

### 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. Ausherman<sup>1</sup>, Dena A. Deglau<sup>2</sup> and Michelle Barton-Verdi<sup>1</sup>, (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. Deglau<sup>1</sup>, Judith A. Ausherman<sup>2</sup>** and **Michelle Barton-Verdi<sup>2</sup>**, (1)University of Maryland, College Park, MD, (2)Cleveland State University, Cleveland, OH



2012 AAHPERD National Convention & Exposition Boston, MA • March 13-17



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

Judith Ausherman, EdD, CHES<sup>1</sup>, Dena Deglau, PhD<sup>2,</sup> and Michelle Barton-Verdi, MS<sup>1</sup>

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

March 14, 2012





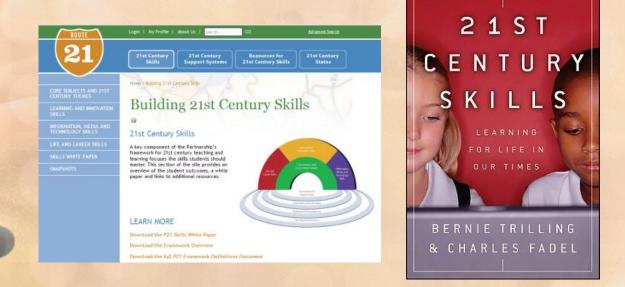
## **Objectives:**

- 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**

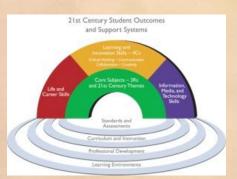
1. What are 21<sup>st</sup> Century Skills?

2. How do we define "health literacy"?



### 21<sup>st</sup> Century Learning and Innovative Skills

Learning and innovation skills increasingly are being recognized as the <u>skills that separate students who are</u> <u>prepared for increasingly complex life</u> and work environments in the 21st century, and those who are not.

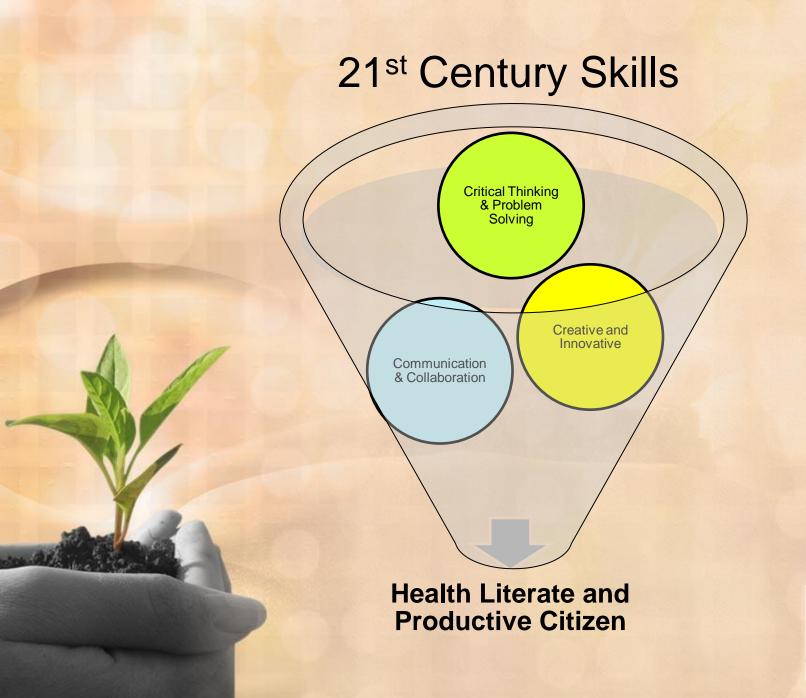


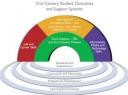
Home > Building 21st Century Skills > Learning and Innovation Skills

# Learning and Innovation Skills

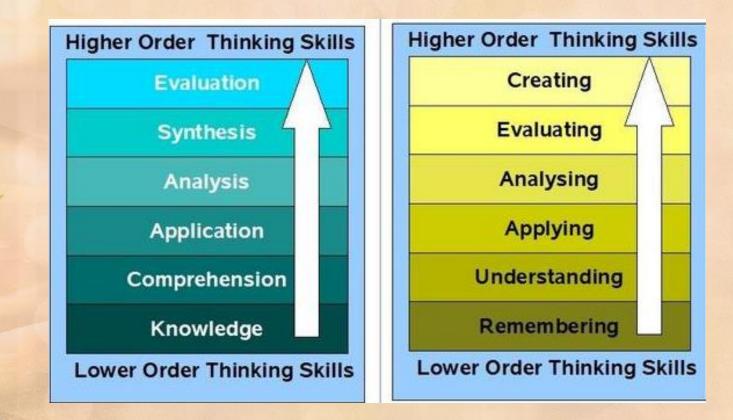
- Critical Thinking and Problem Solving
- Communication & Collaboration
- Creative and Innovative







### 21<sup>st</sup> Century Taxonomy



### **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



21<sup>st</sup>

Century

## 21<sup>st</sup> Century Skills



### **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

# 21<sup>st</sup> Century Skills





### 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

Curriculum and Instruction

rofessional Development

Learning Environments

#### Work Creatively with Others

- Develop, implement and communicate new ideas to others effectivel
- 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



National Health Education Standards

## 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 <u>to use</u> such information and services in ways that are health enhancing.

Joint Committee on National Health Education Standards (2007). *National Health Education Standards: Achieving Excellence*. 2<sup>nd</sup> Edition. Atlanta, GA: The American Cancer Society.

### **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

But nealth 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.

Institute of Medicine Committee on Health Literacy. 2004. *Health Literacy: A Prescription to End Confusion.* Nielsen-Bohlman L, Panzer AM, Kindig DA, Editors. Institute of Medicine. Washington, DC: National Academies Press

# 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

Whole population Whole population Selected individuals through public health selected groups and Patients with high risk patients policy healthy individuals SECONDARY PRIMORDIAL PRIMARY TERTIARY PREVENTION PREVENTION PREVENTION PREVENTION early detection of disease prevent disease well treat established establish or maintain (e.g. Screening & before it develops disease to prevent conditions to minimise Intervention for **Reduce risk factors** detenoration hazards to health Pre diabetes)

exerciseismedicine.org.au

Health Education focuses on primary prevention.

Medical Education focuses on secondary and tertiary prevention.

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PARTNERSHIP FOR 21ST CENTURY SKILLS



## overview

Skills Framework

P21 FAQ

Use of P21 Content

#### Home → Overview → Skills Framework

#### 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 <u>to use</u> such information and services in ways that are health enhancing.

Joint Committee on National Health Education Standards (2007). *National Health Education Standards: Achieving Excellence*. 2<sup>nd</sup> Edition. Atlanta, GA: The American Cancer Society.

### 21<sup>st</sup> 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 <u>preventive</u> physical and mental health measures, including proper diet, nutrition, exercise, risk avoidance and stress reduction
- Using <u>available information</u> to make appropriate health-related decisions
- Establishing and monitoring personal and family health goals
- Understanding national and international public health and safety issues

## 21<sup>st</sup> 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)

21st Century Student Outcomes and Support Systems



### How to Integrate Concepts

- National Health Education Standards
- Health Education Curriculum Analysis Tool
- International Baccalaureate School Curriculum
   Primary Years Programme (PYP)

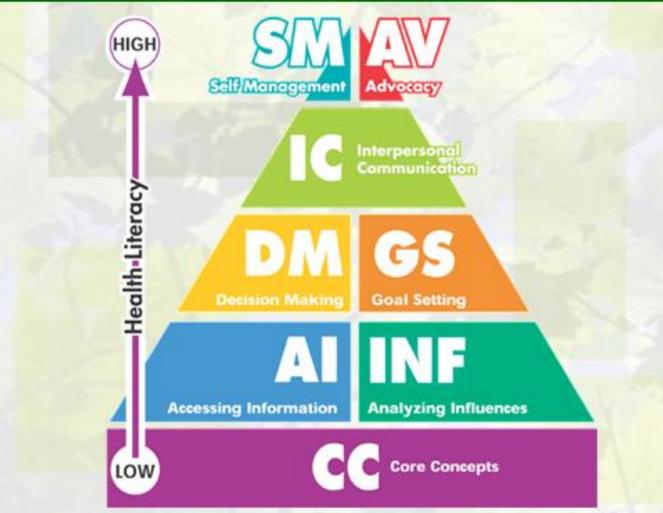
### National Health Education Standards: Standard 3 Students will demonstrate the ability to access valid information, products, and services to enhance health.

|  |                              | CDC Home Search                                    | Health Topics A-Z  |   |
|--|------------------------------|--|--|---|
| SAFER • HEALTHIER • PEOPLE<br>GENTE•SEGURA•SALUDABLE *                             |                              | for Chronic Disease Prevention and Healt<br>Youth! | th Promotion   |   |
| Healthy Youth  | CDC's Schoo                  | Health Education Resources (SHE                    | ER)  |   |
| CDC's Cabaal Maalth  | NHES: S                      | andard 3   |  |   |
| CDC's School Health<br>Education Resources<br>(SHER)                               | Demonstrat                   | e the ability to access valid info                 | ormation, products, and services to enhance he   | alth.                                   |
| <u>National Health</u><br><u>Education</u><br><u>Standards</u>                     | and treatmen<br>sources. App | t of health problems. This standard                | d health-promoting products and services is critical in the<br>focuses on how to identify and access valid health reso<br>parison, and evaluation of health resources empowers s | ources and to reject unproven           |
| <u>Characteristics of</u><br><u>Effective Curricula</u><br><u>Frequently Asked</u> | literacy. Performance        | Indicators*—Health Education S                     | Standard 3   |   |
| Questions  | Pre-K-Grade                  | 2  |  |   |
| [[[[[[[[[[[[[]   | 3.2.1                        | Identify trusted adults and profes                 | sionals who can help promote health.   |   |
| Contact Us   | 3.2.2                        | Identify ways to locate school and                 | d community health helpers.  |   |
|  | Grades 3-5<br>3.5.1<br>3.5.2 |  | ealth information, products, and services.<br>ool, and community that provide valid health informatior   |   |
|  | Grades 6-8                   |  |  | National Health                         |
|  | 3.8.1                        | Analyze the validity of health info                | rmation, products, and services.   | <ul> <li>Education Standards</li> </ul> |
|  | 3.8.2                        | Access valid health information fro                |  | I Description of a state state          |
|  | 3.8.3                        | Determine the accessibility of proc                |  | -                                       |
|  | 3.8.4                        | Describe situations that may requi                 | •  | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1   |
|  | 3.8.5                        | Locate valid and reliable health pr                | oducts and services.   |   |
|  |                              |  |  |   |

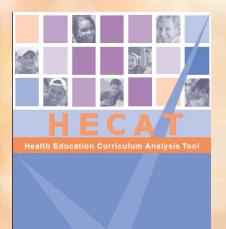
## Health Education Standards: Health Literacy

- Focuses on health literacy in standard #3;
- National Health Education Standards include <u>performance</u> <u>indicators</u> by grade levels that assesses what students know and are able to do;
- Need to ask students to show <u>how</u> they know health education (and not just show <u>that</u> they know);
- What would those behaviors look like?

## National Health Education Standards



Retrieved from: The Health Education Assessment Project (HEAP) http://toucaned.com/HEAP/



**ODC** 

## **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?

### HECAT: Module HE HEALTHY EATING CURRICULUM

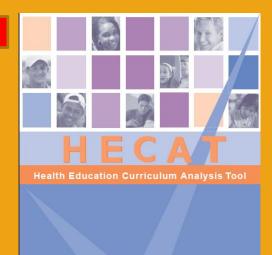
Description: This module contains the tools to analyze and score curricula that are intended to promote healthy eating, sound nutrition, and healthy dietary practices.

#### Healthy Behavior Outcomes

#### A pre-K–12 healthy eating curriculum should enable students to

- Eat a variety of whole grain products, fruits and vegetables, and fat-free or low-fat milk or equivalent milk products every day.
- Eat the appropriate number of servings from each food group every day.
- Choose foods that provide ample amounts of vitamins and minerals.
- Eat the appropriate amounts of foods that are high in fiber.
- Drink plenty of water.
- Limit foods and beverages high in added or processed sugars.
- Limit the intake of fat, avoiding foods with saturated and trans fats.
- Eat breakfast every day.
- Eat healthy snacks.
- Eat healthy foods when dining out.
- Prepare food in healthful ways.
- Balance caloric intake with caloric expenditure.
- Follow a plan for healthy weight management.

How could a school garden improve a pre-K-12 healthy eating curriculum?





## Cleveland State University's Partnership and Engaged Learning Focus

### Campus International School

A partnership between Cleveland State University and the Cleveland Metropolitan School District



|  | Home | About Us | Calendar | Lunch Menu | Newsletter | Parents | Staff | IB | Mandarin | Contact Us |
|--|------|----------|----------|------------|------------|---------|-------|----|----------|------------|
|--|------|----------|----------|------------|------------|---------|-------|----|----------|------------|

#### A Message From the Principal



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 web site and feel free to contact me at Julie.A.Beers@cmsdnet.net if you have any questions regarding the school. Julie Beers Principal

## **CSU & CIS Connection**



### VOL: I No. 15 February 17, 2011 Engaging in Exploration. Growing A Garden Go Vikings Dr. Judy Auschermann of CSU has recently secured a grant for CIS which will help pay for a New unit 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!

How the World Works "The World is Amazing"

### 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
- 2011

2012

- 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)

## What are the Connections

### IB learners strive to be:

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

| What do we want to know about science and technology?<br>Programme of inquiry |   |  |
|---|---|--|
| Living things:  | The study of humans and other animals, plants, and the environment and the interactions between them. |  |
| Ourselves<br>Animals<br>Plants  |   |  |
| Earth and space:  | The study of the planet earth and its relationship to the universe.                                   |  |
| Water<br>Land<br>Atmosphere<br>Space  |   |  |
| Materials and matter:   | The study of the origins, properties and uses of natural and human-made solids, liquids and gases.    |  |
| Gases<br>Liquids<br>Solids  |   |  |

| pe                              | What do we want to know about<br>ersonal, social and physical education?<br>Programme of inquiry   |
|---------------------------------|--|
| Personal education:             | Personal education is the study of the growth of the individual in respect to emotions,<br>self-concept and moral values.  |
| Self concept:                   | <ul> <li>The development of an awareness of one's own feelings and behaviour. Learning strategies<br/>for coping with, communicating about, and managing feelings.</li> </ul>  |
| 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:                         | <ul> <li>The development of safe behaviour practices to be used in the home, school and<br/>community.</li> </ul>  |
| Organization for<br>learning:   | <ul> <li>The development of an awareness of strategies by which to become a successful learner,<br/>including the adoption of a positive attitude toward responsibilities. The making of<br/>independent choices in relation to learning and those with whom one works.</li> </ul> |
| Social education:               | Social education is the study of the growing interaction of the individual within his/her family,<br>learning community and society, and the world at large.   |
| Cultural<br>understanding:      | <ul> <li>The study and acceptance of cultural, racial, and religious similarities and differences.</li> </ul>  |
| Interaction with others:        | <ul> <li>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.</li> </ul>  |
| Environmental<br>understanding: | <ul> <li>The development of an appreciation for the environment and the need to reflect and act on<br/>our responsibilities towards it.</li> </ul>   |



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- Obtain relevant resources for developing a thematic unit that is tied to a school garden.



Pigs. I like Pigs. Count their tails. 123456//



Bugs craw in the golder How many bugs do you see? 1234567 No bugs on med

## overview

Home + Overview + Skills Framework

#### 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

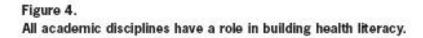
In addition to these subjects, we believe schools must move beyond a focus on basic competency in core subjects to promoting understanding of academic content at much higher levels by weaving **21st century interdisciplinary themes** into core subjects:

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

Retrieved from http://www.p21.org/overview/skills-framework/57

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



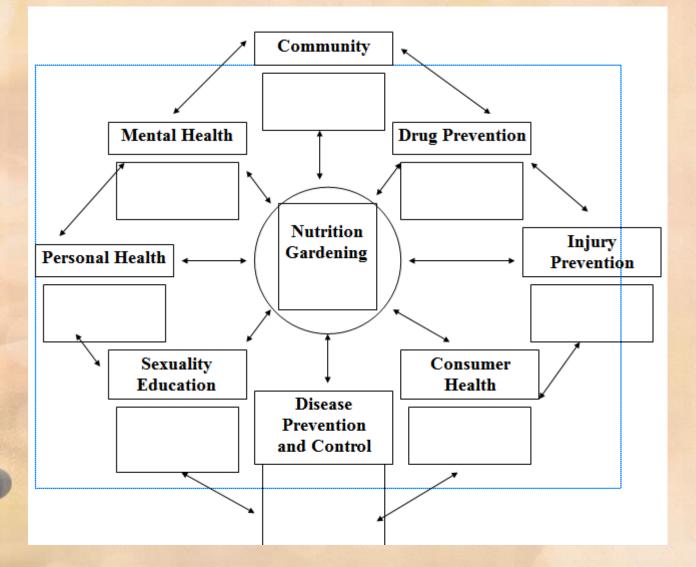


Retrieved from Role of 21st Century Schools in Promoting Health Literacy

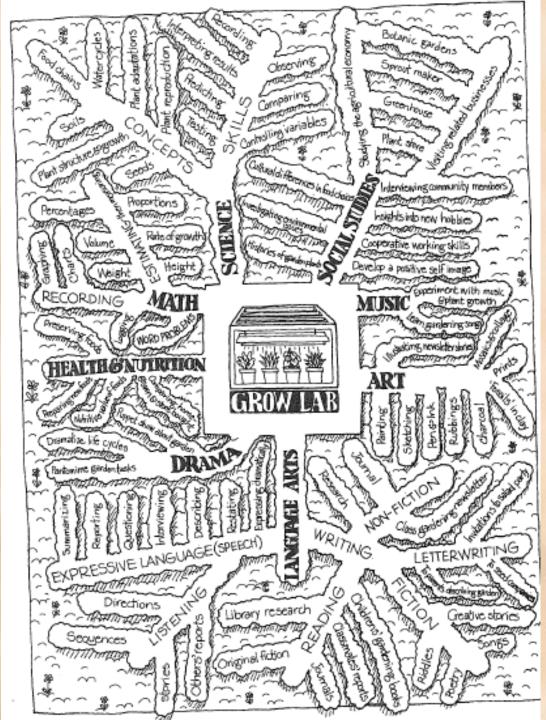
## Integration of School Gardens



### **Connection to Other Health Concepts**







## Integrating The Garden Into Your Curriculum

### **Reading & Health**

- Both fiction and non-fiction books focus on garden related subjects
- Gardens can incorporate a <u>health</u> 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:**

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### Integrative Approach to Teaching Health Education



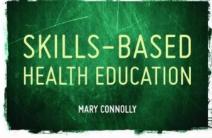
### National Health Education Standards



Douglas | Nancy FISHER | FREY

CHECKING for Understanding healthy foods from healthy soils

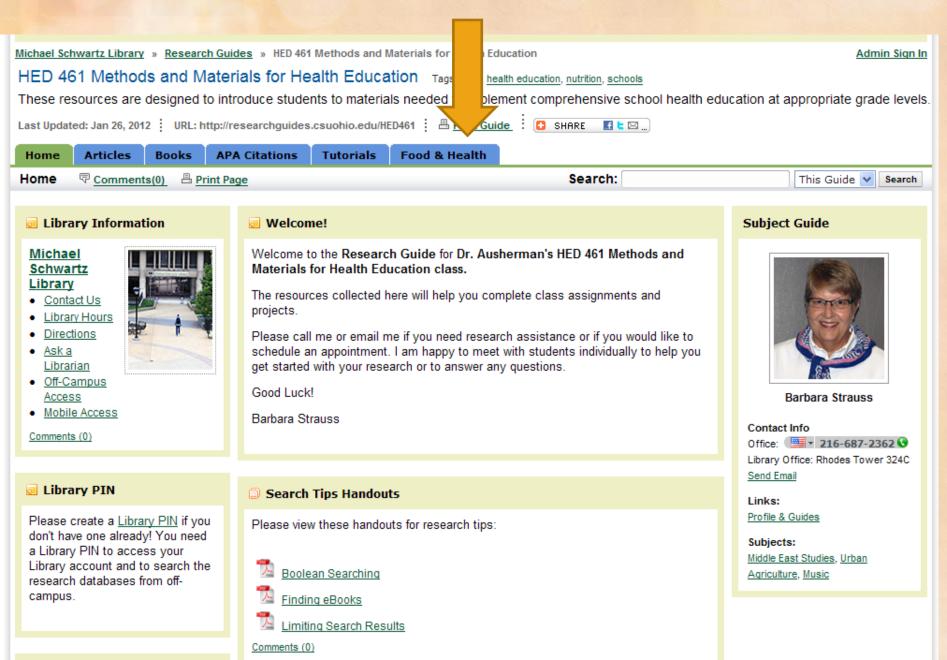
LIZABETH PATTEN and KATHY LYONS

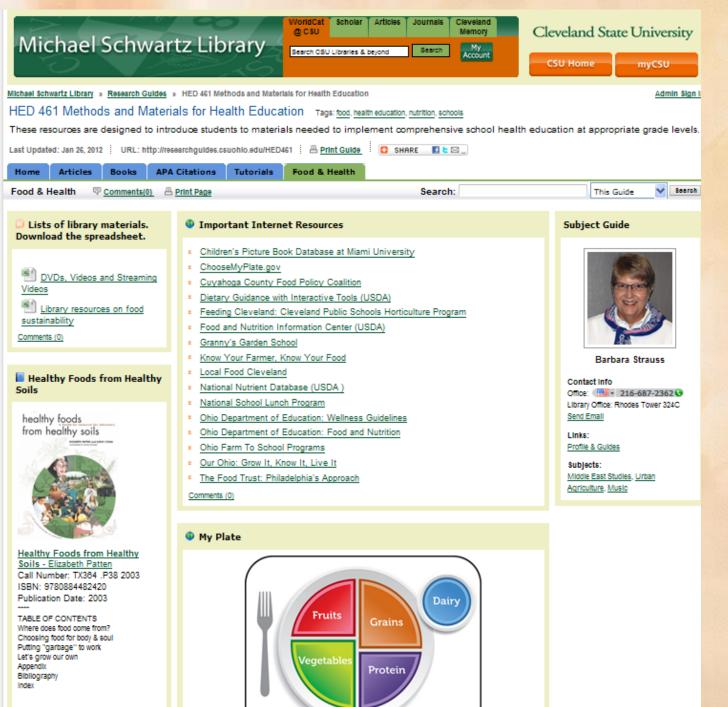






### **CSU Library Resources**





### Library Resources

**Cleveland State University Libraries present** 

### the Cleveland Memory Project

:: Advanced Image Search

Find Image

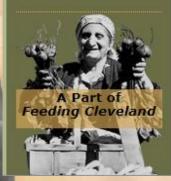
GO

engaging our students & community to improve the civic life of Northeast Ohio HOME <sup>11</sup> BROWSE WEB EXHIBITS <sup>11</sup> READ E-BOOKS <sup>11</sup> OUR DONORS <sup>11</sup> ORDER PRINTS <sup>11</sup> CONTACT US

Feeding Cleveland: Urban Agriculture

#### Digging a Little Deeper...

- Commercial Greenhouses
- Work Relief Gardens
- Victory Gardens
- Cleveland Public Schools Horticulture Program
- Community Gardens
- Market Gardens
- References & Resources
- Site Acknowledgements
- Feeding Cleveland: Urban Agriculture Photo Exhibit



#### 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 <u>working men's</u> <u>farms</u> during the Great Depression, the <u>victory gardens</u> during World War II, <u>community gardens</u> established during the years of urban renewal, and the present day <u>market gardeners</u> 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 <u>Cleveland Public Schools Horticulture</u> <u>Program</u> (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 <u>farming acreage under</u> <u>glass</u>. (Rose, 1950)



Cleveland Public School students Marcella Rickets (left) & Irvina Knight (right), July 1929. View image

Source: http://www.clevelandmemory.org/urbag/index.html

### Gardens in Public Schools 1907

**Cleveland State University Libraries present** 

the Cleveland Memory Project

engaging our students & community to improve the civic life of Northeast Ohio HOME <sup>11</sup> BROWSE WEB EXHIBITS <sup>11</sup> READ E-BOOKS <sup>11</sup> OUR DONORS <sup>11</sup> ORDER PRINTS <sup>11</sup> CONTACT US

### Digging a Little Deeper...

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### Feeding Cleveland: Urban Agriculture

### **Cleveland Public Schools Horticulture Program**



dressed in sailor or midi shirts. View image.

An article in the Sunday Plain Dealer dated, March 24, 1907, titled <u>"Gardens in the Heart of</u> <u>the City"</u> 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) "<u>Gardens in the Cleveland Public Schools</u>" written by then Supervisor of School Gardens, Paul R. Young, is a snapshot of the program as it existed in the post-WWII years.

Find Images

:: Advanced Image Search

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 <u>science curriculum for fourth graders at</u> <u>Benjamin Franklin Elementary School</u>. Since the 1980's it has been the site for a community garden. <u>Read a poem</u> by a former Benjamin Franklin School student about her experience in the program.

### Access Information to Plan

| 1  | Food and Health  |                                |                 |
|----|--|--------------------------------|-----------------|
| 2  | DVDS and Video Cassettes in the Michael Schwartz Library       |                                |                 |
| 3  |  |                                |                 |
| 4  | Title  | Call number in MMS             |                 |
| 5  | 73 Skills to Create Your Dream Garden                          | DVD 01784                      |                 |
| 6  | Agriculture: New Career Opportunities for Women                | DVD 01767                      |                 |
| 7  | Alternative agriculture: food for life                         | HD1761 .A27 2005 (INTERNET)    | Streaming Video |
| 8  | American Farm  | DVD 01807                      |                 |
| 9  | Bad Seed: The Truth About Our Food                             | DVD 01802                      |                 |
| 10 | Because Food Matters: Does It Matter How Our Food Is Produced? | DVD 01779                      |                 |
| 11 | Because Food Matters: Fairtrade: Who Benefits?                 | DVD 01778                      |                 |
| 12 | Because Food Matters: Local or Imported Food: How to Decide?   | DVD 01780                      |                 |
| 13 | Big Mac under attack   | RA645.N87 B53x 2004 (INTERNET) | Streaming Video |
| 14 | Bill Moyers: Michael's Pollan's National Food Fight            | DVD 01772                      |                 |
| 15 | Bill Moyers: Global Hunger                                     | DVD 01434                      |                 |
| 16 | Botany of Desire with Michael Pollan, The                      | DVD 01768                      |                 |
| 17 | Bugs for Breakfast: Food & Culture                             | Video Cstte 04189              |                 |
| 18 | Buy Me That! A Kid's Guide to Food Advertising                 | Video Cstte 03501              |                 |
| 19 | Buy Me That! Kid's Survival Guide to TV Advertising            | Video Cstte 03241              |                 |
| 20 | Clean food, organic agriculture                                | TX369 .C54 2007 (INTERNET)     | Streaming Video |
| 21 | Dirt!  | DVD 01764                      |                 |
| 22 | Does it matter how our food is produced?                       | DVD 01779                      |                 |
| 23 | Eating   | DVD 01799                      |                 |
| 24 | Edens Lost & Found: Chicago                                    | DVD 01794                      |                 |
| 25 | Edens Lost & Found: Los Angeles                                | DVD 01791                      |                 |

## **Resources for Planning Lessons**

#### POSTERS

| 3rd Floor Multimedia Posters | TX551.R43 2008     | Read it before you eat it! [picture]                              |  |
|------------------------------|--------------------|---|--|
| 3rd Floor Multimedia Posters | LB3473 .F79 2004   | Fruits & vegetables galore [kit] : helping kids eat more          |  |
| 3rd Floor Multimedia Posters | SB320.4 .S26 1991  | Salad celebration [picture]                                       |  |
| 3rd Floor Multimedia Posters | QK711.5 .T55 1991  | Those amazing plant parts [picture]                               |  |
| 3rd Floor Multimedia Posters | SB113.7.S46 1991   | Sensational seeds [picture]                                       |  |
| 3rd Floor Multimedia Posters | TX551.H69 2007     | How much do you eat? [picture]                                    |  |
| 3rd Floor Multimedia Posters | TX551.F66 2007     | Food for a day [picture] : putting it all together                |  |
| 3rd Floor Multimedia Posters | RA432 F66 2005     | Food + sleep + physical activity = energy [picture]               |  |
| 3rd Floor Multimedia Posters | RA432 E27 2005     | Eat your colors every day [picture] : to stay healthy & fit!      |  |
| 3rd Floor Multimedia Posters | RA432 .M67 2009    | More than mud pies [picture]                                      |  |
| 3rd Floor Multimedia Posters | QK711.5 P27 2009   | The parts of a plant [picture] : eat healthy - grow healthy       |  |
| 3rd Floor Multimedia Posters | SB603.5 .A2 2000   | 27 garden pests at work [picture]                                 |  |
| 3rd Floor Multimedia Posters | SB55 .G76 2007     | Plant a question watch it grow! [picture]                         |  |
| 3rd Floor Multimedia Posters | SB454.3.P7 F26     | Fall fruit and vebetable planting guide [picture]                 |  |
| 3rd Floor Multimedia Posters | SB188.5.W52 2009   | What is a whole grain? = Que es un grano entero? [picture]        |  |
|                              |                    | Fuel up! [picture] : You've got choices. Give your body the right |  |
| 3rd Floor Multimedia Posters | TX361.C5 F9 2005   | fuel  |  |
| 3rd Floor Multimedia Posters | SB457 W547         | Where do fruits and vegetables grow? [picture]                    |  |
|                              |                    | What's in season [picture] : Ohio's fresh fruit and vegetable     |  |
| 3rd Floor Multimedia Posters | TX360.U62 O55 2010 | harvest calendar  |  |
| 3rd Floor Multimedia Posters | HD9005 .T46        | 10 good reasons to buy locally grown [picture]                    |  |

### **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.

Review the HECAT and determine how each standard and health related skill are important in promoting and protecting health. Also, 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 21<sup>st</sup> Century Schools http://www.p21.org/index.php

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



