

THE CONSCIOUS KITCHEN GARDEN & NUTRITION CURRICULUM

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Dear Teacher, Garden Educator, Garden Champion,

We are very excited that you are looking at our Conscious Kitchen Program as a model of sustainable food and school wide health.

The following curriculum is a culled collection of lessons that we have assembled to teach the tenants of sustainable food pathways. Rather than reinventing the wheel, we have pulled, taught, and tested lessons from an array of institutions such as Life Lab, Edible Schoolyard, and The Food Project.

Our school, as all schools, has particulars that inform the type of lessons included here. Our school is small, with one classroom per grade. The lessons are taught weekly over a trimester by a garden teacher, not the classroom teacher, in our small farm, which serves as a production space as well as outdoor classroom.

All of the included lessons were chosen because they have solid components that are hands on, with student led activities that promote high engagement and interest. There is virtually no lecture style instruction, as it is our sincere belief that the instructor should do as little talking as possible. The garden teacher is there to organize materials and set the ground rules, and the students are the leaders, investigators, and scientists.

Not all of the lessons here work for our purposes in their entirety. There are many extensions, follow up research, and long term projects that would be really interesting to do with kids, but would require more time than we currently are allowed. Thus we have organized the program as a collection of individual lessons that build on student knowledge throughout the trimester.

Please feel free to use this as it works for you, your students, and school. And please reach out with questions, comments, or how you are making the program work for you. We'd love to hear from you!

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GARDEN BASICS

GOALS:

Students are introduced to guidelines for behavior in the garden, as well as their role as stewards and scientists. They begin to understand the components of a healthy garden ecosystem, including soil health, plant parts, pollinators, and weed control.

GUIDING QUESTIONS:

- 1. What do we need to do to be safe and productive in the outdoor classroom?
- 2. How do we know that the plants are healthy?
- 3. What do plants need to survive?
- 4. What makes healthy soil? What is the best soil for growing food?
- 5. What are the pollinators in our garden? Why do we need them?

ACTIVITIES:

- 1. Six of One, Half Dozen of the Other (The Growing Classroom) Students are introduced to the garden during a observational exercise. They collect samples from the garden in an interactive guessing game.
- 2. Six Plant Parts (Hidden Villa) Students learn and then harvest the six plant parts from the garden and make a "gar den burrito."
- 3. Space Travelers (The Growing Classroom) Students collect soil samples from the garden and then categorize soil components.
- 4. Pollinators on the Move (Botanical Garden of Georgia) Students search the garden for pollen and evidence of pollinators.
- 5. Tool Safety (NY Botanical Garden) Students review garden safety rules, and then brainstorm guidelines for working with tools. Students then practice by harvesting/preparing beds/planting.

RESOURCES:

The Growing Classroom: Six of One, Half Dozen of the Other

<u>Hidden Villa: Six Part Plants</u>

The Growing Classroom: Space Travelers

Botanical Garden of Georgia: Pollinators on the Move

New York Botanical Garden



FRESH FOOD

GOALS:

Students understand that processed foods require more energy and are typically less nutritious for our bodies than whole foods.

GUIDING QUESTIONS:

- 1. What are real foods?
- 2. Why would we want to eat fresh, whole foods?
- 3. What changes when foods are processed?
- 4. How do foods get to consumers?

ACTIVITIES:

- 1. Eat Real (The Food Project) Students use excellent food cards to explore how whole foods are changed and processed.
- 2. Food (The No Impact Project) Students write down all the foods they ate in their last meal at home. The class information is shared out and then categorized according to amount of processing.
- 3. Farm to Table and Beyond (Columbia) Students create a farm to table diagram that illustrates how common foods get to consumers. Instructors could scaffold this for younger grades by pre drawing the starting and finishing images on the chart paper.
- 4. The Wind Blows Food Systems (Edible Schoolyard) Students are introduced to the concepts of consumers and producers and then play a musical chairs style game with fact cards that provide information about our modern food system.

RESOURCES:

The Food Project: Eat Real

The No Impact Project: Food

Columbia University: Farm to Table and Beyond

Edible Schoolyard: The Wind Blows Food Systems



LOCAL FOOD

GOALS:

Students investigate food pathways, discovering the difference between locally produced and internationally grown fruits and vegetables. Students understand the ecological impact of choosing one over the other.

GUIDING QUESTIONS:

- 1. Where does our food come from?
- 2. Have you ever picked food right off the plant and eaten it?
- 3. What are the advantages of eating food that is grown close by?
- 4. What are the disadvantages of eating food that is grown far away?
- 5. How can we promote a local food economy?

ACTIVITIES:

- 1. Eating the Alphabet Read aloud of Ehlert's book. Focus discussion on "local" by asking students if we have that fruit in our garden or if they've seen it in their community. (K-2)
- 2. Over the Line Students each receive a CDE Fruit or Vegetable Card and then put themselves on one side of a rope (fruit/veggie, tried/not tried, local/tropical) then discuss what foods can be grown in Northern California.
- 3. Pass the Tomatoes Please! (Resourceful Schools Project) Students role play the path of a green tomato across the country and the path of a local tomato. (6-8)
- 4. Garden Scavenger Hunt (The Food Project) In small groups, students go to locations in the garden to look for evidence of sustainable practices and reflect on how this differs from industrial practices (6-8)

RESOURCES:

Eating the Alphabet: Fruits and Vegetables from A to Z by Lois Ehlert

CDE Fruit and Vegetable Cards

The St. Louis County Resourceful Schools Project: Pass the Tomatoes Please!

The Food Project: Garden Scavenger Hunt



ORGANICS

GOALS:

The concept of organics is defined and understood by students. Youth learn about basic methods of organic farming including Integrated Pest Management, cover cropping, composting, companion planting, and crop rotation.

GUIDING QUESTIONS:

- 1. What do plants need to grow?
- 2. What are some things that might make it hard for plants to grow?
- 3. What does organic mean?
- 4. What do organic farmers do to help their crops grow?
- 5. What do conventional farmers do to help their crops grow?

ACTIVITIES:

- 1. Deadly Links (Project Wild) In this lesson, students act out roles in a food chain, and watch as pesticides accumulate for the top predators.
- 2. Pest and Beneficial Insects (Edible Schoolyard Pittsburg) Students do a scavenger hunt and then identify both types of insects.
- 3. Organic Foods (Love to Know) Concept of organics is introduced, students compare and contrast organic and non-organic produce and learn the USDA symbols.
- 4. Agriculture and Ecosystems (Teaching the Food System) Excellent background information on organics. Would want to integrate a more participatory activity with the information.

RESOURCES:

Project Wild: Deadly Links

Edible Schoolyard: Pests and Beneficial Insect

Love to Know: Organic Foods

Teaching the Food System: Agriculture and Ecosystems



SEASONAL EATING

GOALS:

Students understand that eating with the seasons has many benefits, both for the consumer and for the earth. Students are introduced to a seasonal harvest calendar for Northern California, as well as what local foods are available year round.

GUIDING QUESTIONS:

- 1. What does it mean to eat with the seasons?
- 2. What foods are always in season here?
- 3. What foods are never in season here?
- 4. Why would a person choose to eat seasonally?
- 5. How can you find out when foods are in season?

ACTIVITIES:

- 1. Mystery Vegetable (Edible Schoolyard) Students review the seasons and then walk in the garden to identify what is currently growing. They then do a tasting of a mystery vegetable growing in the garden.
- 2. Apple Tasting (Slow Food) Students are introduced to the concept of "varieties." Apples are used as an example, with labeled common varieties and then multiple heirloom varieties. Students reflect on why some produce can't travel as well.
- 3. HOTM Food of the Month (Champions for Change) One or more seasonal vegetable or fruit is selected to highlight. Excellent source materials.
- 4. Seasonal Celebration Foods (Green Schools Revolution) Students create a seasonal menu for a holiday. Use in Northern California with CUESTA seasonal chart.
- 5. Seasonal Calendar (CDE Fruit and Vegetable Cards) Students are given a Fresh Fruit and Vegetable Card and asked to discuss in small groups what time of year they think their fruit or vegetable is growing. Students then place themselves on a seasonal calendar and discuss.

RESOURCES:

Edible Schoolyard: Mystery Vegetable

Slow Food: Apple Tasting

Champions for Change: HOTM Food of the Month

Green Schools Revolution

CUESA Seasonal Eating Chart

Fresh Fruit and Vegetable Cards



NON-GMO

GOALS:

Students understand the life cycle of plants, including how seeds disperse and germinate. Students learn that seeds can be bred for different traits, and that now scientists can manipulate genes to select for attributes as well. The need for seed diversity and the political and social implications of Agribusiness controlling seed supply is discussed.

GUIDING QUESTIONS:

- 1. How do plants reproduce? How do they move from one place to another?
- 2. What characteristics make a good plant?
- 3. How do farmers save seed?
- 4. What does it mean when farmers can't save seed?
- 5. What is a GMO?

ACTIVITIES:

- 1. Seed Sensations (Hidden Villa) Students are introduced to the parts of seeds and role of seeds in the the plant life cycle. Students eat and dissect seeds.
- 2. Seed Ya Later (Life Lab) Students collect seed samples from the garden and categorize them by their perceived method of dispersal.
- 3. Seed Saving in the Classroom (Seed Savers) Students reflect on the life cycle of the plant and role of seeds, and then discuss the importance of biodiversity. Students save seed from the garden.
- 4. The Debate on GMOs (Yes! Magazine) Students receive three infographic posters (or handouts) to respond to. Students take turn sharing with the group their reaction to the advertising.

RESOURCES:

Hidden Villa: Seed Sensations

Life Lab: Seed Ya Later

Seed Savers: Seed Saving in the Classroom

Yes! Magazine: The Debate on GMOs



ZERO WASTE

GOALS:

Students understand that we have limited resources here on earth and feel empowered to make choices that positively affect the amount of waste their community produces.

GUIDING QUESTIONS:

- 1. What do you throw away each day? How much of that will easily be made back into soil?
- 2. What turns things back into soil? How can we help this process?
- 3. What that we purchase is over packaged? How can we avoid this?

ACTIVITIES:

- 1. FBI (Hidden Villa) Students learn about decomposers, investigate a worm bin, and build or add to a compost pile.
- 2. Garbage Gone Wild (Kid's Science Challenge) Students sort through their school lunch bins and discuss what is going where, then brainstorm better solutions.
- 3. Environmental Lunch (Do the Rot Thing) Students sort through school lunch waste and sort into landfill, compost, recycle, and reuse.
- 4. Waste Watchers (Resourceful Schools) Station based activity where less to more packaging options are presented (individual bags, economy sized) and evaluated.
- 5. Where Do You Stand? (Doing the 4R's) Students discuss their values around waste reduction after placing them selves on a continuum to various questions.

RESOURCES:

<u>Hidden Villa: FBI</u>

Kid's Science Challenge: Garbage Gone Wild

Do the Rot Thing: Environmental Lunch

The St. Louis Resourceful Schools Project: Waste Watchers

Doing the 4R's: Where Do You Stand?



HEALTH AND WELLNESS

GOALS:

Students are introduced to the components of a healthy diet, as well as reflect on their own eating habits. Students learn about aspects of good mental health and mindfulness, practicing activities that promote calm reflection and awareness in the garden.

GUIDING QUESTIONS:

- 1. What do people do in order to be healthy?
- 2. Why would people want to be healthy?
- 3. What are your favorite fruits and vegetables? How often do you eat them?
- 4. What do you think is your biggest health challenge?
- 5. What is stress? What can people do when they feel upset or angry?

ACTIVITIES:

- 1. Healthy Breakfast (Think Breakfast!) Students are asked to draw their dream breakfast. MyPlate graphic is shown, and then students are asked how they could modify theirs to reflect a healthy breakfast.
- 2. Eat a Rainbow (Life Lab) Students discover and illustrate what different colors of the rainbow, in vegetables, do for our bodies.
- 3. Tai Chi in the Garden (World Tai Chi and Qigong Day) Students reflect on stress management and then practice a short guided session of Tai Chi.
- 4. Mindfulness Sit Spots (Growing Gardeners) Students find a quiet spot in the garden to experience a guided calming/observing experience.

RESOURCES:

Think Breakfast!

MyPlate

Life Lab

World Tai Chi and Qigong Day

Mindfulness Sit Spots



FOOD JUSTICE

GOALS:

Students understand that inequities exist concerning food access, specifically in communities lacking resources. Students feel empowered to make changes in their own practices in order to combat these disparities.

GUIDING QUESTIONS:

- 1. Who gets to eat healthy food? Who doesn't?
- 2. How would where you live affect what food choices you have?
- 3. What is a food desert?
- 4. How does lack of healthy food affect a community?
- 5. What can we as individuals do to affect change?

ACTIVITIES:

- 1. Consumerism (Nutrition to Grow On) Good introduction for students into advertising pressures on purchasing choices. Students look at food ads and then make their own for a fruit or vegetable.
- 2. A Chair For Everyone (The Food Project) Musical chairs, less intensive resource version of What the World Eats. Student are introduced to concepts of global food distribution.
- 3. Eating on a Budget (Exploring Food Justice) Students have play money and decide what they are going to buy with it.
- 4. Stranded! Food Deserts (Exploring Food Justice) Students explore the concept of a "Food Desert," and then discuss how this concept relates to their community.

RESOURCES:

Nutrition to Grow On: Consumerism

The Food Project: A Chair for Everyone

Exploring Food Justice: Eating on a Budget

Exploring Food Justice: Stranded! Food Deserts

