQ 1: Document the *development and operation* of school gardens serving high-poverty schools in four geographically diverse areas.

EQ 2: Record the *varieties of fruits and vegetables* planted and the quantity produced in the gardens.

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Educational Toolkit

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Content & Delivery Team

- Established a Content & Delivery Team to guide teaching by educators and learning by students
- Charged to assess and select project's 'curricular materials' and develop related training for Educators
- Comprised of Extension specialists in Nutrition, Youth Development and Horticulture
  - Karen Barale, team lead (Washington - Nutrition)
  - Janet Toering (Iowa – 4-H Youth Dev. & Gardening)
  - Gretchen Ferenz (Cornell – Urban Environment & Horticulture)
  - Elizabeth Falk (Cornell Garden-Based Learning Program)
- Additional resources from Cornell, Iowa State and Washington State Universities' Cooperative Extension Service

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Process Involved

- Weekly teleconference meetings
- Phone
- Email
- *SharePoint* management site
- Project website
- Webinar and video development

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Concept for an Educational Toolkit

- No curricula development
- Review existing quality curricular resources
- Select lessons, activities, and other items to match our objectives & criteria
- Compile all materials into an easily accessible ‘toolkit’

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Criteria for Selection of Content

- Experiential learning
- Age-appropriate nutrition, food, and gardening content and skills
- Research-based content and standards alignment
- Science, Technology, Engineering and Math (STEM) areas focus
- Enrich classroom instruction
- Support the school garden

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Common Core State Standards

- Individual curricula used state standards
- Pilot project focus on STEM
- Complied standards for each lesson

Lesson 3.8 April Food for Plants & People	ARTS	BEHAVIOR	CIVICS	ECONOMICS	GEOGRAPHY	HEALTH	READING/WRITING (All Common Core Standards)	LIFE SKILLS	MATH (All Common Core Standards)	SCIENCE
	S1	T19, T8	T10,	S1	T1, T3, T5,T11, T13, T17,	S5, S6, S8	CC English LA, Writing 3.2, 3.8	Thinking & Reasoning S3, S4, S5	T1, T2, T3, T4, T5	S1, S5, S6, S12
							CC English LA: Reading for Information Text RI3.1,3.2,3.3,3.4,3.7. 3.8	Working With Others S1, S2, S3, S4, S5		
								Self Regulation S1, S2, S3, S4, S5, S6		
								Life Work S1, S2, S6		

Educational Toolkit

- Hands-on, fun lessons & activities for classroom and garden
- For 2nd and 4th grades, year 1
- For 3rd and 5th grades, year 2
- Lots of additional resources

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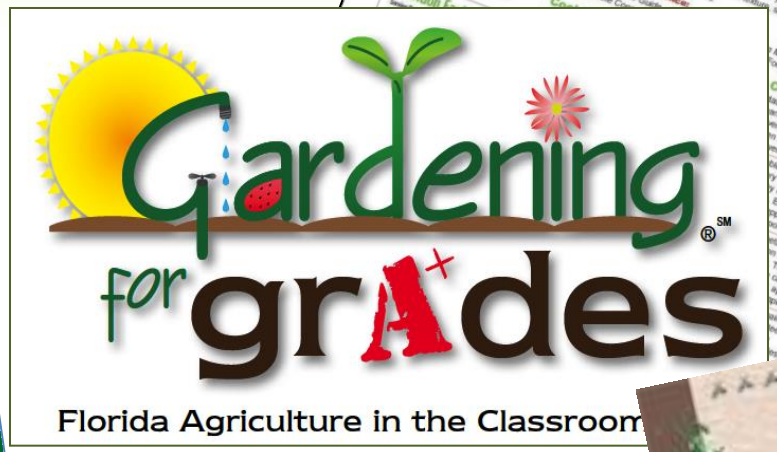
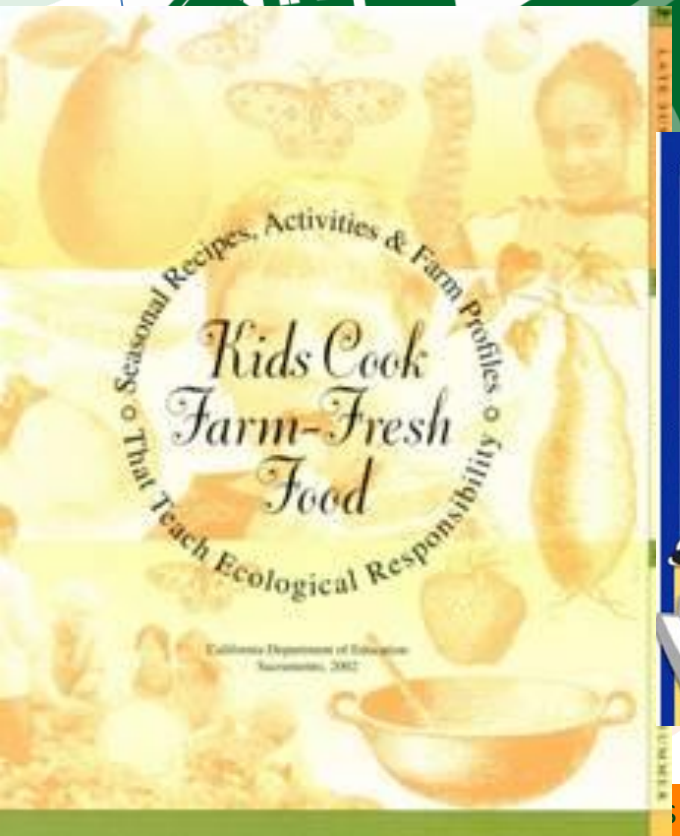
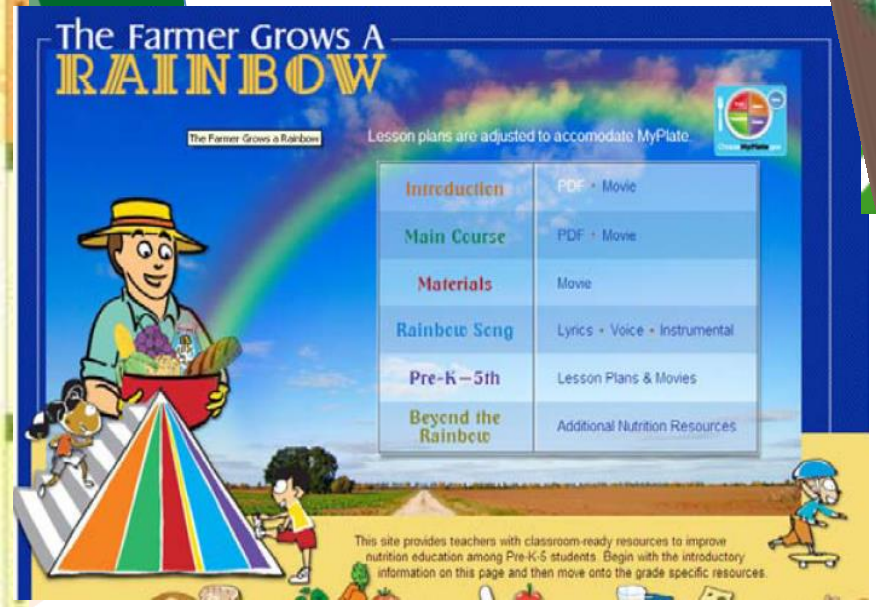
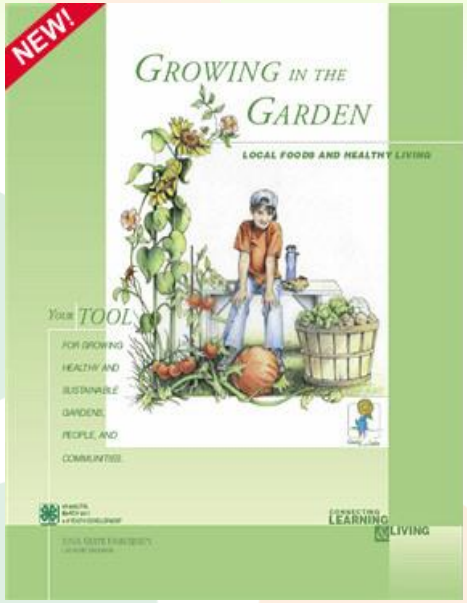
17 curricula reviewed







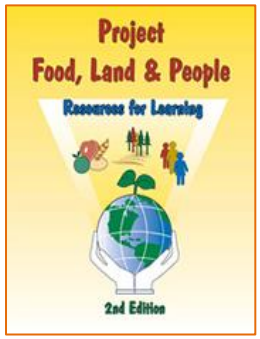
Curricula Selected – most closely met criteria



EATING FROM THE GARDEN

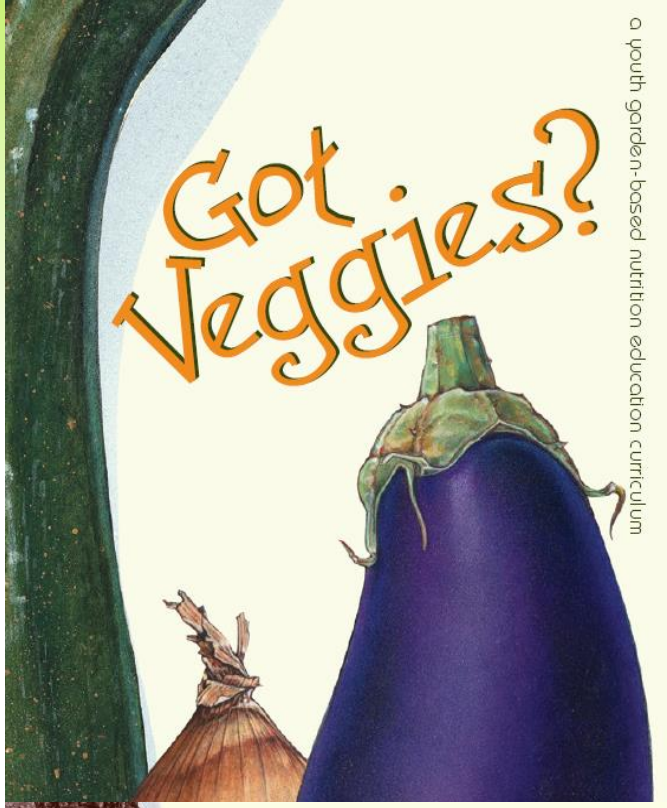
Growing Healthy Kids
Garden Enhanced Nutrition Education

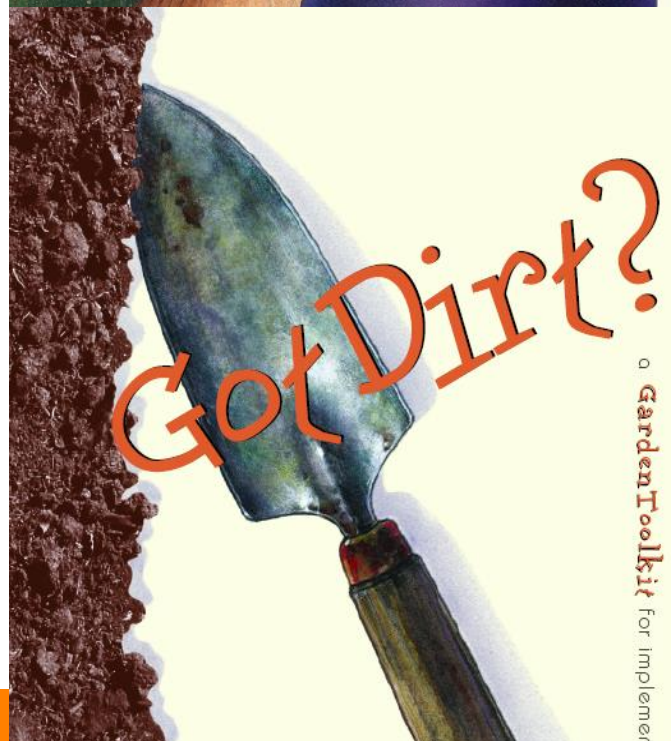
Garden Mosaics



Ithaca Children's Garden

Seed to Salad: Salad Party





Educational Toolkit Components

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Lesson Plans
Snack Suggestions and Recipes

Grade 3 January Lesson Planning

LESSON PLANS FOR 2012-13 SCHOOL YEAR, GRADE 3

January: How do you plan a garden the second year?

Table of Contents **Pages** (top right page corner)

Lesson Plan Outline: Before, The Lesson, and After 2

Gardening Tips for Working With Kids 5
Healthy Gardens, Healthy Youth Partnership

How do you plan a garden? 9
Iowa State University Extension and Outreach

Lesson: Our Food Garden Plan, from 16
Growing in the Garden: Local Foods and Healthy Living
Iowa State University Extension and Outreach

Garden Journal: See the Before section of the Lesson Plan

Recipe: Where We Live Fruits and Vegetables Sampler, See the Do section in the lesson

Snack Guide for Grade 4

Lesson	Snack Options
1 My Lunch Came From Soil and Carrot Tops	Mini Pizzas, Carrot Sticks, Moroccan Ca Salad
2 Get the Scoop on Soil	Melon Salad or Perfect Parfait
3 Our Healthy Garden Plan	Lettuce Wraps
4 Our Healthy Garden Plan (continued)	Salsa and Chips

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Garden Implementation and Beyond Guide

Provides instructions on how to:

- Create, plan, plant and maintain the garden through the school year
- Garden during the summer
- Engage volunteers
- Build community capacity
- Sustain and grow a school garden program

IMPLEMENTATION AND BEYOND: A GUIDE TO CULTIVATING A THRIVING SCHOOL GARDEN

This section serves as an addendum to the Educational Toolkit and may be used as a resource on its own.

INTRODUCTION

While this Educational Toolkit is specifically written for the close to 60 schools taking part in the **Healthy Gardens, Healthy Youth** (HGHY) pilot program, the content and curriculum within are intended to be applicable to and eventually made available to any school and any garden seeking to incorporate youth into gardening programs.

There are thousands of excellent resources and garden-based learning curricula available from many organizations. Rather than write new material, a main purpose of this project was to bundle some of the best garden-based learning curricula into one user-friendly toolkit. Similarly, to create the ***Implementation and Beyond*** guide, we reviewed already written resources, slightly adapted them when necessary, and compiled them into one comprehensive

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School Food Services Resources

Smarter Lunchrooms Movement

My Garden School Meals Resource

MICHIGAN Department of Education

Project ReFresh Cafeteria Toolkit

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Food Safety in the Garden Resources

GARDEN TO TABLE
STORING FRESH GARDEN PRODUCE

USDA

MEMO CODE: SP 32-2009

DATE: July 29, 2009

SUBJECT: School Garden Q&As

TO: Regional Directors
Child Nutrition Programs
All Regions

State Directors
Child Nutrition Programs
All States

Food Safety Tips for School Gardens

USDA

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Training

- Across 4 states
- Written overview and documentation online
- Webinars online
- Videos on YouTube channel

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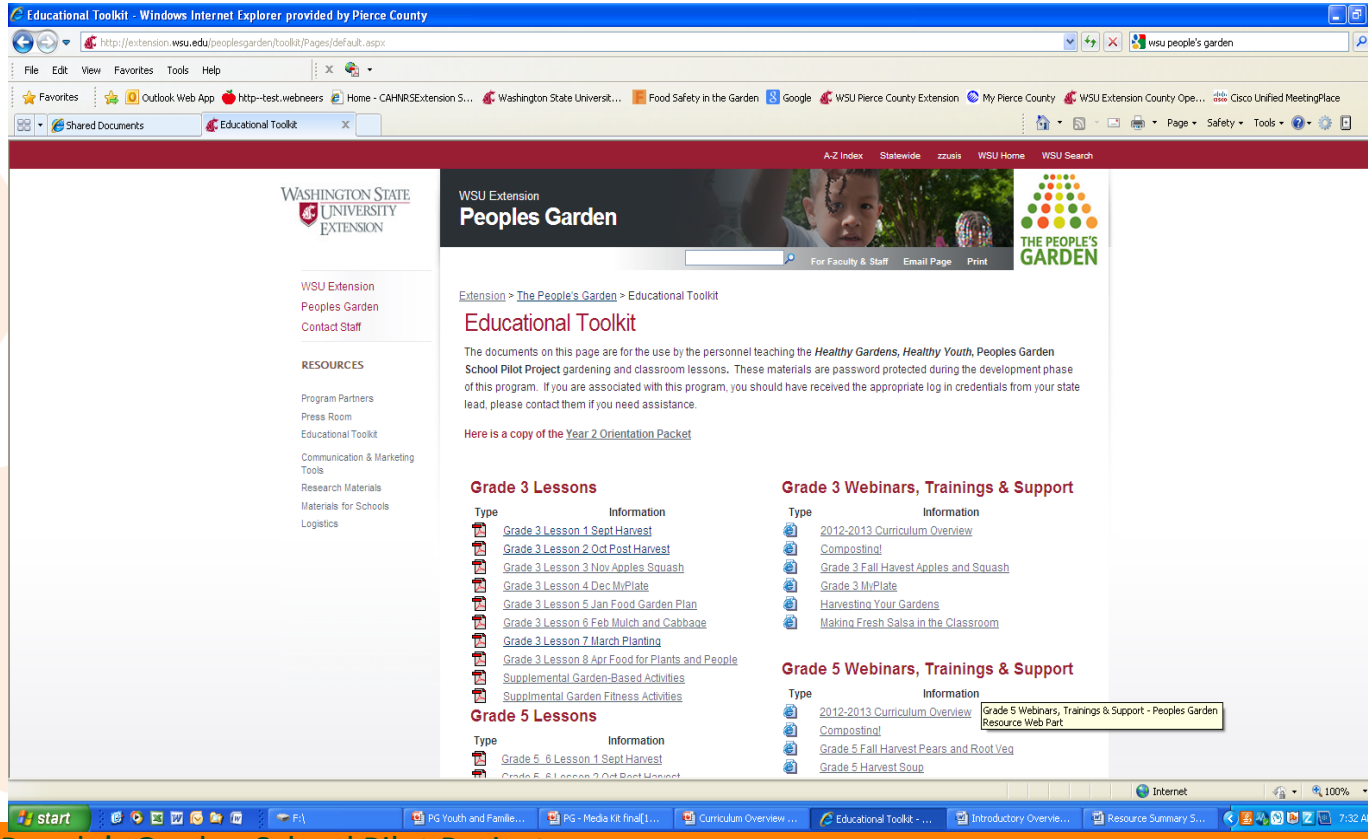
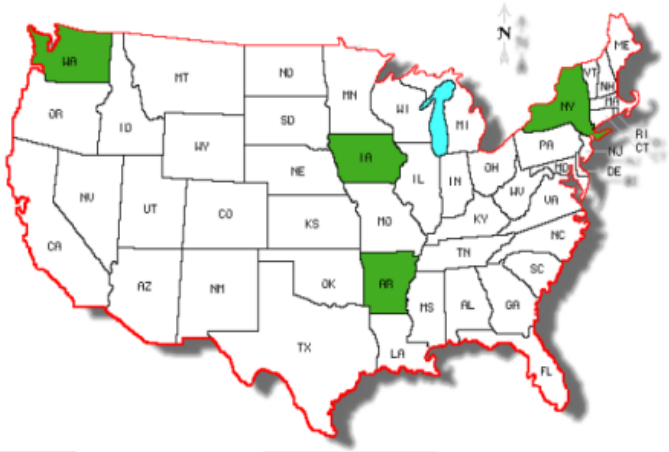
http://www.youtube.com/watch?v=-59HbUWZCbI

Project Website

- Password protected access to the Educational Toolkit's lessons & resources, and related training materials



Toolkit Implementation



- **Locally adaptable**
- **Delivery varied by county**
  - **Classroom teachers could integrate the lesson components over time**
  - **Extension Educators delivered lessons in weekly sessions, and provided teachers with options for additional integration**
- **Climate played a role in how many lessons were delivered the first year**

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Toolkit Next Steps

Teacher feedback

Toolkit revision

Final permissions

Rollout

Research Connection

- Research project
- Implementation Obstacles
  - School limitations
  - Data collection
  - Delivery time
  - Password protected websites
- Locally adaptable toolkit allows for many variations
- Need to measure the degree of fidelity as part of data analysis

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Success Story – Washington

- Summer Garden at Bow Lake Elementary
- Summer camp help
- Food bank donations

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Success Story – Arkansas

- Bountiful Harvest at Junction City Elementary School

- Square Foot Gardening

Link to YouTube video:
http://www.youtube.com/watch?v=POekik_Zhrc

Success Story – New York

- Retirees in Service to the Environment (RISE) research study developed by Cornell Institute for Translational Research on Aging
- Leveraged funds to conduct study in this project's school gardens sites in NY
- A RISE Volunteer harvests an edible green tomato with a 3rd grader at Grandview School, NY.

Link to YouTube video:

http://www.youtube.com/watch?v=wPlH4PkV6qQ&list=UUv_1XhSnnmMPBaK6t4aCgBg

Success Story – Iowa

- Iowa State University Extension 4-H and Families recognized need for sustainability for all classes in participating school grades
- Secured a grant award from the Wellmark Foundation: Healthy Communities Grants program
- Grant provides lessons, gardens, healthy snacks, and leadership for a total of 130 classrooms, almost 3,000 youth, and 20 summer programs

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Lesson Learned

- Many resources available
- Integration of Garden-Enhanced Education takes commitment
- Teams are key to success
- Community partners enhance implementation
- Educational Toolkit provides a roadmap for successful school gardening

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Questions?

Follow the Project:

Project website:

peoplesgarden.wsu.edu

Facebook:

www.facebook.com/HealthyGardensHealthyYouth

YouTube channel:

www.youtube.com/user/ExtSchoolGarden

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This project has been funded at least in part with Federal funds from the U.S. Department of Agriculture. The contents of this publication do not necessarily reflect the view or policies of the U.S. Department of Agriculture, nor does mention of trade names, commercial products, or organizations imply endorsement by the U.S. Government. Project number CN-CGP-11-0047.

USDA

Thank you

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