

## Lesson #1 Just Tastes So Local

### Overview:

Students will learn what vegetables are found in a typical Connecticut garden and how to prepare to begin one of their own.

### Objectives:

This lesson is designed for students to gather a recognizable connection between the food they eat and the way it is grown. Students will gain basic knowledge of the nutritional value of the vegetables harvested locally.

<b>Key Concepts:</b> Food Pyramid, Organic Gardening, Vegetable recognition, Food miles
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<b>Subjects:</b> Social Studies, Biology, Ecology, Geography, Botany, etc.
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<b>Duration:</b> 1 class periods (40 minutes)
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<b>Setting:</b> In the classroom
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<b>Season:</b> Spring
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<b>Interdisciplinary Connections</b>
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Produced by the Graduate Students in  
Environmental Education EVE 546 Spring 2009



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### Introduction (background):

Most people get their vegetables from their local grocery store. However, a growing number of people choose to plant their own, working the soil for many weeks in order to eat food that they are more familiar with. These people are gardeners and over the next few weeks you will learn how to build, plant, water, cultivate, and harvest food from your own garden.

### Materials:

Hand outs that show various garden sizes and typical local vegetables grown.

Access to computer lab for in class research

2 tape measures

10 feet of string to see the footprint of different size gardens

### Engagement-Opening or Essential Question:

Engage:

Ask class if they have ever gardened before?

Do they have a garden at home?

If so have they helped with that garden?

If not where do they get their vegetables from?

How do plants grow? What do they need?

What plants/vegetables did Native Americans typically grow? How about European settlers?

### Exploration:

Explain:

- Show pictures of Cove River Site (or school ground area you plan to garden)
- Provide a brief history of the Cove River Site (or comparable garden plot area)
- Show students pictures of the vegetables they will be growing. Explain how some food is grown on large agricultural farms, on local family farms, and on private gardens.
- Inform students that they will be assigned a vegetable to research, plant, cultivate, and harvest.
- Show different types of private gardens from tiny windowsill planters to small backyard raised beds, to large community gardens.
- Explain food miles.
- Explain the difference between synthetic farming/gardening and composting
- Explain natural biotic pest controls that occur with high biodiversity and the necessity to synthetically provide protection on monoculture systems.

***Elaborate:***

- *Have students find two different examples of vegetable harvesting in Southern Connecticut.*

***Evaluate:***

*Students should be able to recognize and identify the different methods used to grow vegetables. A gardening journal will be passed out to be kept during this unit. Prior to lesson one students will be asked the essential question and document their answers. After lesson one students will record how their perception of how vegetables are grown has changed; if at all.*

## Lesson #2 Working the Dirt

### Overview:

Students will learn how to design a garden and begin to prepare it for planting. They will gain and understanding of the water cycle and how it is important to the survival of their food.

### Objectives:

This lesson is designed for students to learn the skill of preparing a garden, planting food, and maintaining it once it is planted.

<b>Key Concepts:</b> Garden design, food cultivation, water cycle, chemical identification, composting
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<b>Subjects:</b> Chemistry, Biology, Ecology, Geography, Botany, Technical Education, etc.
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<b>Duration:</b> 4 class periods (160 minutes)
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<b>Setting:</b> Classroom and Cove River
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<b>Season:</b> Spring-Summer
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<b>Interdisciplinary Connections</b>
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### Introduction (background):

Native Americans and early European settlers did not have the means to turn on a faucet and water their vegetables. They had to learn about seasonal changes, water quality, and efficient usage of irrigation.

### Materials:

Test kits, sink float test, salinity tests, water jugs, pre dug garden plot, hoes, shovels, gloves,

### Engagement-Opening or Essential Question:

#### Engage:

Ask students to look at the east and western river of Cove River site. Can they identify any differences? Vegetation differences? Clarity? Speed?

What do vegetables need to successfully grow? Will they grow if there is salt in the water? Ask the students where they would place a garden on the site?

Can anyone spot where the old homestead and gardens were?

#### Exploration:

#### Explain:

Explain cultivation. Explain planting timeline. When do we start planting our gardens outside? Explain frost.

How do we start our plants (inside classroom lesson-each kid get a small paper cup, soil, and seed and grows "their" plant for the cove river garden.)

Plants need sunlight for photosynthesis. This helps give the earth oxygen (which we like!). Explain how to begin composting and why it is useful. What is it (naturally occurs in nature everyday, leaves, dead bugs, animals, plants, etc)?

How do we compost for our cove river garden? Why are synthetic pesticides, fertilizers, and herbicides not the best way to garden?

Where we would be getting water from to sustain cove river garden. Explain how on the western side of the site fresh water makes it way to the ocean and on the west the cove river is larger and has brackish water (explain about tides rising twice daily and pushing up the river to mix with fresh water. Mixing of fresh and salt equals brackish)

Explain how to use water quality test kits.

***Elaborate:***

*Separate class into groups. Hand out the water test kits and show them where they will take their samples from.*

*Sample for salinity and water clarity.*

*Have students log where the best place to gather water for the garden will be.*

*Identify where the garden will go (site should be pre dug)*

*Have students design the garden into sections for separate vegetables.*

*Have students refer to their research to find out how spaced their seedlings should be.*

*Supervise the planting of the class seedlings.*

*Build and area for your compost pile.*

***Evaluate:***

*Students will be evaluated based upon their commitment to growing and harvesting their vegetable, their journal recordings, and their vegetable research. A test to complete the lesson should be administered to evaluate basic understanding of historical farming techniques, current techniques, early types of food harvested, and the plant cycle.*

## Lesson #3 Food for Friends

### Overview:

Community service lesson, Community Supported Agriculture (CSAs), co-op's, food banks. lesson (trip/school for reflection lesson conclusion)

### Objectives:

This lesson is designed for students to gather a recognizable connection between the food they eat and the way it is grown. Students will gain basic knowledge of the nutritional value of the vegetables harvested locally.

<b>Key Concepts:</b> Food Pyramid, Organic Gardening,
<b>Subjects:</b> Social Studies, Biology, Ecology, Geography, Botany, etc.
<b>Duration:</b> 1 class periods (40 minutes)
<b>Setting:</b> In the classroom
<b>Season:</b> Spring
<b>Interdisciplinary Connections</b>



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### Materials:

Hand outs that show various garden sizes and typical local vegetables grown.  
Access to computer lab for in class research  
2 tape measures  
10 feet of string to see the footprint of different size gardens

### Engagement-Opening or Essential Question:

#### Engage:

Show pictures of Cove River Site (or school ground area you plan to garden)  
Ask class if they have ever gardened before?  
Do they have a garden at home?  
If so have they helped with that garden?  
If not where do they get their vegetables from?  
How do plants grow? What do they need?  
What plants/vegetables did Native Americans typically grow? How about European settlers?

### Exploration:

#### Explain:

#### Elaborate:

The class will then return to the Cove River site or school garden area to plant their vegetable. Based on their in-classroom measurements and computer research, students should calculate how long it will take before harvest. During this time they can select what food bank they would like to work the community service aspect of the lesson with. They can draft a letter collectively or email and inform the bank of their work.

#### Evaluate:

Students will be evaluated based upon their commitment to growing and harvesting their vegetable, their journal recordings, and their vegetable research. A test to complete the lesson should be administered to evaluate basic understanding of historical farming techniques, current techniques, early types of food harvested, and the plant cycle.