



EDUC267G: Integrating the Garden into the Elementary Curriculum

Pre-fall-spring

2017-2018

1 unit

Instructors: Ruth Ann Costanzo, Jesse Cool & Drew Harwell
Office: CERAS 307
Office Phone: 650-996-0533
Instructor Email: ruthannc@stanford.edu

Course Description

This mini-course uses the garden and kitchen environments to provide teacher candidates with real-world contexts in which to explore some of the key issues that children face in health, nutrition, and sustainability. Sessions occur once a quarter and center on a particular theme and subject matter. Teacher candidates will gain an understanding of how to integrate the various themes with content areas and standards. They will also gain an appreciation for the importance of addressing children's health needs in an era when the country is facing increased obesity and other health problems in young children by learning the skills needed to support a garden project and cook the food grown. Teacher candidates will leave the course with ideas and models on how to continue this type of work at their own school sites. The course, which primarily takes place in the garden, serves as a metaphor for teacher candidates' growth over the course of the year as they learn to become educators.

Sessions at a glance

Session/Date/Time	Theme/Topics	Subject Matter Focus
Session 1 - summer AUGUST 25 11am-12:30pm	Planting the Seeds of Change - Intro to benefits of garden programs - Children's nutrition - Importance of fruits and vegetables	Mathematics
Session 2 - autumn OCTOBER 20 10am-12:30pm	Living History - Gardening with heritage seeds - Ohlone Indians	Social Studies
Session 3 - winter FEBRUARY 23 10am-12:30pm	Gardening in a container, cooking in a pot - Medicinal herbs - Health	Science/Health
Session 4 - spring JUNE 8 8am-12:30pm	Bring it Back Home - Site visits - Lunch at the garden	Integrated curriculum

Course Expectations

This is a course designed to help you learn both practical skills in planting, gardening, and cooking, along with teaching skills in integrating standards with real-life contexts. As such, attendance of the four class sessions is expected. Teacher candidates should be prepared to participate in the various rotations that will help with acquisition of this knowledge. If you must miss a class for any reason, please notify the lead instructor prior to the class via email.

Final Assignment - due date: JUNE 8

Teacher candidates will complete a final lesson plan or unit (1-3 lessons) utilizing knowledge gained from the three garden sessions. Teacher candidates have the option to teach the lesson or unit during their independent student teaching week. Teacher candidates will identify a subject area or areas on which to focus, choose standards to address in a lesson or unit, identify materials needed, outline the lesson, and select an assessment.

Session Details

Session 1: Planting the Seeds of Change

In this session, we will spend time learning about the beginning stages of growing a garden and observing the garden in the summer season. We will also investigate the ways that mathematics might be integrated with the garden.

Standards Focus: CA Mathematics Standards:

Grade 2: Measurement 1.3 - Measure the length of an object to the nearest inch and/or centimeter

Grade 3: Number Sense 3.0 - Students understand the relationship between whole numbers, simple fractions, and decimals

Grade 4: Geometry 1.0 - Students understand perimeter and area

Grade 5: Geometry 1.0 - Students understand and compute the volumes and areas of simple objects.

Suggested Reading(s) & Resource(s):

How to Grow More Vegetables: Than You Ever Thought Possible on Less Land Than You Can Imagine by John Jeavons

Session 2: Living History

In this session, we will observe the changes that have occurred in the garden from summer to autumn. We will learn about the old ways of gardening, preserving, and preparing for the winter. We will learn about the Ohlone Indians and the ways that they used heritage seeds in their daily lives through integration of the Social Science standards.

Standards Focus: CA Social Science Standards:

Grade 3: History – Social Science 3.2 – Students describe the American Indian nations in their local region long ago and in the recent past

Grade 4: History – Social Science 4.2.1 – Discuss the major nations of California Indians, including their geographic distribution, economic activities, legends and religious beliefs; and describe how they depended on, adapted to, and modified the physical environment by cultivation of land and use of sea resources

Grade 5: History – Social Science 5.1 – Students describe the major pre-Columbian settlements, including the cliff dwellers and pueblo people of the desert Southwest, the American Indians of the Pacific Northwest, the nomadic

nations of the Great Plains, and the woodland peoples east of the Mississippi River.

Suggested Reading(s) & Resource(s):

Renewing America's Food Traditions: Saving and Savoring the Continent's Most Endangered Foods by Gary Nabhan

Session 3: Gardening in a Container

This session will be used to facilitate understanding of the way the seasons impact the garden and the structures used for gardening. Teacher candidates will gain practical skills in learning how to use containers in the winter. We will also explore issues of health and the role of medicinal herbs in promoting health.

Standards Focus: CA Science & Health Standards:

Grade 2: Life Sciences 2 – Plants and animals have predictable life cycles.

Grade 2: Earth Sciences 3c – Students know that soil is made partly from weathered rock and partly from organic materials and that soils differ in their color, texture, capacity to retain water, and ability to support the growth of many kinds of plants

Grade 3: Life Sciences 3a – Students know plants and animals have structures that serve different functions in growth, survival, and reproduction

Grade 4: Life Sciences 2a – Students know plants are the primary source of matter and energy entering most food chains

Grade 5: Life Sciences 2f – Students know plants use carbon dioxide and energy from sunlight to build molecules of sugar and release oxygen

Suggested Reading(s) & Resource(s):

“A School Garden in Containers” by Drew Harwell

Session 4: Bringing It Back Home

In this last session, we will visit several Bay Area school garden projects. We will learn about the effect that resources have on starting and sustaining gardens at your own school sites. In observing the changes in the garden due to spring, we will also revisit the theme of sustainability.

Standards Focus: Integrated Curriculum:

Grade 3: History – Social Science 3.2.2 – Discuss the ways in which physical geography, including climate, influenced how the local Indian nations adapted to their natural environment (e.g., how they obtained food, clothing, tools)

Suggested Reading(s) & Resource(s):

Hungry Planet: What the World Eats by Peter Menzel & Faith D'Aluisio