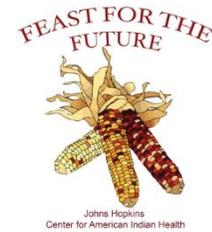


Edible School Garden Program: Curriculum Overview Chart

GRADE 4, FALL LESSONS



Updated 5/27/16

Lesson Number and Title	Learning Objectives	Lesson Activities	Workbook Pages	Teacher Resources	Materials and Preparation
1 Introduction to the Edible School Garden Program	<p>Clearly explain the rules of the garden classroom.</p> <p>Sample plant food snacks and describe the plant food preferences of the class.</p> <p>Describe some ways in which people use plants.</p>	<p>Food Preference Study</p> <p>Garden Tour and Rules</p> <p>Edible School Garden Scavenger Hunt (optional)</p>	Food Preference Study	<p>Full Value Commitment</p> <p>Safety Briefings</p> <p>Edible School Garden Scavenger Hunt Item List (optional)</p>	<ul style="list-style-type: none"> 2 sheets of 22" x 28" white poster boards <ul style="list-style-type: none"> Title one board "Garden Rules" and title the other "Food Preference Study" Hang poster boards in a visible space in the classroom Markers for writing garden rules on the poster boards Pins or tape for hanging up the poster boards Fruits and vegetables for the plant snack food preference study; washed and chopped into snack sized pieces <ul style="list-style-type: none"> You will need at least 4 different varieties of fruits and vegetables (i.e. carrots, broccoli, radishes, apples, tomatoes, celery) Each student receives a total of 4 pieces; 1 piece of each variety Napkins, at least one per student Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
2 Exploring Plant Parts	<p>Describe the 6 parts of a plant and each of their functions.</p> <p>Identify plant parts from plants and weeds in the garden.</p> <p>Learn traditional names and traditional uses for plant parts.</p>	<p>Plant Parts Song</p> <p>Plant Part Hunt</p> <p>Elder Discussion</p>	Taste Test Observations	<p>Plant Parts Song lyrics</p> <p>Plant Parts Song MP3</p>	<ul style="list-style-type: none"> 2 harvested plants from the garden, with roots and other parts intact Prepare a poster (or draw on a white board) with a diagram of a plant showing the six plant parts Wait until the class discussion to label each of the six parts on the picture Computer with speakers or other device to play the MP3 file  Invite an Elder to join the class and introduce the traditional names of plant parts and some traditional uses of plant parts

					<ul style="list-style-type: none"> • Prepared vegetable snack of the week – 1 for each student • Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
<p>3 Beneficial Insects in the Garden</p>	<p>Describe how predator, pollinator and recycler insects are beneficial for the garden.</p> <p>Be introduced to different examples of each insect.</p> <p>Identify insects found in the school garden.</p>	<p>Beneficial Insects</p> <p>Outside Insect Hunt</p> <p>Ladybug Release (optional)</p>	<p>Taste Test Observations</p> <p>Beneficial Insects</p>	<p>Beneficial Insects vs. Harmful Insects</p> <p>What are Beneficial Insects: PowerPoint Presentation</p>	<ul style="list-style-type: none"> • Brown paper bags, 1 for each student • White board or chalkboard • Chalk or a dry-erase marker • Pens or pencils, 1 for each student • Store-bought ladybugs (optional activity depending on availability of ladybugs) • Computer and projector to show presentation • Prepared vegetable snack of the week – 1 for each student • Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
<p>4 Traveling Seeds</p>	<p>Identify at least 4 ways that seeds travel.</p> <p>Test a hypothesis through an experiment.</p> <p>Recognize local seeds and describe traditional uses for seeds.</p> <p>Describe the purpose of seed saving.</p>	<p>Seed Travel Experiment</p> <p>Elder Discussion</p>	<p>Taste Test Observations</p> <p>How Does Your Seed Travel?</p>	<p>Seed Station Cards</p>	<ul style="list-style-type: none"> • Seeds, at least 4 different kinds that travel differently (seeds that float; seeds that fly; seeds that stick to fur or clothing; seeds that are eaten by animals); enough for each student to have at least 2 seeds <ul style="list-style-type: none"> ○ Suggestions for seeds: walnuts, acorns, dandelion seeds, poppy seeds, apple seeds, local hitchhiker seeds • Pencils or pens; 1 for each student • Bowl of water • Fan • Fleece sock or fleece blanket • Set up 4 seed travel experiment stations: 1 with the bowl of water; 1 with the fan; 1 with the fleece material; 1 for smelling the seed (no supplies needed for the seed smelling station) • Local seeds for students to take home (if possible) • Small envelopes; 1 per student, to take seeds home • 🗣️ Invite an Elder to join the class to discuss local seeds, traditional uses for seeds, local seed travel and seed saving • Prepared vegetable snack of the week – 1 for each student

					<ul style="list-style-type: none"> Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
<p>5 Plant Parts - Stems</p>	<p>Describe the function of a plant's stem.</p> <p>Understand how a stem transports water.</p> <p>Learn how to make observations and conduct experiments.</p>	<p>Daisy or Celery Experiment</p> <p>Asparagus Dissection</p> <p>Stem Tasting (optional)</p> <p>Stems in the Garden (optional)</p>	<p>Taste Test Observations</p> <p>Stem Experiments</p>	None	<ul style="list-style-type: none"> 2 Mason jars with water Red and blue dye or food coloring White Gerber daisies (2) OR celery sticks (2) 2 additional Mason jars with daisies or celery soaked in colored water <ul style="list-style-type: none"> Do the daisy or celery experiment at least 24 hours before the class and bring the jars with the colored daisy or celery to class Tape (if using a daisy rather than celery) Pencil (if using a daisy rather than celery) Asparagus spears soaked in blue dye; 1 for each pair of students <ul style="list-style-type: none"> Soak the asparagus spears in blue dye for 24 hours prior to class Rulers; 1 for each pair of students Magnifying glasses; 1 for each pair of students Plastic knives; 1 for each pair of students Paper towels or plates Crayons Stem vegetables for tasting (optional activity) – e.g. celery, broccoli stems, asparagus, cauliflower stems, rhubarb, leeks Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student <p>*If you do not do the optional Stem Tasting activity, prepare vegetable snack of the week – 1 for each student</p>
<p>6 Winterizing the Garden</p>	<p>Be able to define the idea of “winterizing the garden”.</p> <p>Understand the benefits to winterizing the garden.</p> <p>Gain practice in the 3 techniques of winterizing</p>	<p>Winterizing the Garden</p> <p>Elder Discussion</p>	<p>Taste Test Observations</p>	Winterize the Garden	<ul style="list-style-type: none"> Garden tools including rakes, shovels, hoes, gloves; enough for all students to participate Compost, either your own or purchased; quantity needed depends on your garden space Mulch (bark, newspaper or straw)  Invite an Elder to lead the outside class activities on “winterizing the garden” or to speak at the end of the lesson on winterizing or harvesting vegetables for winter use

	the garden: weeding, adding compost and mulching.				<ul style="list-style-type: none"> Prepared vegetable snack of the week – 1 for each student Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
7 Balance My Plate	<p>Describe how food choices can affect health.</p> <p>Use MyPlate to create a balanced meal containing choices from all 5 food groups.</p> <p>Be introduced to major nutrients (protein, vitamins, minerals, sugars and fat).</p>	<p>Is My Meal Balanced?</p> <p>Nutrients: Making Your Body Strong</p> <p>What Nutrients Do for the Body</p>	<p>Taste Test Observations</p> <p>My Plate (blank)</p> <p>My Plate (divided)</p> <p>Nutrients: Making Your Body Strong!</p>	<p>MyPlate</p> <p>My Native Plate</p>	<ul style="list-style-type: none"> Crayons, at least one per student Extra copies of blank MyPlate in case some students wish to draw more than one Prepared vegetable snack of the week – 1 for each student Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
8 Food Labels Are Your Friend	<p>Read a food label on food packages and learn to find serving size and major nutrients.</p> <p>Compare major nutrients on food labels from 2 different food packages.</p>	<p>Reading Nutrition Facts Food Labels- Medium Orange</p> <p>Carrots and Cheetos</p>	<p>Taste Test Observations</p> <p>Nutrients in our Lunch</p> <p>Reading Nutrition Labels- Medium Orange</p> <p>Carrots vs. Cheetos</p>	<p>Carrots vs. Cheetos Nutrition Facts</p>	<ul style="list-style-type: none"> Projector Prepared vegetable snack of the week – 1 for each student Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
9 Measuring a Serving With Your Hands	<p>Identify and measure appropriate serving sizes of various foods from each food group.</p> <p>Learn ways to measure serving sizes using hands.</p>	<p>Portion vs. Serving Size</p> <p>Hand Painted Plates</p> <p>Making a Day's Menu</p> <p>Making a Real Plate (optional)</p>	<p>Taste Test Observations</p> <p>Using Your Hands to Measure Serving Sizes</p> <p>What's Your Healthy Dinner?</p>	<p>None</p>	<ul style="list-style-type: none"> Finger paints, markers, or ink pads; 1 set per each group of 5 students Paper plates; approximately 40, or 4 plates per each group of 5 students 5 plastic plates Box of cereal that lists 1 cup as a serving size Bowl for cereal that holds at least 2-3 cups 1-cup measuring cup Empty 20 oz bottle of soda Newspapers to cover tables for painting activity Paper towels to clean up after painting

					<ul style="list-style-type: none"> Materials for optional activity “Making a Real Plate”: <ul style="list-style-type: none"> 1 white, 8 inch, ceramic plate per student Permanent markers, enough for students to share Prepared vegetable snack of the week – 1 for each student Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student
10 Companion Planting and Traditional Cooking	<p>Define the concept of companion planting.</p> <p>Become familiar with the Three Sisters traditional story.</p> <p>Understand the importance of cooking traditional foods from the garden and connect with a Tribal Elder.</p>	<p>The Three Sisters</p> <p>Cooking Traditional Foods</p>	<p>Taste Test Observations</p> <p>Who are the Three Sisters?</p>	None	<ul style="list-style-type: none"> Spoons (disposable); at least 1 per student Bowls (disposable); at least 1 per student Paper towels or napkins; at least 1 per student Equipment and ingredients as per the recipe that will be used for the cooking demonstration (see the suggested recipes and the materials needed in the lesson plan)  Invite an Elder to lead cooking demonstration Water to drink during the Class Warm-up – water dispenser in the classroom and 1 cup or a water bottle for each student *If you do not do the Cooking Traditional Foods activity, prepare vegetable snack of the week – 1 for each student
FLOATER LESSON: Starter Plants	<p>Learn how to plant seeds using seed packet information.</p> <p>Learn why it is important to plant starter plants.</p> <p>Prepare starter plants in trays.</p>	<p>Reading Seed Packets</p> <p>Starter Plant Trays</p>	None	None	<ul style="list-style-type: none"> Seed packets (1 per student or pair) Popsicle sticks Markers Shovels Watering cans Starter trays (find these at any greenhouse store, or online) Composted soil
FLOATER LESSON: Garden-to-Market Sales Activity	<p>Learn how to calculate which garden-related items can be purchased using the proceeds that were made from the garden-to-market sales.</p>	Garden-to-Market Sales Activity	None	<p>Garden-to-Market Sales Teacher Handout</p> <p>*Revise items if they are not available to you and/or item cost</p>	<ul style="list-style-type: none"> Pictures of harvested vegetables/fruit Pictures of the market where the harvest was sold Computer Projector

				if the cost is different in your area.	
FLOATER LESSON: Lasagna Beds	Learn what lasagna beds are and why they are used. Learn how to prepare a lasagna bed.	Building Lasagna Beds	None	None	Please note: quantity of lasagna bed materials will depend on how large the bed is <ul style="list-style-type: none"> • Cardboard / Shredded paper • Saw dust (go to your local wood shop and they can fill bags) • Coffee or espresso grounds (go to your local coffee shop and ask for old grounds) • Scraps of vegetable and fruit trimmings • Fish meal/emulsion • Grass trimmings • Wood chips/Peat moss • Manure • Leaves/Straw • Composted soil • Watering cans • Shovels <ul style="list-style-type: none"> ○ Prior to class, review Building Lasagna Beds in the Reference Manual
FLOATER LESSON: What is a Weed?	Explore where and why weeds grow. Learn how to identify weeds.	Weed Quiz Identifying Weeds Weeding in the garden (optional)	None	None	<ul style="list-style-type: none"> • Ziploc bags (1 per student) • Blank paper (1 per student) • Markers • Optional Activity: Weeding materials (shovels, gloves, etc.)
FLOATER LESSON: Terrible Weeds	Learn how weeds affect the school garden and the environment. Create wanted posters for their weeds.	Weed Collection Wanted: Weeds	None	Wanted Weeds Handout	<ul style="list-style-type: none"> • Weeding materials (shovels, gloves, etc.) • Markers and/or crayons • Tape
FLOATER LESSON: Jeopardy Review Game	Review knowledge gained during the Edible School Garden Program.	Jeopardy!	None	Jeopardy Game PowerPoint Presentation	<ul style="list-style-type: none"> • Computer • Projector • Prior to class, review Jeopardy Game PowerPoint Presentation to familiarize yourself with the answers.