245 School and Community Gardens: A Recipe for Health

Wednesday, March 14, 2012: 3:15 PM-5:15 PM
Convention Center: Room 202

AAHE/Implement Strategies/Interventions/Programs

Presider: Judith A. Ausherman, Cleveland State University, Cleveland, OH

School and community gardens are a growing trend in the US. How do health teachers incorporate nutrition and healthy eating? How can we grow gardens in university, charter or public schools? How do we integrate gardening, nutrition education and other core subjects? Come hear the answers and learn about three different approaches to garden-based learning.

Cultivating 21st Century Skills: How School Gardening Enhances Health Literacy

Judith A. Ausherman¹, Dena A. Deglau² and Michelle Barton-Verdi¹, (1)Cleveland State University, Cleveland, OH, (2)University of Maryland, College Park, MD

School Community Gardens: Wellness4All One Mouth at a Time

Robert Knipe, University of Texas Elementary School, Austin, TX and Rebecca Lambdin-Abraham, Austin ISD, Austin, TX

Creating an Interdisciplinary Garden-Based Learning Curriculum: Lessons From the Field

Dena A. Deglau¹, Judith A. Ausherman² and Michelle Barton-Verdi², (1)University of Maryland, College Park, MD, (2)Cleveland State University, Cleveland, OH
Cultivating 21st Century Skills: How School Gardening Enhances Health Literacy

Judith Ausherman, EdD, CHES¹, Dena Deglau, PhD², and Michelle Barton-Verdi, MS¹

(1) Cleveland State University, Cleveland, OH, (2) University of Maryland, College Park, MD

March 14, 2012
Objectives:

- Explore ways to integrate “health literacy” using the curriculum framework for Primary Years Programme (PYP).

- Examine the interrelationships of health education, language arts, science, and mathematics.

- Obtain relevant resources for developing a thematic unit that is tied to a school garden.
Cultivating 21st Century Skills

1. What are 21st Century Skills?

2. How do we define “health literacy”?
Learning and innovation skills increasingly are being recognized as the skills that separate students who are prepared for increasingly complex life and work environments in the 21st century, and those who are not.
Learning and Innovation Skills

- Critical Thinking and Problem Solving
- Communication & Collaboration
- Creative and Innovative
21st Century Skills

- Critical Thinking & Problem Solving
- Creative and Innovative
- Communication & Collaboration

Health Literate and Productive Citizen
21st Century Taxonomy
21st Century Skills:

Critical Thinking & Problem Solving

**Reason Effectively**
- Use various types of reasoning (inductive, deductive, etc.) as appropriate to the situation

**Use Systems Thinking**
- Analyze how parts of a whole interact with each other to produce overall outcomes in complex systems

**Make Judgments and Decisions**
- Effectively analyze and evaluate evidence, arguments, claims and beliefs
- Analyze and evaluate major alternative points of view
- Synthesize and make connections between information and arguments
- Interpret information and draw conclusions based on the best analysis
- Reflect critically on learning experiences and processes

**Solve Problems**
- Solve different kinds of non-familiar problems in both conventional and innovative ways
- Identify and ask significant questions that clarify various points of view and lead to better solutions
Communication & Collaboration

Communicate Clearly

- Articulate thoughts and ideas effectively using oral, written and nonverbal communication skills in a variety of forms and contexts
- Listen effectively to decipher meaning, including knowledge, values, attitudes and intentions
- Use communication for a range of purposes (e.g. to inform, instruct, motivate and persuade)
- Utilize multiple media and technologies, and know how to judge their effectiveness a priori as well as assess their impact
- Communicate effectively in diverse environments (including multi-lingual)

Collaborate with Others

- Demonstrate ability to work effectively and respectfully with diverse teams
- Exercise flexibility and willingness to be helpful in making necessary compromises to accomplish a common goal
- Assume shared responsibility for collaborative work, and value the individual contributions made by each team member
Creativity & Innovation

Think Creatively

- Use a wide range of idea creation techniques (such as brainstorming)
- Create new and worthwhile ideas (both incremental and radical concepts)
- Elaborate, refine, analyze and evaluate their own ideas in order to improve and maximize creative efforts

Work Creatively with Others

- Develop, implement and communicate new ideas to others effectively
- Be open and responsive to new and diverse perspectives; incorporate group input and feedback into the work
- Demonstrate originality and inventiveness in work and understand the real world limits to adopting new ideas
- View failure as an opportunity to learn; understand that creativity and innovation is a long-term, cyclical process of small successes and frequent mistakes

Implement Innovations

- Act on creative ideas to make a tangible and useful contribution to the field in which the innovation will occur
What is Health Literacy?
Traditional Definitions of “Health Literacy”

**Health Education**

Health literacy is the capacity of an individual to obtain, interpret, and understand basic health information and services and the competence to use such information and services in ways that are health enhancing.


**Medical Education**

Health literacy is the degree to which individuals can obtain, process, and understand the basic health information and services they need to make appropriate health decisions.

But health literacy goes beyond the individual. It also depends upon the skills, preferences, and expectations of health information and care providers: our doctors; nurses; administrators; home health workers; the media; and many others.

In order to access health information:

**Health Education**
- Consumers need to demonstrate these skills with continuous practice:
  - Decision making
  - Goal Setting
  - Communication
  - Stress Management
  - Conflict Resolution
    - for exercise, nutrition, sleep, hygiene, safety, and relationships (Habits of Health)

**Medical Education**
- Consumers need to demonstrate that they can:
  - Fill out medical, dental, & dietary forms;
  - Read and take correct medication;
  - Act on medical, dental, and dietary information;
  - Others?
    - Engage in dialogue
    - Ask follow up questions
Key Differences by Definition

- Health Promotion and Disease Prevention includes:
  
  **LEVELS OF PREVENTION**
  
  - **PRIMORDIAL PREVENTION**: establish or maintain conditions to minimise hazards to health
  - **PRIMARY PREVENTION**: prevent disease well before it develops
    - Reduce risk factors
  - **SECONDARY PREVENTION**: early detection of disease
    - (e.g., Screening & Intervention for Pre diabetes)
  - **TERTIARY PREVENTION**: treat established disease to prevent deterioration
  
- **Health Education** focuses on primary prevention.

- **Medical Education** focuses on secondary and tertiary prevention.
Health Literacy

- Obtaining, interpreting and understanding basic health information and services and using such information and services in ways that are health enhancing
- Understanding preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction
- Using available information to make appropriate health-related decisions
- Establishing and monitoring personal and family health goals
- Understanding national and international public health and safety issues

Additional resources:

1. **CCSSO’s Health Education Assessment Program (HEAP)**

The goal of CCSSO’s HEAP initiative is to develop effective health education assessment resources through a collaborative process, and to increase members' capacity to align curriculum, instruction, and assessment to improve student health literacy through improved health education instruction. The project has developed a variety of assessment materials that are appropriate for use by teachers at the classroom level, and for use in district and large-scale assessments of health education. In addition, the project has developed a variety of professional development materials to support teacher training in standards-based health education and assessment.
Defining “Health Literacy”

Health Education

Health literacy is the capacity of an individual to obtain, interpret, and understand basic health information and services and the competence to use such information and services in ways that are health enhancing.


21st Century Theme

Health Literacy:
- Obtaining, interpreting and understanding basic health information and services and using such information and services in ways that are health enhancing
- Understanding preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction
- Using available information to make appropriate health-related decisions
- Establishing and monitoring personal and family health goals
- Understanding national and international public health and safety issues
21st Century Theme: Health Literacy

Health Literacy

- Obtaining, interpreting and understanding basic health information and services and using such information and services in ways that enhance health
- Understanding preventive physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction
- Using available information to make appropriate health-related decisions
- Establishing and monitoring personal and family health goals
- Understanding national and international public health and safety issues

How does nutrition education and gardening:

Use Information to Make Health Related Decisions?

Improve an Understanding of Prevention?

Establish and Monitor Goals? (Nutrition)
How to Integrate Concepts

- National Health Education Standards
- Health Education Curriculum Analysis Tool
- International Baccalaureate School Curriculum
  - Primary Years Programme (PYP)
National Health Education Standards:  
**Standard 3**  
Students will demonstrate the ability to access valid information, products, and services to enhance health.

---

**Healthy Youth!**

**NHES: Standard 3**

Demonstrate the ability to access valid information, products, and services to enhance health.

**Rationale:** Access to valid health information and health-promoting products and services is critical in the prevention, early detection, and treatment of health problems. This standard focuses on how to identify and access valid health resources and to reject unproven sources. Application of the skills of analysis, comparison, and evaluation of health resources empowers students to achieve health literacy.

**Performance Indicators**—Health Education Standard 3

<table>
<thead>
<tr>
<th>Pre-K–Grade 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.2.1 Identify trusted adults and professionals who can help promote health.</td>
</tr>
<tr>
<td>3.2.2 Identify ways to locate school and community health helpers.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grades 3–5</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.5.1 Identify characteristics of valid health information, products, and services.</td>
</tr>
<tr>
<td>3.5.2 Locate resources from home, school, and community that provide valid health information.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Grades 6–8</th>
</tr>
</thead>
<tbody>
<tr>
<td>3.8.1 Analyze the validity of health information, products, and services.</td>
</tr>
<tr>
<td>3.8.2 Access valid health information from home, school, and community.</td>
</tr>
<tr>
<td>3.8.3 Determine the accessibility of products that enhance health.</td>
</tr>
<tr>
<td>3.8.4 Describe situations that may require professional health services.</td>
</tr>
<tr>
<td>3.8.5 Locate valid and reliable health products and services.</td>
</tr>
</tbody>
</table>
Health Education Standards: Health Literacy

• Focuses on health literacy in standard #3;

• National Health Education Standards include performance indicators by grade levels that assesses what students know and are able to do;

• Need to ask students to show how they know health education (and not just show that they know);

• What would those behaviors look like?
Health Behavior Outcomes

• What is the purpose of teaching nutrition education?

• What will a student know and be able to do?

• How do educators transfer learning from a classroom to the real world?
How could a school garden improve a pre-K-12 healthy eating curriculum?
I'm privileged to be the Principal of the Campus International School and I'm pleased to introduce you to our school. Campus International opened in August 2010 as a partnership between the Cleveland Metropolitan School District and Cleveland State University. The school consists of four grades – Kindergarten through 3rd grade. Each year we will add a grade until we are a K-12 school. Student learning is the focus of CIS. We are pursuing the International Baccalaureate Primary Years Programme, a rigorous academic curriculum. Starting in Kindergarten CIS students take Mandarin as a second language. Our partnership with CSU provides us with instructional enrichment activities and academic services for our students. We encourage our students to be independent learners and we strive to know them as individuals. At CIS we are fortunate to have active parental involvement, and a knowledgeable, committed and caring staff.

We know that you have choices in selecting an elementary school for your child and we warmly welcome prospective parents. Our students are proud of their school and enjoy visitors. Check out our website and feel free to contact me at Julie.A.Beers@cmsdnet.net if you have any questions regarding the school.

Julie Beers Principal
How the World Works
New unit
“The World is Amazing”

Dr. Judy Auschermann of CSU has recently secured a grant for CIS which will help pay for a school garden. She and her graduate students in the Physical and Health Education program are going to partner with the Kindergarten team. Under the IB Planner theme “How the World Works,” their new unit is “The World is Amazing” and this garden will help them to discover why! Students will learn about local agriculture and planting procedures, along with the opportunity to eat the wonderful foods that they grow. Everyone is excited for spring so this great project can begin to take root!
International Baccalaureate Curriculum

• **Primary Years Programme Curriculum framework**
  
• At the heart of the programme's philosophy is a commitment to structured, purposeful inquiry as the leading vehicle for learning.

**Six transdisciplinary themes**

• Six transdisciplinary themes of global significance provide the framework for exploration and study:
  
  • who we are
  • where we are in place and time
  • how we express ourselves
  • how the world works
  • how we organize ourselves
  • sharing the planet.
PYP Curriculum Framework
Integrative Approach

Health Literacy

- Critical Thinking
- Decision Making
- Problem Solving
- Effective Communicator
- Lifelong Learner
- Making a Difference (Responsible Citizen)

IB learners strive to be:

- inquirers
- knowledgeable
- thinkers
- communicators
- principled
- open-minded
- caring
- risk-takers
- balanced
- reflective.

What are the Connections
### What do we want to know about science and technology? 
#### Programme of inquiry

<table>
<thead>
<tr>
<th>Living things:</th>
<th>The study of humans and other animals, plants, and the environment and the interactions between them.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ourselves</td>
<td></td>
</tr>
<tr>
<td>Animals</td>
<td></td>
</tr>
<tr>
<td>Plants</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Earth and space:</th>
<th>The study of the planet earth and its relationship to the universe.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td></td>
</tr>
<tr>
<td>Atmosphere</td>
<td></td>
</tr>
<tr>
<td>Space</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Materials and matter:</th>
<th>The study of the origins, properties and uses of natural and human-made solids, liquids and gases.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gases</td>
<td></td>
</tr>
<tr>
<td>Liquids</td>
<td></td>
</tr>
<tr>
<td>Solids</td>
<td></td>
</tr>
</tbody>
</table>
### Personal education:

**Self concept:**
- The development of an awareness of one’s own feelings and behaviour. Learning strategies for coping with, communicating about, and managing feelings.

**Health:**
- The development of an awareness of aspects of overall health, including physical growth, nutrition and the control of diseases and substances that affect the body. Positive lifestyle choices in order to promote and maintain health are encouraged.

**Safety:**
- The development of safe behaviour practices to be used in the home, school and community.

**Organization for learning:**
- The development of an awareness of strategies by which to become a successful learner, including the adoption of a positive attitude toward responsibilities. The making of independent choices in relation to learning and those with whom one works.

### Social education:

**Cultural understanding:**
- The study and acceptance of cultural, racial, and religious similarities and differences.

**Interaction with others:**
- The development of an awareness of social norms and values within the family, the school community and society. The understanding of conflict and development of appropriate ways of dealing with it.

**Environmental understanding:**
- The development of an appreciation for the environment and the need to reflect and act on our responsibilities towards it.

Social education is the study of the growing interaction of the individual within his/her family, learning community and society, and the world at large.
Objectives:

• Explore ways to integrate “health literacy” using the curriculum framework for Primary Years Programme (PYP)

• Examine the interrelationships of health education, language arts, science, and mathematics.

• Obtain relevant resources for developing a thematic unit that is tied to a school garden.
Core Subjects and 21st Century Themes

Mastery of core subjects and 21st century themes is essential for students in the 21st century. Core subjects include:

- English, reading or language arts
- World languages
- Arts
- Mathematics
- Economics
- Science
- Geography
- History
- Government and Civics

In addition to these subjects, we believe schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving 21st century interdisciplinary themes into core subjects:

- Global awareness
- Financial, economic, business and entrepreneurial literacy
- Civic literacy
- Health literacy
- Environmental literacy

Examine the interrelationships of health education, language arts, science, and mathematics.
Integration of School Gardens

- Reading
- Writing
- Health Education
- Nutrition and School Gardens
- Science
- Fine Arts
- Social Studies
- Math
Connection to Other Health Concepts

Diagram:
- Community
- Mental Health
- Drug Prevention
- Personal Health
- Injury Prevention
- Sexuality Education
- Consumer Health
- Disease Prevention and Control
Integrating The Garden Into Your Curriculum

**Reading & Health**

- Both fiction and non-fiction books focus on garden related subjects.
- Gardens can incorporate a **health related theme** from a book.
- Large gardens can incorporate different books by grade level.

**Math & Health Education**

- Use gardening to teach measurement to plan a garden.
- Sell produce in a classroom farmers market to teach money concepts.
- Chart daily soil temperature, graph and compute averages.
- Create lessons of division, area, perimeter, fractions and percentages.
Integrating The Garden Into Your Curriculum

Social Studies & Health
- Teach social skills and cooperative work
- Integrate different cultures and gardens of different worlds
- Have a class party to sample new vegetables from the garden

Writing & Health
- Health theme journal writing
- Inspiration from the garden
- Write poems around the senses (I see…, I hear…, I smell…, I know…)
- Critical thinking about how nutrition is important for health growth and development.
Integrating a School Garden into Science & Health Education

• Provides a hands on laboratory
• Geminated seeds (growth & development)
• Learn about their parts and functions
• Discuss daily nutritional needs
• Care of the environment
Healthier Children Learning about Nutrition

- Learn and develop good food habits
- Provide a variety of healthy food experiences
- Help children to discover where food comes from
- Encourage children to eat a variety of foods for good nutrition
- Introduction to the basic sources of food
- Make connections to plants and the foods they eat
Objectives:

• Explore ways to integrate “health literacy” using the curriculum framework for Primary Years Programme (PYP)

• Examine the interrelationships of health education, language arts, science, and mathematics.

• Obtain relevant resources for developing a thematic unit that is tied to a school garden.
Integrative Approach to Teaching Health Education
Welcome to the Research Guide for Dr. Ausherman's HED 461 Methods and Materials for Health Education class.

The resources collected here will help you complete class assignments and projects.

Please call me or email me if you need research assistance or if you would like to schedule an appointment. I am happy to meet with students individually to help you get started with your research or to answer any questions.

Good Luck!

Barbara Strauss
Library Resources
Feeding Cleveland: Urban Agriculture

A recurring theme in 20th century Cleveland...

... that continues to the present day is that during difficult economic periods communities of people have come together to raise food crops on city land. The working men’s farms during the Great Depression, the victory gardens during World War II, community gardens established during the years of urban renewal, and the present day market gardeners of the local food movement, all provide examples of revivals of urban agriculture as a response to economic difficulties.

During this same time period the innovative Cleveland Public Schools Horticulture Program (CPSHP) began training the first of many generations of student gardeners. Although the system-wide CPS horticulture program ended in 1978, some of these former school garden sites called tract gardens, became community garden sites. The most significant legacies of the Cleveland Public Schools Horticulture Program were the gardeners themselves. On the commercial front, greater Cleveland was home to America’s largest concentration of farming acreage under glass. (Rose, 1950)

Source: http://www.clevelandmemory.org/urbag/index.html
An article in the Sunday Plain Dealer dated, March 24, 1907, titled "Gardens in the Heart of the City" describes the beginning of the innovative Cleveland Public Schools, (CPS) horticulture program that trained many generations of gardeners. A 1948 report, (courtesy of the Cleveland Public Library) "Gardens in the Cleveland Public Schools" written by then Supervisor of School Gardens, Paul R. Young, is a snapshot of the program as it existed in the post-WWII years.

In the 1990’s Ohio State University, (OSU) Master Gardeners of Cuyahoga County re-opened and cleaned the garden classroom that was locked-up and unused for over 20 years. In 1996 they created and teach a hands-on science curriculum for fourth graders at Benjamin Franklin Elementary School. Since the 1980’s it has been the site for a community garden. Read a poem by a former Benjamin Franklin School student about her experience in the program.
<table>
<thead>
<tr>
<th>Title</th>
<th>Call number in MMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>73 Skills to Create Your Dream Garden</td>
<td>DVD 01784</td>
</tr>
<tr>
<td>Agriculture: New Career Opportunities for Women</td>
<td>DVD 01767</td>
</tr>
<tr>
<td>Alternative agriculture: food for life</td>
<td>HD1761 .A27 2005 (INTERNET)</td>
</tr>
<tr>
<td>American Farm</td>
<td>DVD 01807</td>
</tr>
<tr>
<td>Bad Seed: The Truth About Our Food</td>
<td>DVD 01802</td>
</tr>
<tr>
<td>Because Food Matters: Does It Matter How Our Food Is Produced?</td>
<td>DVD 01779</td>
</tr>
<tr>
<td>Because Food Matters: Fairtrade: Who Benefits?</td>
<td>DVD 01778</td>
</tr>
<tr>
<td>Because Food Matters: Local or Imported Food: How to Decide?</td>
<td>DVD 01780</td>
</tr>
<tr>
<td>Big Mac under attack</td>
<td>RA645.N87 B53x 2004 (INTERNET) Streaming Video</td>
</tr>
<tr>
<td>Bill Moyers: Michael’s Pollan’s National Food Fight</td>
<td>DVD 01772</td>
</tr>
<tr>
<td>Bill Moyers: Global Hunger</td>
<td>DVD 01434</td>
</tr>
<tr>
<td>Botany of Desire with Michael Pollan, The</td>
<td>DVD 01768</td>
</tr>
<tr>
<td>Bugs for Breakfast: Food &amp; Culture</td>
<td>Video Cstte 04189</td>
</tr>
<tr>
<td>Buy Me That! A Kid’s Guide to Food Advertising</td>
<td>Video Cstte 03501</td>
</tr>
<tr>
<td>Buy Me That! Kid’s Survival Guide to TV Advertising</td>
<td>Video Cstte 03241</td>
</tr>
<tr>
<td>Clean food, organic agriculture</td>
<td>TX369 .C54 2007 (INTERNET) Streaming Video</td>
</tr>
<tr>
<td>Dirt!</td>
<td>DVD 01764</td>
</tr>
<tr>
<td>Does it matter how our food is produced?</td>
<td>DVD 01779</td>
</tr>
<tr>
<td>Eating</td>
<td>DVD 01799</td>
</tr>
<tr>
<td>Edens Lost &amp; Found: Chicago</td>
<td>DVD 01794</td>
</tr>
<tr>
<td>Edens Lost &amp; Found: Los Angeles</td>
<td>DVD 01791</td>
</tr>
</tbody>
</table>
## Resources for Planning Lessons

<table>
<thead>
<tr>
<th>POSTERS</th>
<th>Call Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>TX551.R43 2008</td>
<td>Read it before you eat it! [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>SB320.4.S26 1991</td>
<td>Salad celebration [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>QK711.5.T55 1991</td>
<td>Those amazing plant parts [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>SB113.7.S46 1991</td>
<td>Sensational seeds [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>TX551.F66 2007</td>
<td>Food for a day [picture] : putting it all together</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>RA432.F66 2005</td>
<td>Food + sleep + physical activity = energy [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>RA432.E27 2005</td>
<td>Eat your colors every day [picture] : to stay healthy &amp; fit!</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>RA432.M67 2009</td>
<td>More than mud pies [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>QK711.5.P27 2009</td>
<td>The parts of a plant [picture] : eat healthy - grow healthy</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>SB603.5.A2 2000</td>
<td>27 garden pests at work [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>SB55.G76 2007</td>
<td>Plant a question ... watch it grow! [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>SB454.3.P7 F26</td>
<td>Fall fruit and vegetable planting guide [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>SB188.5.W52 2009</td>
<td>What is a whole grain? = Que es un grano entero? [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>SB457 W547</td>
<td>Where do fruits and vegetables grow? [picture]</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>TX360.U62 O55 2010</td>
<td>What's in season [picture] : Ohio's fresh fruit and vegetable harvest calendar</td>
</tr>
<tr>
<td>3rd Floor Multimedia Posters</td>
<td>HD9005.T46</td>
<td>10 good reasons to buy locally grown [picture]</td>
</tr>
</tbody>
</table>
Brainstorm
Review the NHES and determine how each standard and health related skill are important in promoting and protecting health. Describe how these skills are needed in other subject areas. Finally draw connections to health education skill development to eating healthy and gardening concepts.

Standard 1: Students will comprehend concepts related to health promotion and disease prevention to enhance health.
Other Subjects Connections:
Nutrition Connections:
Gardening Connections:

Standard 2: Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.
Other Subjects Connections:
Nutrition Connections:
Gardening Connections:

Standard 3: Students will demonstrate the ability to access valid information, products, and services to enhance health.
Other Subjects Connections:
Nutrition Connections:
Gardening Connections:

Standard 4: Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.
Other Subjects Connections:
Nutrition Connections:
Potato Tasting
Today’s Outcomes:

• Explored ways to integrate “health literacy” using the curriculum framework for Primary Years Programme (PYP)

• Examined the interrelationships of health education, language arts, science, and mathematics.

• Obtained relevant resources for developing a thematic unit that is tied to a school garden.
Cultivating 21st Century Skills: How School Gardening Enhances Health Literacy

How can you reconceptualize your ideas about the relationship between nutrition and health literacy?

How can we create a meaningful dialog about health literacy, our relationship to food, and the relationship to our bodies?
Resources

Partnership for 21st Century Schools

National Health Education Standards
http://www.cdc.gov/healthyyouth/sher/standards/index.htm

Cleveland State University Library
http://researchguides.csuohio.edu/content.php?pid=297186