

The image shows four egg cartons arranged on a wooden deck. Each carton is filled with various fresh herbs and flowers. The top-left carton contains a purple hibiscus, a yellow flower, and green herbs. The top-right carton has a purple hibiscus, a yellow flower, and green herbs. The middle carton features a whole orange, a red flower, a green leaf, a white flower, a daisy, and various green herbs. The bottom carton contains a yellow flower, a purple flower, and green herbs. The word 'APPENDIX' is written in white capital letters across the middle of the image, with a horizontal line below it.

APPENDIX

Emeril's
CULINARY GARDEN &
TEACHING KITCHEN

RESOURCES REFERENCED IN INSTRUCTION



GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
All Grades	Schoolwide Event: Garden Work Party	Tips for hosting a successful school garden work day	https://www.lifelab.org/school-garden-resources-all/2014/09/garden-workdays
K	Lesson #1: Welcome to Garden	Van Zandt, Steve . Banana Slug String Band. "With People I Like."	https://bananaslugs.bandcamp.com/track/with-people-i-like
	Lesson #5: Living or Non-Living?	"Sun Soil Water and Air" Song	https://bananaslugs.bandcamp.com/track/sun-soil-water-air-2
	Lesson #8: Above and Below the Ground	Stevens, Janet. <i>Tops and Bottoms</i> . Houghton Mifflin Harcourt, 1995.	
	Lesson #9: What is Soil Made Of?	Cronin, Doreen. <i>Diary of a Worm: Teachers Pet</i> . Harper Collins, 201	
	Lesson #11: Season Collage	McClure, Nikki. <i>Mama is it Summer Yet?</i> Abrams Books for Young Readers, 2010	
	Lesson #11: Season Collage	Davis, L. J. <i>A Simple Brown Leaf</i> . Abovo Publishing, 2004.	
	Lesson #14: Insect Explorations	Cronin, Doreen. <i>Diary of a Worm: Teachers Pet</i> . Harper Collins, 201	
1	Lesson #5: Soil Web	Cronin, Doreen. <i>Diary of a Worm: Teachers Pet</i> . Harper Collins, 201	
	Lesson #5: Soil Web	Pfeffer, Wendy. <i>A Log's Life</i> . Simon and Schuster, 2007	
	Lesson #7: Planning a Spring Garden	Cherry, Lynne. <i>How Groundhog's Garden Grew</i> . Scholastic, 2003.	
	Lesson #10: Planning a Pizza Bed	Rey, H. A. and Rey, Margret. <i>Curious George and the Pizza</i> . Houghton Mifflin Harcourt, 2010.	
	Lesson #14: Bean Babies	T. Brown, Ruth. <i>Ten Seeds</i> . Andersen Press, 2010.	
	Lesson #15: Seed Dissection	Rockwell, Anne. <i>One Bean</i> . Bloomsbury Publishing USA, 1999	
	Lesson #18: Sheet Shake	Guide to planting for pollinators	http://www.pollinator.org/

GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
2	Lesson #4: Tending the Garden	Cherry, Lynne. <i>How Groundhog's Garden Grew</i> . Scholastic, 2003.	
	Lesson #7: Making Soil	Van Zandt, Steve. "Dirt Made My Lunch." <i>Dirt Made My Lunch</i> . Banana Slug String Band, 1989.	https://bananaslugs.bandcamp.com/album/dirt-made-my-lunch
	Lesson #14: Dissecting Weeds	Van Zandt, Steve. "Roots, Stems, Leaves." <i>Dirt Made My Lunch</i> . Banana Slug String Band, 1989.	https://bananaslugs.bandcamp.com/track/roots-stems-leaves-3
	Lesson #16: Investigating Pollination	Guide to planting for pollinators	www.pollinator.org
3	Lesson #1: Welcome to the Garden!	Henkes, Kevin. <i>Chrysanthemum</i> . Harper Collins, 2007.	
	Lesson #2: Bread is for Eating	Gershator, David and Gershator, Phillis. <i>Bread is for Eating</i> . Macmillan, 1998.	
	Lesson #5: Discovering Our Pests	Identifying Insect Damage	http://davesgarden.com/guides/articles/view/2287#b
	Lesson #5: Discovering Our Pests	Plants that attract beneficial insects	https://permaculturenews.org/2014/10/04/plants-attract-beneficial-insects/
	Lesson #11: Tracing the Journey of Food	Inches, Alison. <i>The Adventures of a Plastic Bottle</i> . Little Simon, 2009.	
	Lesson #12: Bioregions and Food Systems	Brisson, Pat. <i>Before We Eat</i> . Tilbury House Publishers, 2014	
	Lesson #16: Flower Dissection	Heller, Ruth. <i>The Reason for a Flower</i> . Paw Prints, 2009.	

GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
4	Lesson #8: Building a Worm Bin	Guide to building a worm bin	Life Lab's Resource Page
	Lesson #8: Building a Worm Bin	Pfeffer, Wendy. <i>Wiggling Worms at Work</i> . Harper Collins, 2003.	
	Lesson #8: Building a Worm Bin	Make Origami Seed Envelopes	Origami Seed Envelopes pg 458
	Lesson #9: Geography and Food, Part 1	d'Aluisio, Faith and Menzel, Peter. <i>What the World Eats</i> . Tricycle Press, 2008.	
	Lesson #10: Geography and Food, Part 2	List of Countries by Latitude	https://en.wikipedia.org/wiki/List_of_countries_by_latitude
	Lesson #10: Geography and Food, Part 2	Morris, Ann. <i>Bread Bread Bread</i> . Harper Collins, 1993.	
	Lesson #11: The World Travels of a Fruit	Brisson, Pat. <i>Before We Eat: From Farm to Table</i> . Tilbury House Publishers, 2014.	
	Lesson #12: Exploring Our Worm Habitat	Van Zandt, Steve. "The FBI Song (Fungus, Bacteria, Invertebrates)." <i>Singing in Our Garden</i> . Banana Slug String Band, 2002.	https://bananaslugs.bandcamp.com/track/fbi-fungus-bacteria-and-invertebrates
	Lesson #14: Garden and Kitchen Math	Lagasse, Emeril. "Simple Salsa." <i>There's a Chef in My Soup!!</i> . HarperCollins, 2002. 106. Print.	
	Lesson #14: Garden and Kitchen Math	Dodds, Dayle Ann. <i>Minnie's Diner: A Multiplying Menu</i> . Candlewick Press, 2007	
5	Lesson #3: Saving Bean Seeds	Make Origami Seed Envelopes	Origami Seed Envelopes pg 458
	Lesson #3: Saving Bean Seeds	Bardoe, Cheryl. Gregor Mendel: <i>The Friar Who Grew Peas</i> . Harry N. Abrams, 2015	
	Lesson #4: Seed Movers	Cooney, Barbara. <i>Miss Rumphius</i> . Viking Press, 1982.	

GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
	Lesson #7: Rain Gauges	Make a Rain Gauge	https://www.amnh.org/explore/ology/earth/make-your-own-weather-station/make-a-rain-gauge
	Lesson #7: Rain Gauges	Locker, Thomas. <i>Water Dance</i> . Houghton Mifflin Harcourt, 2015.	
	Lesson #14: Planting for Ka-Bam Kabobs	Krauss, Ruth. <i>The Carrot Seed</i> . HarperCollins, 1993.	
	Lesson #16: Teaching Each other How to Plant Seeds	Aston, Dianna. <i>A Seed is Sleepy</i> . Chronicle Books, 2013	
6	Lesson #4: Saving Seeds with Popcorn	Ritchie, Carson I. <i>A. Food Civilization: How History has been Affected by Human Tastes</i> . Methuen Australia, 1981	
	Lesson #4: Saving Seeds with Popcorn	A Handful of Seeds by the Occidental Art and Ecology Center	
	Lesson #4: Saving Seeds with Popcorn	Make Origami Seed Envelopes	Origami Seed Envelopes pg 458
	Lesson #5: Why Do We Have the Foods We Do?	USDA's National Agricultural Statistics Service	https://www.nass.usda.gov/Statistics_by_State/
	Lesson #13: Compost Caretakers	How to Build a Compost Bin	https://extension.missouri.edu/publications/g6957
	Lesson #14: Soil Samples	Soil Shake Jars	https://cdn.agclassroom.org/va/teachers/lesson_subject/soil.pdf
	Lesson #16: Teaching Each other How to Plant Seeds	Aston, Dianna. <i>A Seed is Sleepy</i> . Chronicle Books, 2013	

GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
7	Lesson #3: Micro-climates	USDA Complete Guide to Home Canning	https://www.nifa.usda.gov/about-nifa/blogs/usdas-complete-guide-home-canning
	Lesson #5: Photosynthesis, Part 1	Life Lab’s “Photosynthesis Revealed” lesson	Photosynthesis Revealed pg 756
	Lesson #8: Considering Customers	Growing Ventures by the National Gardening Association	
	Lesson #15: Managing Insects	How to Propagate Salvia	http://homeguides.sfgate.com/propagate-salvia-33836.html
	Lesson #17: Interdependence	Kruse-Peebles, Melissa. “How to Grow a Three Sisters Garden.” <i>Nativeseeds.org</i> . May, 2016.	https://www.nativeseeds.org/learn/nss-blog/415-3sisters
	Lesson #18: Cuttings and Slips	How to Plant and Grow Sweet Potatoes	http://www.diynetwork.com/how-to/outdoors/gardening/how-to-plant-and-grow-sweet-potatoes
K-8	All Lessons	Instruction Sequence Methodology	https://bscs.org/reports/the-bscs-5e-instructional-model-origins-and-effectiveness/

RESOURCES REFERENCED IN INSTRUCTION

GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
K	Lesson #1: Welcome to Kitchen	Elhert, Lois. <i>Eating the Alphabet</i> . Houghton Mifflin Harcourt, 2013	
	Lesson #3: Yummy Wake-Up Smoothies	Falwell, Cathryn. <i>Rainbow Stew</i> . Lee & Low Books, Incorporated, 2013.	
	Lesson #3: Yummy Wake-Up Smoothies	Ehlert, Lois. <i>Planting a Rainbow</i> . Houghton Mifflin Harcourt, 2013.	
	Lesson #11: Who Grows and Prepares our Food?	Brisson, Pat. <i>Before We Eat: From Farm to Table</i> . Tilbury House Publishers, 2014.	
	Lesson #4: 5 Senses Tasting	Moore, Eluka. <i>End of the Rainbow Fruit Salad</i> . Bread & Butter Publishing, LLC, 2015.	
	Lesson #10: Herbed Mediterranean Yogurt Cheese Sprea	Karas, Brian G. <i>On the Farm, At the Market</i> . Henry Holt and Company (BYR), 2016.	
1	Lesson #13: Three Bean Salad	Aston, Dianna Hutts. <i>A Seed is Sleepy</i> . Chronicle Books, 2013.	
2	Lesson #9: Warm Greens with Emeril's Herb Vinaigrette	Davis, L. J. <i>A Simple Brown Leaf</i> . Abovo Publishing, 2004.	
	Lesson #14: Power- Packed Spinach Salad	Pryor, Katherine. <i>Sylvia's Spinach</i> . Readers to Eaters, 2014.	
	Lesson #18: Feast Around the World	Lagasse, Emeril. "Indian Naan Bread." <i>There's a Chef in My World</i> . HarperCollins, 2006. 156. Print.	
3	Lesson #1: Welcome to the Kitchen!	Chapman, Jared. <i>Fruits in Suits</i> . Abrams, 2017.	
	Lesson #3: Getting Started with Paring Knives	Gibbons, Gail. <i>The Tool Book</i> . Holiday House, Incorporated, 2017	
4	Lesson #4: Sweet and Spicy Pickles	USDA Complete Guide to Home Canning	https://www.nifa.usda.gov/about-nifa/blogs/usdas-complete-guide-home-canning
	Lesson #4: Sweet and Spicy Pickles	Lagasse, Emeril. "Emeril's Homemade Sweet and Spicy Pickles." <i>Emerils.com</i> .	https://www.emerils.com/127175/emerils-homemade-sweet-and-spicy-pickles
	Lesson #4: Sweet and Spicy Pickles	The National Center for Home Food Preservation	

GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
	Lesson #5: Freezing and Dehydrating	The Homemade Pantry's Roasted Tomatoes for the Freezer	https://www.serious-eats.com/oven-roasted-fresh-canned-tomatoes-recipe
	Lesson #9: Homemade Pasta	dePaola, Tomie. <i>Strega Nona</i> . Simon and Schuster, 2011.	
	Lesson #10: Latkes	Howland, Naomi. <i>Latkes, Latkes, Good to Eat: A Chanukah Story</i> . Houghton Mifflin Harcourt, 2004.	
	Lesson #13: Strawberry Jam	Owings, Lisa. <i>From Strawberry to Jam</i> Lerner Publications, 2015.	
	Lesson #13: Strawberry Jam	USDA Complete Guide to Home Canning	https://www.nifa.usda.gov/about-nifa/blogs/usdas-complete-guide-home-canning
	Lesson #14: Blueberry French Toast	McCloskey, Robert. <i>Blueberries for Sal</i> . Penguin, 1976.	
	Lesson #16: Food Groups in Food Purchases	d'Aluisio, Faith and Menzel, Peter. <i>What the World Eats</i> . Tricycle Press, 2008.	
5	Lesson #5: Fiesta Quesadillas with Simple Salsa and Holy Moly Guacamole	Handout: Cook's Notes	
	Lesson #5: Fiesta Quesadillas with Simple Salsa and Holy Moly Guacamole	Lagasse, Emeril. "Fiesta Quesadillas with Simple Salsa and Holy Guacamole." <i>There's a Chef in My World</i> . HarperCollins, 2006. 156. Print.	
	Lesson #5: Fiesta Quesadillas with Simple Salsa and Holy Moly Guacamole	Paulson, Gary. <i>The Tortilla Factory</i> . Hampton-Brown Books, 2001	
	Lesson #7: Discovering Proteins	Proteins Lesson for Kids: Definitions and Facts	http://study.com/academy/lesson/proteins-lesson-for-kids-definition-facts.html
	Lesson #10: Cooking Beans	Rupp, Rebecca. <i>How Carrots Won the Trojan War: Curious (but True) Stories of Common Vegetables</i> . Storey Publishing, 2011.	
	Lesson #17: Garam Marsala	VeLure Roholt, Christine. <i>Foods of India</i> . Bellwether Media, Incorporated, 2014	

GRADE	LESSON # AND TITLE	DESCRIPTION OF RESOURCE	LINK, IF RELEVANT
6	Lesson #4: Ka-Bam Kabobs	Safe Minimum Cooking Temperatures	https://www.foodsafety.gov/food-safety-charts/safe-minimum-internal-temperatures
	Lesson #6: Grilled Fish Tacos with a Roasted Chile and Avocado Salsa	<i>Dragons Love Tacos</i> by Adam Rubin and Daniel Salmieri	
	Lesson #7: Breakfast Party Planning, Part 1	Rubin, Adam and Salmieri, Daniel. <i>Dragons Love Tacos</i> . Penguin, 2016.	
	Lesson #10: Homemade Yogurt	Lagasse, Emeril. "Homemade Yogurt." <i>Emerils.com</i> .	http://emerils.com/122265/homemade-yogurt
	Lesson #10: Homemade Yogurt	Science Buddies "Semisolid Science: Growing Yogurt" by <i>Scientific American</i>	https://www.scientificamerican.com/article/bring-science-home-yogurt-bacteria/
	Lesson #12: Nutrients	Your Digestive System	https://www.natgeokids.com/uk/discover/science/general-science/your-digestive-system/
	Lesson #14: Breakfast Business	Numeroff, Laura. <i>If You Give a Moose a Muffin</i> . Harper Collins, 1991.	
7	Lesson # 6: Fall Quinoa Tabbouleh	Lagasse, Emeril. "Fall Quinoa Tabbouleh." <i>Emerils.com</i> .	http://emerils.com/130097/fall-quinoa-tabbouleh
	Lesson #13: Brainstorming Recipes for the Feast Around the World	d'Aluisio, Faith and Menzel, Peter. <i>What the World Eats</i> . Tricycle Press, 2008.	
K-8	All Lessons	Instruction Sequence Methodology	https://bscs.org/reports/the-bscs-5e-instructional-model-origins-and-effectiveness/

Below is a detailed list with suggested quantities of kitchen tools, equipment, and cooking materials for schools.

GARDEN TOOLS AND EQUIPMENT LISTING	SUGGESTED QTY
5-Gallon Bucket	15
Action Hoe	15
Bow Rake	15
Chairs / Benches (sum for all)	30
Cleaning Brush	15-30
Compost Station	1
Digging Fork	30
Food Prep Station	1
Garden Beds	SITE SPECIFIC – SEE GARDEN LAYOUT
Garden Hoe	15
Garden String	
Gloves (per student)	30
Greenhouse	1
Hand Fork	30
Hand Pruner	30
Hand Tool Set	30
Hand Trowel	30
Hand Weeding Tool	15
Handwashing Station	1
Harvest Basket	15
Hoses	5
In-Ground Garden Bed	SITE SPECIFIC – SEE GARDEN LAYOUT
Irrigation / Watering Source (variable on market and size of garden)	SITE SPECIFIC – SEE GARDEN LAYOUT
Landscape Fabric	SITE SPECIFIC – SEE GARDEN LAYOUT
Leaf Rake	SITE SPECIFIC – SEE GARDEN LAYOUT
Long-handled Pruner	30
Perennials	SITE SPECIFIC – SEE GARDEN LAYOUT
Pick Ax	3
Potato Hook	15
Raised garden bed	
Restrooms (see garden specification guidelines)	
Rototiller	1
Seed Packets	50
Shaded outdoor classroom	1
Shovels (digging)	15
Shovels (transfer)	15
Signage	1/garden bed minimum
Soil – cubic ft (Assumes 10 x 3 x 6 ft beds with 10" @ 15 cubic ft of soil per bed)	CALCULATE – SCHOOL SPECIFIC
Spading Fork	30
Storage Area (tool shed)	1
Tool Cleaning Area	1
Trees	SITE SPECIFIC – SEE GARDEN LAYOUT
Watering Can	30
Wheelbarrow	5
White Board/ Instruction Board	1
Work Table with Benches	SEE GARDEN LAYOUT
Worm Bin	1 MIN

Below is a detailed list with suggested quantities of kitchen tools, equipment, and cooking materials for schools.

TOOLS & EQUIPMENT	QTY	TOOLS & EQUIPMENT	QTY	TOOLS & EQUIPMENT	QTY
1-Quart Saucepan	3	Hot Water Canner or Large Pot	3	Salad Bowl	3
10-in Ovenproof Sauté Pan	3	Instant-Read Thermometer	3	Salad Servers	15
10 x 14-in Roasting Pan	3	Juicer	3	Salad Spinner	3
11 x 7-in Baking Dish	3	Kitchen Scissors	3	Serrated Bread Knife	3
12-in Non-Stick Oven Proof Skillet	3	Ladle	3	Serving Platter	3
2 Large Baking Sheets	3	Large Glass or Non-Reactive Bowl	15	Shallow Dish	3
2 Medium Non-Reactive Heatproof Bowl	3	Large Mixing Bowl	15	Sifter	3
2-Quart Sauce Pan	3	Large Nonreactive Bowl	15	Single Sided Grater	3
3 1/2-Quart Heavy Saucepan	3	Large Roasting Pan	3	Small Baking Sheet or Pie Pan	3
3-Quart Heavy Saucepan	3	Large Salad Bowl	15	Small Chef Knife	3
3-Inch Cookie Cutter	3	Large Saucepan	3	Small Ladle	30
4 Medium Sauce Pans	3	Large Sauté Pan	3	Small Mixing Bowl	3
4-Quart Saucepan	3	Large Sheet Pans (2)	3	Small Sauté Pan	15
5-Quart Heavy Pot	3	Large Skillet	3	Small Skillet	3
6-Quart Saucepan	3	Large Thermos	15	Soup Pot or Dutch Oven	3
6 x 9-Inch Loaf Pan	3	Large Wooden Spoon	3	Spice Grinder	3
6-Quart Pot	3	Loaf Pan	3	Spoons—mixing	15
8-Quart Pot	3	Manual Pasta Machine	3	Spoons—serving	3
9-in Cast Iron Skillet (or other Heavy Oven-Proof Skillet)	3	Measuring Cups—glass	3	Spoons—skimmer	6
9 Inch Pie Dish	3	Measuring Cups—metal	3	Spoons—slotted	3
9 X 13-in Baking Dish	3	Measuring cups—plastic	3	Spoons—tasting	3
9 X 5-in Loaf Pan	3	Measuring Spoons—metal	3	Spoons—wooden	6
9 X 9-in Baking Dish	3	Measuring Spoons—plastic	3	Squeeze Bottle	6
Airtight Storage Containers (various sizes)—set	3	Meat Thermometer	3	Standing Electric Mixer fitted with Dough Hook	6
Apple Corer	30	Medium Mixing Bowl	15	Standing Electric Mixer with Paddle Attachment	3
Baking Sheet (2) 9X 13 Inch	3	Medium Saucepan with Lid	3	Steamer Basket	3
Bamboo Skewers or Metal Kabob Skewers—set	6	Medium Skillet 8 or 10-in	3	Steamer Insert	3
Baster	3	Melon Baller	15	Strainer	3
Blender, Vitamix/Food Processor	1	Metal Ladle	3	Strawberry Huller	3
Box Grater	3	Metal Spatula	3	Thermometer	15
Can Opener	3	Metal Tongs	3	Timer	15
Candy Thermometer	3	Metal turner	3	Vegetable Brush	3
Canning Funnel	3	Microplane	3	Vegetable Brush	15
Casserole/Soufflé Dish	3	Mortar & Pestle	3	Vegetable Peeler	15
Chefs Knife	15	Muffin Pan 12 Cup	3	Whisk	15
Coarse Mesh Strainer	3	Nonreactive Container	15	Whisk Attachment for Electric Mixer	15
Colander	3	Oven Proof Sauté Pan	3	Wire Cooling Rack	3
Compost Bucket	3	Paper Mill	3	Wood Turner	3
Cooling Rack	3	Paring Knife	15	Zester	6
Corer	15	Pasta Roller	15	Silverware Set (45)	15
Cutting Board—plastic color coded	30	Pastry Bag with tips	15	<i>Assumes 30 students per teaching kitchen with 3 fully equipped student cooking stations</i>	
Dutch Oven or Large Heavy Saucepan with Lid	3	Pastry Blender	3	COOKING MATERIALS*	
Electric Mixer Fitted with a Dough Hook	3	Pastry Brush	15	5 Ounce Paper Cups	Parchment Paper
Electric Mixer Handheld and Standing	3	Pastry Cutter	15	Aluminum Foil	Plastic Wrap
Fine Grater	3	Peeler	15	Baking Cup Liners	Popsicle Sticks
Fine Mesh Sieve	3	Pie Pan	3	Cheesecloth	Rubber Gloves
Fine Mesh Strainer	3	Pizza Wheel	3	Dish Towel	Ruler
Food Dehydrator	3	Plastic Canning Funnel	3	Kitchen Cloths	Toothpick
Food Mill	3	Plastic Tongs	3	Labels for Jars	Towels
Food Scale	3	Potato Masher	3	Oven Mitts/Potholders	Canning Jars with Lids
Garlic Press	3	Rasp	15	Paper Cups	Preserving Jars and Lids
Griddle	3	Reamer	15	Paper Towels	
Grill or Grill Pan	3	Rimmed Baking Sheet	15	<i>Quantities determined at the school level</i>	
Handheld mixer	3	Rolling Pin	3		
Hot Pads	3	Rubber Spatula	15		
		Rubberized Jar Lifter	3		

BEST PRACTICES CHECKLIST



SCHOOL GARDEN BEST PRACTICES CHECKLIST

At the beginning of every school year, schools should review the Culinary Garden Best Practices Checklist and keep a record of when the checklist was reviewed. If there are any actions that should take place in order for the school to meet a best practice, it should be documented and shared with school administration or facilities team.

Adapted with permission from *School Garden Food Safety Training & Documentation Manual* by the Oregon Department of Education.

NO.		YES	NO	N/A
1.	Identify the garden coordinator (who will be in charge of the garden)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Identify one adult with a current food handler certification to supervise all preparation of food from the garden that is served at school. Name: _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Soil			
	a. Identify the soil history of the garden. (This only needs to occur once and should be recorded to help determine areas of the garden that are not suitable for growing food or may need special amendments.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Test soil of the garden for contaminants such as lead, arsenic, or other materials. (This only needs to be done once unless new soil from another site is introduced to the garden.) (Attach to checklist)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	Water / Irrigation			
	a. Is municipal potable water used for irrigation? If yes, the water is being monitored by your municipality and should be safe to use for irrigation. If no, attach water test to checklist and you should test water once per year.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	Location of the garden site			
	a. Growing plot is located and positioned so that it is not in the path of runoff from agricultural areas, parking lots, roads, or other sources of potential contamination.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Raised beds are made of non-toxic materials.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Chemicals are not stored in close proximity to the garden or harvested food.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Training			
	a. All garden staff and volunteers have been trained on safe food handling practices and garden best practices before working in the garden. (Attach training log to checklist)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. All students have received the Welcome to the Garden lesson orientation (Attach attendance roster to checklist)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Seeds/plants are procured from reputable sources	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Garden coordinator has connected with the school facilities staff to discuss proper location of the garden and any compost areas.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Pesticides and insecticides are not used in the school garden.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

BEST PRACTICES CHECKLIST

At the beginning of every school year, schools should review the Teaching Kitchen Best Practices Checklist and keep a record of when the checklist was reviewed. If there are any actions that should take place in order for the school to meet a best practice, it should be documented and shared with school administration or facilities team.

NO.		YES	NO	N/A
1.	Identify the cooking instructor (who will be in charge of the teaching kitchen) _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2.	Identify one adult with a current food handler certification to supervise all preparation of food that is cooked in the teaching kitchen _____	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3.	Food Safety			
	a. Identify any student allergies in each class and the district policies for food and health. (Attach allergy plan to checklist)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Establish hand washing rituals with each class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. Establish basic safety rituals with each class.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4.	All sinks have sufficient hot and cold water under pressure.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5.	All drains are working properly, and plumbing is maintained in good repair.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
6.	Hand sinks are adequate, accessible to all students, and equipped with soap and paper towels or an approved drying device.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
7.	Hand washing signs are posted at all hand sinks.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
8.	Food preparation and storage areas are clean and free from trash and food residue.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
9.	Cooking equipment and tools.			
	a. The school and/or district has approved student use of the kitchen cooking utensils and equipment. (Attach equipment listing by grade with school / district approval to checklist.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Kitchen equipment is clean and in safe working condition.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
10.	Training			
	a. All staff and volunteers have been trained on safe food handling practices and cooking best practices before working in the teaching kitchen. (Attach training log to checklist)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. All students have received the Welcome to the Kitchen lesson orientation. (Attach attendance roster to checklist)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
11.	Storage			
	a. Chemicals are not stored in close proximity to student cooking stations or food storage.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	b. Personal belongings are stored in a separate, designated area away from food and equipment.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
	c. All food is stored in the correct place to avoid bacteria and food borne illness.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

INDOORS ❁ GRADES 5-6 ❁ FALL, WINTER, SPRING ❁ PROJECT



Photosynthesis Revealed

DESCRIPTION

Teacher conducts as a demonstration a simple experiment creating a visible chemical reaction, first with the carbon dioxide humans exhale and then with the oxygen released from an aquarium plant.

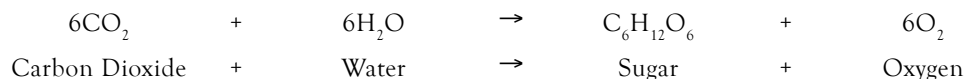
OBJECTIVE

To demonstrate how plants produce oxygen and use carbon dioxide in the course of photosynthesis.

TEACHER BACKGROUND

Plants have the unique capacity to make their own food. This process, called photosynthesis, requires carbon dioxide, sunlight, and water. The carbon dioxide is taken from the air, and from the chemical reaction of photosynthesis the plant gives off excess oxygen. Animals reverse the process, taking in oxygen and giving off carbon dioxide. This exchange between animals and plants recycles the earth's limited air supply. Most scientists are concerned about the increase of carbons in our atmosphere from the burning of petroleum. An increase in carbon can trap more heat in the atmosphere (the greenhouse effect). According to the US Environmental Protection Agency, this is leading to rising global temperatures, which have been accompanied by changes in weather and climate, the melting of glaciers, and a rise in sea levels. Plants help keep the carbon ratio in balance by using carbon dioxide in photosynthesis.

The chemical equation for photosynthesis is:



MATERIALS

- ❁ Observation Sheet, 1 per student, page 416
- ❁ bromothymol blue (available in chemical supply catalogs)
- ❁ lab coat, apron, or smock
- ❁ 2 bottles or test tubes with tight-fitting stoppers that have holes for straws or pipettes
- ❁ 2 straws or pipettes that fit in stopper holes
- ❁ sprig of an aquarium plant (elodea or hornwort)

PREPARATION

Fill a bottle half full with bromothymol blue. Seal with a stopper that has a straw or pipette inserted in the stopper hole.. The stopper must fit tightly in the bottle. If there are gaps around the stopper or straw, seal them with tape. *Note:* Bromothymol blue can stain clothing, so wear a lab coat, apron, or smock.

CLASS DISCUSSION

Animals inhale oxygen and exhale carbon dioxide as part of their respiration systems. Plants use the carbon dioxide and release oxygen into the air during photosynthesis. We can demonstrate this exchange by using a chemical, bromothymol blue, that changes color when carbon dioxide amounts are increased. When you breathe into the chemical, the carbon dioxide you exhaled changes the color of the chemical from blue to yellow-green.

ACTION

1. Demonstrate by breathing in a soft, steady rhythm into the straw of one of the rubber-stopped bottles. *Note:* It's best for the teacher to do this to ensure that no Bromomethyl blue is inhaled.



2. Breathe into the bottles until the blue color becomes yellow-green. Explain that the yellow-green color signifies the presence of carbon dioxide.
3. Ask students to hypothesize how some of the carbon dioxide can be removed from the Bromothymol blue solution. How will they be able to tell if this has happened? (*The color will return to blue.*)
4. Have them test the hypothesis as you remove the stopper and place a sprig of elodea in one of the bottles. Place both bottles in bright sunlight and observe changes over several days. If students develop other hypotheses, follow through on their ideas.
5. Ask students to report the results of the experiment. Discuss the importance of plants in removing carbon dioxide from the atmosphere.

WRAP UP

What was released into the chemical to change its color? How was carbon dioxide removed from the chemical? How did the plant use the carbon dioxide? What is an important exchange that takes place between plants and animals? Why are plants important in maintaining the carbon dioxide balance in our atmosphere?

OUTDOORS ✿ GRADES 2-6 ✿ FALL, SPRING ✿ ACTIVITY



Splash

Adapted with
permission from
Life Lab.

DESCRIPTION

Students build a simple device from milk cartons to observe the effects of raindrops on soil erosion.

OBJECTIVE

To measure and graph the relationship of the force of moving water to the rate of soil erosion.

TEACHER BACKGROUND

Erosion — soil being moved by water or wind — is a natural process, but enormous amounts of topsoil are being washed off farmland, causing serious concern. This activity demonstrates and compares the impact of hard rain and soft rain on the soil. The soil splashed onto the milk cartons represents moved or eroded soil. The harder the rain, the bigger the splash. You can extend the activity by testing different types of soil, including freshly dug soil, compost, sand, clay, and plant-covered soil.

MATERIALS

- ✿ Splash Lab Sheet, one per group, page 430
- ✿ 1 half-gallon milk carton per group of 4
- ✿ enough sand or pebbles to weigh down the cartons
- ✿ 2 large sheets of white paper per group
- ✿ tape
- ✿ 1 ruler per group
- ✿ 1 watering can with a sprinkler head per group

CLASS DISCUSSION

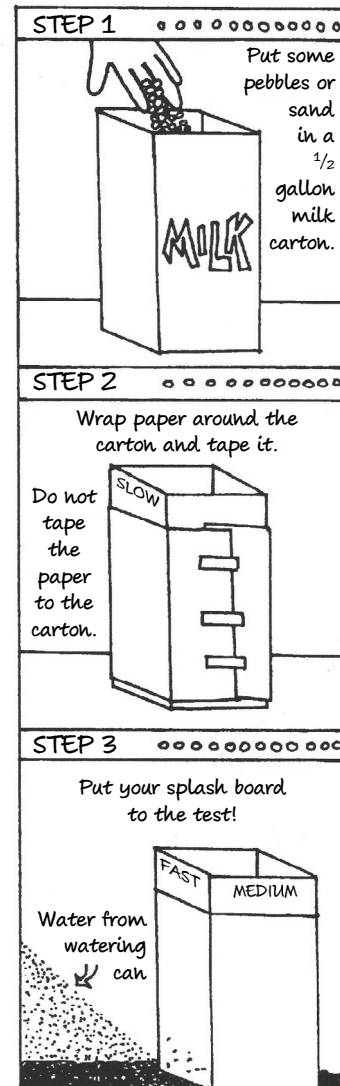
When a raindrop hits hard ground, such as rock or concrete, what happens to the ground? What would happen if a raindrop struck a part of the earth's surface made out of soft soil? What would happen to the soil if the drop were bigger or coming out of the sky faster? (*Record all predictions.*) Imagine now the real situation of millions of raindrops striking the land.

Erosion is the name given to the movement of small rocks and soil from one place to another, either by wind or water. In this activity, you will build a special device called a splashboard and you will use it to investigate the part that raindrops play in erosion.

ACTION

1. Divide the class into groups of four.
2. Demonstrate splashboard construction:
 - ✿ Cut the top off of the milk carton.
 - ✿ Put sand or pebbles in the carton until it is $\frac{1}{3}$ full.
 - ✿ Wrap a piece of white paper around the outside of the carton and tape the ends together. Do not tape the paper to the carton.
 - ✿ With a crayon, write the word "slow" along the top of one side, "medium" along the top of the next side, and "fast" along the top of the third side. Do not write on the taped side.

3. After all the groups have finished building their splashboards, show them (without water) how they will be used and have them guess what will happen. Record predictions.
4. Have each group place its splashboard outside on open soil in an area at least 2 feet (0.6 m) in diameter. Be sure the splashboards are standing straight.
5. Have students fill watering cans and create a mini-rainstorm over the soil in front of the side marked slow. Gently pour water from the can from about knee height. Do not pour water directly on the paper, but rather on the soil as close to it as possible. Any soil splashed up by the water drops will stain the paper.
6. Leaving the splashboard in place, have students repeat the procedure in front of the medium side and then the fast side, pouring from waist and shoulder height, respectively.
7. When students have finished, have them slip the paper off, open it up, and measure and compare the soil splashing. When dry, the papers can be used to illustrate how graphs can be pictures of how nature works.
8. Discuss the results. With the splashboard sheet opened up and dry, have students draw a line along the top edge of the splashing, showing that as the water drops moved faster, bits of soil were heaved higher into the air.



WRAP UP

What did you learn from this experiment? Why hasn't all the soil on the earth washed away? What helps to keep it in place even in a heavy rain? (*Plants provide a protective cover, with their roots holding onto the soil.*) How could you use your splashboards to test your ideas?

DIGGING DEEPER

1. Have students put splashboards on different surfaces – sand, grass, in a garden, on pavement – and compare splashes.
2. Have students tour the school grounds looking for evidence of splash erosion. Does soil splashing along the base of the school buildings give any clues about the direction of the storm?

COMMON CORE STATE STANDARDS (CCSS)

Speaking & Listening

Grade K

CCSS.ELA-Literacy.SL.K.1 Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.

CCSS.ELA-Literacy.SL.K.4 Describe familiar people, places, things, and events and, with prompting and support, provide additional detail.

CCSS.ELA-Literacy.SL.K.6 Speak audibly and express thoughts, feelings, and ideas clearly.

Grade 1

CCSS.ELA-Literacy.SL.1.1 Participate in collaborative conversations with diverse partners about *grade 1 topics and texts* with peers and adults in small and larger groups.

CCSS.ELA-Literacy.SL.1.4 Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly.

CCSS.ELA-Literacy.SL.1.6 Produce complete sentences when appropriate to task and situation.

Grade 2

CCSS.ELA-Literacy.SL.2.1 Participate in collaborative conversations with diverse partners about *grade 2 topics and texts* with peers and adults in small and larger groups.

CCSS.ELA-Literacy.SL.2.4 Tell a story or recount an experience with appropriate facts and relevant, descriptive details, speaking audibly and in coherent sentences.

CCSS.ELA-Literacy.SL.2.6 Produce complete sentences when appropriate to task and situation in order to provide requested detail or clarification.

Grade 3

CCSS.ELA-Literacy.SL.3.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on *grade 3 topics and texts*, building on others' ideas and expressing their own clearly.

Reading: Literature

Grade K

CCSS.ELA-Literacy.RL.K.1 With prompting and support, ask and answer questions about key details in a text.

CCSS.ELA-Literacy.RL.K.7 With prompting and support, describe the relationship between illustrations and the story in which they appear (e.g., what moment in a story an illustration depicts).

Grade 1

CCSS.ELA-Literacy.RL.1.1 Ask and answer such questions as *who*, *what*, *where*, *when*, *why* and *how* to demonstrate understanding of key details in a text.

CCSS.ELA-Literacy.RL.1.7 Use illustrations and details in a story to describe its characters, settings, or events.

Grade 2

CCSS.ELA-Literacy.RL.2.4 Describe how words and phrases (e.g., regular beats, alliteration, rhymes, repeated lines) supply rhythm and meaning in a story, poem, or song.

Grade 2

CCSS.ELA-Literacy.RL.2.7 Use information gained from the illustrations and words in a print or digital text to demonstrate understanding of its characters, setting, or plot.

Grade 3

CCSS.ELA-Literacy.RL.3.6 Distinguish their own point of view from that of the narrator or those of the characters.

Grade 5

CCSS.ELA-Literacy.RL.5.7 Analyze how visual and multimedia elements contribute to the meaning, tone, or beauty of a text (e.g., graphic novel, multimedia presentation of fiction, folktale, myth, poem).

Reading: Informational Text

Grade 1

CCSS.ELA-Literacy.RI.1.5 Know and use various text features (e.g., headings, tables of contents, glossaries, electronic menus, icons) to locate key facts or information in a text.

Grade 2

CCSS.ELA-Literacy.RI.2.5 Know and use various text features (e.g., captions, bold print, subheadings, glossaries, indexes, electronic menus, icons) to locate key facts or information in a text efficiently.

CCSS.ELA-Literacy.RI.2.6 Identify the main purpose of a text, including what the author wants to answer, explain or describe.

Grade 3

CCSS.ELA-Literacy.RI.3.5 Use text features and search tools (e.g., key words, sidebars, hyperlinks) to locate information relevant to a given topic efficiently.

Grade 4

CCSS.ELA-Literacy.RI.4.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from text.

CCSS.ELA-Literacy.RI.4.3 Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.

GRADE 6

CCSS.ELA-Literacy.RI.6.5 Analyze how a particular sentence, paragraph, chapter, or section fits into the overall structure of a text and contributes to the development of the ideas.

GRADE 7

CCSS.ELA-Literacy.RI.7.5 Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to the development of the ideas.

GRADE 8

CCSS.ELA-Literacy.RI.8.7 Evaluate the advantages and disadvantages of using different mediums (e.g., print or digital text, video, multimedia) to present a particular topic or idea.

Language

Grade K

CCSS.ELA-Literacy.L.K.5 With guidance and support from adults, explore word relationships and nuances in word meanings

CCSS.ELA K.L.5 With guidance and support from adults, explore word relationships and nuances in word meanings.

CCSS.ELA-Literacy.L.K.5.a Sort common objects into categories (e.g. shapes, foods) to gain a sense of the concepts the categories represent

CCSS.ELA-Literacy.L.K.5.c Identify real-life connections between words and their use (e.g., note places at school that are colorful).

Grade 1

CCSS.ELA-Literacy.L.1.5 With guidance and support from adults, explore word relationships and nuances in word meanings.

CCSS.ELA-Literacy.L.1.5.a Sort words into categories (e.g., colors, clothing) to gain a sense of the concepts the categories represent.

CCSS.ELA-Literacy.L.1.5.c Identify real-life connections between words and their use (e.g., note places at home that are cozy).

Grade 2

CCSS.ELA-Literacy.L.2.5 Demonstrate understanding of word relationships and nuance in word meanings.

CCSS.ELA-Literacy.L.2.5.a Identify real-life connections between words and their use (e.g., describe foods that are *spicy or juicy*)

CCSS.ELA-Literacy.L.2.5.b Distinguish shades of meaning among closely related...adjectives (e.g., *thin, slender, skinny, scrawny*).

Grade 3

CCSS.ELA-Literacy.L.3.5 Demonstrate understanding of word relationships and nuance in word meanings.

CCSS.ELA-Literacy.L.3.5.b Identify real-life connections between words and their use (e.g., describe people who are *friendly or helpful*)

Writing

Grade 1

CCSS.ELA-Literacy.W.1.2 Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure.

Grade 3

CCSS.ELA-Literacy.W.3.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences.

Grade 5

CCSS.ELA-Literacy.W.4.2 Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

GRADE 6

CCSS.ELA-Literacy.W.6.1 Write arguments to support claims with clear reasons and relevant evidence

CCSS.ELA-Literacy.W.6.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CCSS.ELA-Literacy.W.6.7 Conduct short research projects to answer a question, drawing on several sources and refocusing the inquiry when appropriate.

GRADE 7

CCSS.ELA-Literacy.W.7.1 Write arguments to support claims with clear reasons and relevant evidence

CCSS.ELA-Literacy.W.7.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

GRADE 8

CCSS.ELA-Literacy.W.8.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

CCSS.ELA-Literacy.W.8.7 Conduct short research projects to answer a question (including a self-generated question), drawing on several sources and generating additional related, focused questions that allow for multiple avenues of exploration

Math

Grade K

CCSS.Math.K.CC Count to tell the number of objects.

CCSS.MATH.K.MD Describe and compare measurable attributes

Grade 1

CCSS.Math.1.MD Measure lengths indirectly and by iterating length units

CCSS.Math.1.OA Represent and solve problems involving addition and subtraction

CCSS.Math.1.G.3 Partition circles or rectangles into two and four equal shares, describe the shares using the words halves, fourths, and quarters.

Grade 2

Measure and estimate lengths in standard units.

CCSS.Math.Content.2.MD.A.1 Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

CCSS.Math.Content.2.MD.A.2 Measure the length of an object twice, using length units of different lengths for the two measurements; describe how the two measurements relate to the size of the unit chosen.

CCSS.Math.Content.2.MD.A.3 Estimate lengths using units of inches, feet, centimeters, and meters.

CCSS.Math.Content.2.MD.A.4 Measure to determine how much longer one object is than another, expressing the length difference in terms of a standard length unit.

Represent and interpret data.

CCSS.Math.Content.2.MD.D.9 Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

CCSS.Math.Content.2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems¹ using information presented in a bar graph.

Represent and solve problems involving addition and subtraction.

CCSS.Math.Content.2.OA.A.1 Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem

Work with equal groups of objects to gain foundations for multiplication.

CCSS.Math.Content.2.OA.C.3 Determine whether a group of objects (up to 20) has an odd or even number of members, e.g., by pairing objects or counting them by 2s; write an equation to express an even number as a sum of two equal addends.

CCSS.Math.Content.2.OA.C.4 Use addition to find the total number of objects arranged in rectangular arrays with up to 5 rows and up to 5 columns; write an equation to express the total as a sum of equal addends.

Grade 3

Solve problems involving measurement and estimation.

CCSS.Math.Content.3.MD.A.2 Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings (such as a beaker with a measurement scale) to represent the problem.

Represent and solve problems involving multiplication and division.

CCSS.Math.Content.3.OA.A.1 Interpret products of whole numbers, e.g., interpret 5×7 as the total number of objects in 5 groups of 7 objects each. *For example, describe a context in which a total number of objects can be expressed as 5×7 .*

CCSS.Math.Content.3.OA.A.2 Interpret whole-number quotients of whole numbers, e.g., interpret $56 \div 8$ as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. *For example, describe a context in which a number of shares or a number of groups can be expressed as $56 \div 8$.*

CCSS.Math.Content.3.OA.A.3 Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.

CCSS.Math.Content.3.OA.A.4 Determine the unknown whole number in a multiplication or division equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations $8 \times ? = 48$, $5 = _ \div 3$, $6 \times 6 = ?$*

Use place value understanding and properties of operations to perform multi-digit arithmetic.

CCSS.Math.Content.3.NBT.A.1 Use place value understanding to round whole numbers to the nearest 10 or 100.

CCSS.Math.Content.3.NBT.A.2 Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction.

CCSS.Math.Content.3.NBT.A.3 Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9×80 , 5×60) using strategies based on place value and properties of operations.

Grade 4

CCSS.Math.Content.4.NF.B.4.c Solve word problems involving multiplication of a fraction by a whole number, e.g., by using visual fraction models and equations to represent the problem. *For example, if each person at a party will eat $\frac{3}{8}$ of a pound of roast beef, and there will be 5 people at the party, how many pounds of roast beef will be needed? Between what two whole numbers does your answer lie?*

Use the four operations with whole numbers to solve problems. (H4 tan)

CCSS.Math.Content.4.OA.A.1 Interpret a multiplication equation as a comparison, e.g., interpret $35 = 5 \times 7$ as a statement that 35 is 5 times as many as 7 and 7 times as many as 5. Represent verbal statements of multiplicative comparisons as multiplication equations.

CCSS.Math.Content.4.OA.A.2 Multiply or divide to solve word problems involving multiplicative comparison, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem, distinguishing multiplicative comparison from additive comparison.

CCSS.Math.Content.4.OA.A.3 Solve multistep word problems posed with whole numbers and having whole-number answers using the four operations, including problems in which remainders must be interpreted. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding.

Classify objects and count the number of objects in each category.

CCSS.Math.Content.K.MD.B.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

Represent and interpret data.

CCSS.Math.Content.1.MD.C.4 Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.

Social Studies

Elementary Themes

Social Studies Citizenship

Social Studies Geography

Social Studies Cultural Traditions

Social Studies Diversity and Community

Social Studies Economics

Social Studies Character/Heroes

Social Studies History

GRADES 6-8

CCSS.ELA-Literacy.RH.6-8.1 Cite specific textual evidence to support analysis of primary and secondary sources

CCSS.ELA-Literacy.RH.6-8.3 Identify key steps in a text's description of a process related to history/social studies

CCSS.ELA-Literacy.RH.6-8.7

Integrate visual information (e.g., in charts, graphs, photographs, videos, or maps) with other information in print and digital texts

NEXT GENERATION SCIENCE STANDARDS (NGSS)

Engineering Technology and Applications of Science

GRADES 6-8

NGSS.MS-ETS1-1 Define the criteria and constraints of a design problem with sufficient precision to ensure a successful solution, taking into account relevant scientific principles and potential impacts on people and the natural environment that may limit possible solutions.

NGSS.MS-ETS1-2 Evaluate competing design solutions using a systematic process to determine how well they meet the criteria and constraints of the problem.

NGSS.MS-ETS1-3 Analyze data from tests to determine similarities and differences among several design solutions to identify the best characteristics of each that can be combined into a new solution to better meet the criteria for success.

NGSS.MS-ETS1-4 (H3A) Develop a model to generate data for iterative testing and modification of a proposed object, tool, or process such that an optimal design can be achieved.

Physical Sciences

GRADES 6-8

NGSS.MS-PS3-1 Construct and interpret graphical displays of data to describe the relationships of kinetic energy to the mass of an object and to the speed of an object.

NGSS.MS-PS3-3 Apply scientific principles to design, construct, and test a device that either minimizes or maximizes thermal energy transfer.

Life Sciences

Grade K

NGSS.K-LS1-1

Use observations to describe patterns of what plants and animals (including humans) need to survive.

Grade 1

NGSS.1-LS1-1 Use materials to design a solution to a human problem by mimicking how plants and/or animals use their external parts to help them survive, grow and meet their needs.

NGSS.1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like, their parents.

Grade 2

NGSS.2-LS2-1 Plan and conduct an investigation to determine if plants need sunlight and water to grow.

NGSS.2-LS2-2 Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

NGSS.2-LS4-1 Make observations of plants and animals to compare the diversity of life in different habitats.

Grade 3

NGSS.3-LS4-4 Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.

GRADES 6-8

NGSS.MS-LS1-3 Use argument supported by evidence for how the body is a system of interacting subsystems composed of groups of cells.

NGSS.MS-LS1-4 Use argument based on empirical evidence and scientific reasoning to support an explanation for how characteristic animal behaviors and specialized plant structures affect the probability of successful reproduction of animals and plants respectively.

NGSS.MS-LS1-5 Construct a scientific explanation based on evidence for how environmental and genetic factors influence the growth of organisms.

NGSS.MS-LS1-6 Construct a scientific explanation based on evidence for the role of photosynthesis in the cycling of matter and flow of energy into and out of organisms.

NGSS.MS-LS1-7 Develop a model to describe how food is rearranged through chemical reactions forming new molecules that support growth and/or release energy as this matter moves through an organism.

NGSS.MS-LS2-1 Analyze and interpret data to provide evidence for the effects of resource availability on organisms and populations of organisms in an ecosystem.

NGSS.MS-LS2-2 Construct an explanation that predicts patterns of interactions among organisms across multiple ecosystems.

NGSS.MS-LS2-3 Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of an ecosystem.

NGSS.MS-LS2-4 Construct an argument supported by empirical evidence that changes to physical or biological components of an ecosystem affect populations.

NGSS.MS-LS2-5 Evaluate competing design solutions for maintaining biodiversity and ecosystem services.

EARTH AND SPACE SCIENCES

Grade K

NGSS.K-ESS2-2 Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

NGSS.K-ESS3-1 Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.

Grade 1

NGSS.1-ESS1-2 Make observations at different times of year to relate the amount of daylight to the time of year.

Grade 2

NGSS.2-ESS1-1 Use information from several sources to provide evidence that Earth events can occur quickly or slowly.

Grade 5

NGSS.5-ESS3-1 Obtain and combine information about ways individual communities use science ideas to protect the Earth's resources and environment. But individuals and communities are doing things to help protect Earth's resources and environments.

GRADES 6-8

NGSS.MS-ESS2-1 Develop a model to describe the cycling of Earth's materials and the flow of energy that drives this process.

NGSS.MS-ESS2-4 Develop a model to describe the cycling of water through Earth's systems driven by energy from the sun and the force of gravity.

NGSS.MS-ESS3-3 Apply scientific principles to design a method for monitoring and minimizing a human impact on the environment.

NGSS SCIENCE AND ENGINEERING PRACTICES

Asking Questions and Defining Problems

Constructing Explanations and Designing Solutions

Analyzing and Interpreting Data

Planning and Carrying Out Investigations

Developing and Using Models

Engaging in Argument from Evidence

Obtaining, Evaluating and Communicating Information

Art

Grade K

VA:Cr1.1.Ka Engage in exploration and imaginative play with materials.

VA:Cr2.1.Ka Through experimentation, build skills in various media and approaches to artmaking.

CDC NATIONAL HEALTH EDUCATION STANDARDS

National Health Education Standard 1 Students will comprehend concepts related to health promotion and disease prevention to enhance health.

National Health Education Standard 2 Students will analyze the influence of family, peers, culture, media, technology, and other factors on health behaviors.

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

National Health Education Standard 4 Students will demonstrate the ability to use interpersonal communication skills to enhance health and avoid or reduce health risks.

National Health Education Standard 5 Students will demonstrate the ability to use decision-making skills to enhance health.

National Health Education Standard 6 Students will demonstrate the ability to use goal-setting skills to enhance health.

National Health Education Standard 7 Students will demonstrate the ability to practice health-enhancing behaviors and avoid or reduce health risks.

National Health Education Standard 8 Students will demonstrate the ability to advocate for personal, family, and community health.

FEAST AROUND THE WORLD

At the end of each school year, students will prepare for a culminating community event titled Feast Around the World. At this gathering, students, family, and community members come together to enjoy a feast prepared by the students featuring produce from the garden. Students will prepare stations highlighting not only the food, but the geography, culture, and traditions of the country.

ELEMENTARY SCHOOL

In Elementary School, the Scope and Sequence outlines countries around the world for students to research cultural traditions, common produce, and dishes.

GRADE	COUNTRY
K	Vietnam
1	Mexico
2	India
3	China
4	Morocco
5	India

Tips:

- Have Grade 5 students serve as peer mentors to Grade 2 students in researching India.

MIDDLE SCHOOL

In Grade 7, students become the event planners for the Middle School Feast Around the World! They will use what they have learned from the Elementary School Feast to plan and prepare their own feast. Through research, student teams will explore recipes and cultures in various regions of the world. Then will then select countries for Grades 6, 7, and 8 to further research food, geography, climate, culture, and traditions of the country. Each middle school class will then prepare a dish from their country to enjoy at the feast, incorporating produce from the garden whenever possible.

Tips:

- Enlist help from parent volunteers, teachers, and community members. Look especially for parents or community members who can share recipes and mealtime traditions from their own cultures.



THINK-PAIR-SHARE DISCUSSION MODEL

Think-Pair-Share is an alternative to the traditional class discussion format. Instead of asking a question and then calling on a student with a raised hand, the teacher asks a question and then asks students to do the following:

1. Think quietly to themselves about an answer.
2. Turn to a partner to pair up and discuss each other's ideas.
3. Raise their hands to share thoughts, one at a time, and discuss with the whole group.

You can learn more about Think-Pair-Share at TeacherVision.com.

TRANSITION TECHNIQUES

BREAKING INTO SMALL GROUPS

When you want to explain a task to the whole class, and then have students break into small groups to complete it, it can be effective to start your explanation in an intentional way, such as by saying "When I say go, and not before I say go, each group will ...". When you have finished all of your instructions, then you can say "Alright ...go!" This ensures that students know specifically when it is time to listen and when it is time to start their task.

GATHERING TOGETHER

When you want to call your students back together after they have been actively working in small groups, it can be fun to use a call back signal such as a chime, a special call-and-response, or a coyote howl. Some teachers say, for example: "One, Two, Three, Eyes on Me", and have the students respond "One, Two, Eyes on You!" or "When I say Sun, You say Flower. Sun ..." and students respond "Flower!"

Teach your students exactly what they are expected to do when they hear the call back, such as "Respond, and then return to the circle and give me your quiet attention within ten seconds." After you use the call-back, start a count-down to keep them motivated, as in "Ten, nine, eight ..." Their goal is to be circled up, quiet, and ready to listen when you get to zero. Practice this routine until they've got it down.

READ ALOUD STRATEGIES

ECHO READ

In an Echo Read, the teacher simply reads a short passage, and students repeat. You can learn about this strategy on the [Strategies for Special Interventions website](#).

CHORAL READ

In a Choral Read, the teacher and students read a passage together at the same time. You can learn about this strategy on the [Reading Rocket website](#).

STRATEGIES FOR DIVIDING TASKS

The garden and the kitchen provide abundant opportunities to divide a large task across many hands. Whether your students are preparing salsa or planting zucchini together, it will be helpful to have some strategies for guiding them in divvying up tasks. There are many ways to do this. Below we've summarized a few possibilities:

CARDINAL DIRECTIONS

Post the cardinal directions in your garden or kitchen. When it's time to divide tasks within groups, say something like "The person standing at the north end of the table will chop the tomatoes; then working around clockwise, the next person will chop the onion ..." and so on.

CHORE CHART

Create a Chore Chart in your garden or kitchen, and have groups rotate through various tasks. For example, when cleaning up the kitchen, Group A can be the Sweepers, Group B the Counter Wipers, etc. Then, each week, rotate the groups so that they are moved to a new task. The [We Are Teachers website](#) has loads of ideas for how these charts can look and operate.

POPSICLE STICKS

You can write each student's name on a popsicle stick and place all the names for one class in a cup. Then, when you want to select one individual student for a job, such as for example pushing the button on the blender, you simply pull a popsicle stick and call that student up.

CHORE CARDS

For regular chores, like Dishes, Sweeping, or Wiping Counters, you can write each chore onto a card and have students or groups pull cards from a bowl. The card they pull determines the task they will fulfill for that class period.

STUDENT CHOICE

When possible, it can be exciting and empowering for students to choose how they will contribute to the task at hand. Simply list the chores that need to happen, such as “Flipping Compost, Mulching Pathways, and Weeding” and ask students to sign up for the one they want to take on.

LEARNING GAMES

MEET A PLANT

In this game, students partner up. One student closes his/her eyes and the other guides his/her partner safely to a plant to explore with eyes closed. The partner then guides the student with his/her eyes closed back to a gathering area. The student opens eyes, and tries to find the plant they explored.

BLIND TASTE TEST GAME

In this game, students pair up. One student closes his/her eyes or puts on a blindfold and plugs his/her nose. The partner gives them something to taste, such as a slice of fruit, a basil leaf, or a green bean. The blindfolded person tries to guess what it is. Then they try the same food with their nose open and see if they can taste a difference and guess again. Then, they switch roles.

GARDENING SKILLS OBSERVATION CHECKLIST

Use the table below to observe and note areas of strength and suggestions for improvement on each student’s development of the garden tools and behaviors learning objectives for gardening skills embedded in programming and curriculum of Emeril’s Culinary Garden & Teaching Kitchen.

This table can be used as a reflection tool to coach and guide a student or as an evaluation tool to measure if you are achieving the program goals.

Name of Student: _____

Garden Tools and Equipment Skills Insert garden tools and equipment learning objective(s) below.		Pros Specific ways student demonstrates this skill.	Grows Specific ways student can grow or improve in this area.
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
Garden Behaviors Skills Insert garden behaviors learning objective(s) and/or garden agreements below.		Pros Specific ways student demonstrates this skill.	Grows Specific ways student can grow or improve in this area.
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

COOKING OBSERVATION CHECKLIST

Use the table below to observe and note areas of strength and suggestions for improvement on each student’s development of the kitchen learning objectives for cooking skills embedded in the curriculum of Emeril’s Culinary Garden & Teaching Kitchen.

This table can be used as a reflection tool to coach and guide a student or as an evaluation tool to measure if you are achieving the program goals.

Name of Student: _____

Cooking Skills	Pros	Grows
Insert learning objective(s) below.	Specific ways student demonstrates this skill.	Specific ways student can grow or improve in this area.
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		
<input type="checkbox"/>		

CLEANING OBSERVATION CHECKLIST

Use the table below to observe and note areas of strength and suggestions for improvement on each student’s development of the kitchen learning objectives for cleaning skills embedded in the curriculum of Emeril’s Culinary Garden & Teaching Kitchen.

This table can be used as a reflection tool to coach and guide a student or as an evaluation tool to measure if you are achieving the program goals.

Name of Student: _____

Cleaning Skills	Insert learning objective(s) and/or kitchen agreements below.	Pros Specific ways student demonstrates this skill.	Grows Specific ways student can grow or improve in this area.
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			
<input type="checkbox"/>			

STUDENT LIFE SKILLS OBSERVATION CHECKLIST

Use the table below to observe and note areas of strength and suggestions for improvement on each student's development of the Personal and Community Life Skills embedded in Emeril's Culinary Garden & Teaching Kitchen. This checklist can be used as a reflection tool to coach and guide a student or as an evaluation tool to measure if you are achieving the program goals.

Name of Student: _____

Personal Life Skills		Pros Specific ways student demonstrates this skill.	Grows Specific ways student can grow or improve in this area.
PLS.1 <input type="checkbox"/>	Students are self-aware and show respect for their own needs, the needs of others, and the environment. They practice safe and conscientious behaviors in the garden and kitchen environments.	Date: Example:	Date: Example:
PLS.2 <input type="checkbox"/>	Students are able to express empathy and caring for themselves, others, and the environment.	Date: Example:	Date: Example:
PLS.3 <input type="checkbox"/>	Students cultivate honest and responsible behaviors that contribute to the learning of the community.	Date: Example:	Date: Example:
PLS.4 <input type="checkbox"/>	Students are active and engaged learners who show up on time prepared to learn and manage their time wisely.	Date: Example:	Date: Example:
PLS.5 <input type="checkbox"/>	Students develop the ability to make informed and responsible decisions.	Date: Example:	Date: Example:
PLS.6 <input type="checkbox"/>	Students actively seek creative and resourceful solutions.	Date: Example:	Date: Example:
Community Life Skills		Pros Specific ways student demonstrates this skill.	Grows Specific ways student can grow or improve in this area
CLS.1 <input type="checkbox"/>	Students demonstrate problem solving and resolve conflict as a team.	Date: Example:	Date: Example:
CLS.2 <input type="checkbox"/>	Students cooperate and communicate well with each other.	Date: Example:	Date: Example:
CLS.3 <input type="checkbox"/>	Students understand and apply principles of fairness, equity, and democracy in the garden and kitchen environments.	Date: Example:	Date: Example:
CLS.4 <input type="checkbox"/>	Students appreciate and are respectful of differences and diversity in their communities.	Date: Example:	Date: Example:
CLS.5 <input type="checkbox"/>	Students participate in the development of agreed upon protocols and behaviors for the garden and kitchen environments.	Date: Example:	Date: Example:



The Action Plan Template is designed to:

- Identify your implementation team.
- Help your team set key schoolwide goals.
- Plan the steps your team will take this year and into the future.
- Decide who will be responsible for leading and supporting each project in support of the school year goal.

This is a tool for success toward meeting your goals and creating a sustainable program. It is important to return to these goals throughout the year as a team and check your progress so that you can make adjustments as your program develops.

We suggest monthly team meetings to track your progress and troubleshoot any roadblocks that arise with your team members. It is ideal to build a diverse team with community members, teachers, students (if possible), professionals and family members. At the end

of the year, please indicate whether or not you completed the goal in the desired timeline and use the insights from the year to develop your next year's action plan. The long-term goals section is ideal for recording goals that will take more than one year to accomplish.

BUILD YOUR TEAM

Please list the names of your culinary education / implementation team (include teachers, community members and students and parents who are responsible for getting your program off the ground and helping establish short and long-term goals. This team can be an existing wellness team, school garden team, farm to school team or a combination of farm to table champions working to bring Emeril's Culinary Garden & Teaching Kitchen to your school). You do not have to have 10 team members. Please adjust according to the size of your team. We suggest a minimum of five.

Name	School Admin	Teacher	Food Service	Other Staff	Student	Parent	Site Staff	Community Partner	Other
<i>Ex: Jane Smith</i>	X								

SCHOOL YEAR GOALS—CAPITAL IMPROVEMENTS

SET SCHOOL-WIDE GOALS

Capital Improvement Area <i>Garden</i> or <i>Kitchen</i>	Goal • What progress does the team want to make? • What does success look like?	Action Steps & Timeline • What needs to be done? • What are the key milestones? • What is the due date for each milestone?	Role • Who is the lead? • Who else will be involved?	Resources Needed • What contacts, materials, or resources does the team need?	Status • What progress was made? • Did you achieve the goal this year?
<input type="checkbox"/> <i>Garden</i> <input type="checkbox"/> <i>Kitchen</i>			Leader: _____ Others Involved:		% Completed
<input type="checkbox"/> <i>Garden</i> <input type="checkbox"/> <i>Kitchen</i>			Leader: _____ Others Involved:		% Completed
<input type="checkbox"/> <i>Garden</i> <input type="checkbox"/> <i>Kitchen</i>			Leader: _____ Others Involved:		% Completed

SCHOOL YEAR GOALS—CAPITAL IMPROVEMENTS

SET SCHOOL-WIDE GOALS

Capital Improvement Area <i>Garden</i> or <i>Kitchen</i>	Goal • What progress does the team want to make? • What does success look like?	Action Steps & Timeline • What needs to be done? • What are the key milestones? • What is the due date for each milestone?	Role • Who is the lead? • Who else will be involved?	Resources Needed • What contacts, materials, or resources does the team need?	Status • What progress was made? • Did you achieve the goal this year?
<input type="checkbox"/> <i>Garden</i> <input type="checkbox"/> <i>Kitchen</i>			Leader: _____ Others Involved:		% Completed
<input type="checkbox"/> <i>Garden</i> <input type="checkbox"/> <i>Kitchen</i>			Leader: _____ Others Involved:		% Completed

LONG-TERM GOALS

SCHOOL YEAR GOALS—PROGRAM IMPLEMENTATION

Program Activity Area: <ul style="list-style-type: none"> • Cooking • Gardening • Academic Connections • Nutrition • Life Skills Development • Community & Family Engagement 	Goal <ul style="list-style-type: none"> • What progress does the team want to make? • What does success look like? 	Action Steps & Timeline <ul style="list-style-type: none"> • What needs to be done? • What are the key milestones? • What is the due date for each milestone? 	Role <ul style="list-style-type: none"> • Who is the lead? • Who else will be involved? 	Resources Needed <ul style="list-style-type: none"> • What contacts, materials, or resources does the team need? 	Status <ul style="list-style-type: none"> • What progress was made? • Did you achieve the goal this year?
			Leader: _____ Others Involved:		% Completed
			Leader: _____ Others Involved:		% Completed

LONG-TERM GOALS

IMPLEMENTATION TIMELINE

ACADEMIC YEAR _____

Month	Start Date	End Date	Activity/Event	Person(s) Responsible
July				
August				
September				
October				
November				
December				
January				

Month	Start Date	End Date	Activity/Event	Person(s) Responsible
February				
March				
April				
May				
June				
July				

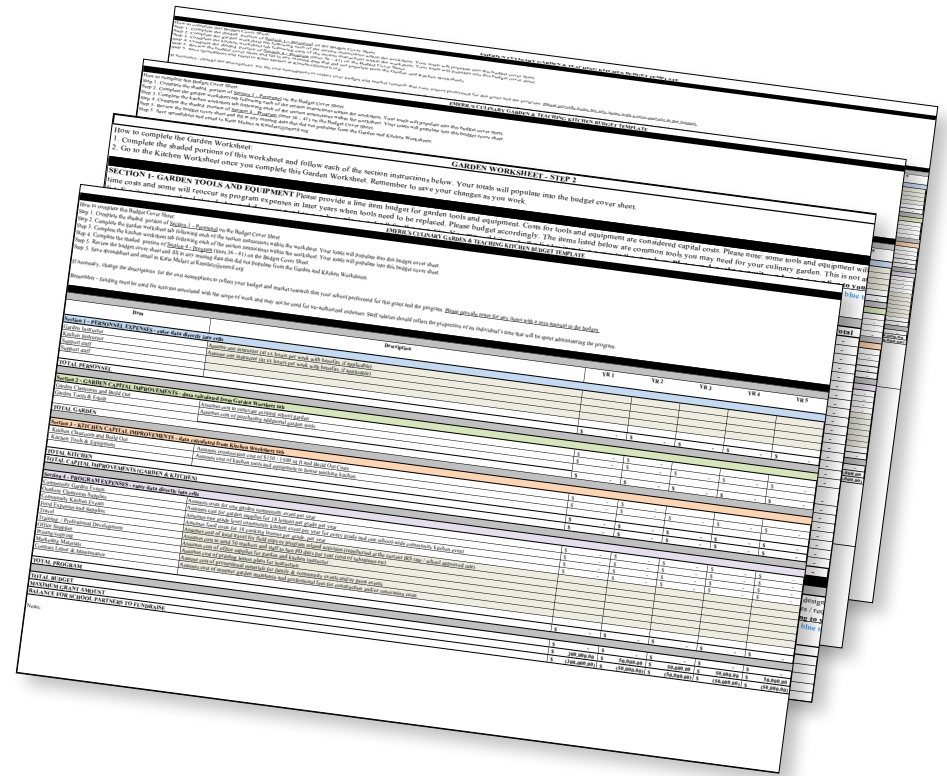
HOW TO USE THE SCHOOL PARTNER BUDGET TEMPLATE:

The School Partner Budget Template is the excel spreadsheet budgeting tool provided to schools during the application process to help project expenses associated with implementing Emeril's Culinary Garden & Teaching Kitchen. The School Partner Budget Template includes the following worksheet tabs:

- **Overview:** An overview of how to complete the Budget Template, what are considered allowable costs and helpful information for completing the budget.
- **Budget Cover Sheet:** A 5 year budget for school partners
- **Garden Worksheet:** A budgeting tool for school gardens that lists sample items for capital and program expenses.
- **Kitchen Worksheet:** A budgeting tool for teaching kitchens that lists sample items for capital and program expenses.
- **Budget Report:** A report form to compare your annual program budget to actual expenses. This reporting form should be submitted every year with the School Partner Report Card.

BUDGET REPORT

At the end of every school year, use the budget template to report on all project activities completed to date with Emeril's Culinary Garden & Teaching Kitchen grant funds, and compare actual expenditures of foundation funds to your approved project budget. Please indicate any amount of grant funds that remain unspent at the end of the reporting period. If you have questions about how to complete the Budget Template and Budget Report, please e-mail programs@emeril.org



Remember—funding must be used for activities associated with your scope of work and may not be used for un-authorized expenses. Staff salaries should reflect the proportion of an individual's time that will be spent administering the program.

[INSERT SCHOOL LOGO]

POSITION: Garden instructor

School Background

ABC School is a high performing public school with a mission to educate, empower, and enable all students to become thoughtful, contributing citizens who can succeed in an ever-changing world. In 2017, ABC School was awarded a grant to implement Emeril's Culinary Garden & Teaching Kitchen, a signature program of the Emeril Lagasse Foundation that enriches the lives of kids through a fun, fresh perspective on food. We're so proud to be a partner of this initiative and bring this quality program to our community.

Program Background

Emeril's Culinary Garden & Teaching Kitchen is a national education initiative that integrates culinary garden and teaching kitchens in schools to create interactive learning environments centered on food. The program has four key pillars, which guide the overall goals and desired outcomes of its implementation: appreciation for the source of food; development of life skills through food; nutrition education; development of culinary skills.

Position Description

The garden instructor will be responsible for maintaining ABC School's culinary garden and leading instruction for K-8 grade garden lessons, integrating the garden content with core academic subjects, collaborating with academic teachers and the cooking instructor on lesson planning for grade levels and coordinating volunteer and community garden work days.

In collaboration with the school's wellness committee and/or culinary garden and cooking education and planning committee (farm to school team), the garden instructor will lead efforts developing annual action plans to set school wide program goals for garden classes.

This position is full time, totaling approximately 40 hours per week. Teaching hours for ABC School are _____, Monday through Friday. The remaining _____ hours are to be spent on garden maintenance, _____, and planning and executing projects at the Campuses. The garden instructor may also work these hours over the summer, with adjusted duties.

The garden instructor selected will have experience with similar school-based initiatives, lesson plan development and community engagement methods, and the ability to foster collaboration and best practices among colleagues the staff member. The ideal candidate is a certified teacher (or willing to complete a concurrent one-year teacher certification program) with previous experience in school garden education. Familiarity and experience with the Edible Schoolyard program, Life Labs or similar is a plus.

Compensation

Salary and Benefits: Commensurate with experience

Position Tasks

- Managing culinary garden, which grows produce for the school [cafeteria, teaching kitchen, etc]
- Coordinating school-wide garden volunteer days.
- Managing and/or ensuring the garden is maintained and cared for during the summer months.
- Working with the school's academic coaches to develop lessons that integrate the regular education curriculum into the outdoor garden learning spaces.
- Working with the school cafeteria manager to create planting plans for produce to be used in school lunches.
- Working with the home economics teacher and the cooking instructor to grow herbs and produce which will be used as part of the student's curriculum and to sell at local farmer's markets.
- Working with other area school garden and cooking programs to participate in joint gardening education events.
- Participating in the School Wellness Committee with the Program Cooking Instructor
- Assisting with grant writing and award competitions to help bring revenue and recognition to the ABC garden program.
- Planning and delivering gardening lessons to K-8 grade students in conjunction with the students' school day curriculum and common core standards.
- Attending professional development trainings as mandated by the district and/or school.
- Follow State and Child Development Center procedures and policies for safe operation of the program.

Experience***Preferred***

- Bachelor of Education (B. Ed) with a focus on the sciences of botany or biology, or a focus on applied environmental studies.
- Experience building, managing, and/or maintaining an urban edible garden.
- Serve safe certified.
- Demonstrated experience in building, growing, and maintaining program outcomes.
- Experience in community outreach and building both within the school environment and the community of farmers and chefs.

Requirements

- State teaching certification.
- Bachelor's degree (BA) or equivalent work experience in a K-8 school environment.
- Ability to pass a background check.
- Horticultural knowledge.
- Demonstrated ability to implement, track, and report over all program goals and outcomes.

Skills and Characteristics

- **Attributes:** Knowledgeable about gardening and cooking, visionary, passionate about working with children, holistic education and the program's vision, creative, detail oriented, patient, entrepreneurial, flexible, personable.
- Desire to work as a team player with ABC School teachers and staff.
- Ability to interact professionally with parents and community members.
- Positive attitude and very strong work ethic.
- Ability to handle calmly and efficiently situations ranging from routine to emergency.

[INSERT SCHOOL LOGO]

POSITION: K-8 Cooking Instructor

School Background

ABC School is a high performing public school with a mission to educate, empower, and enable all students to become thoughtful, contributing citizens who can succeed in an ever-changing world. In 2017, ABC School was awarded a grant to implement Emeril's Culinary Garden & Teaching Kitchen, a signature program of the Emeril Lagasse Foundation that enriches the lives of kids through a fun, fresh perspective on food. We're so proud to be a partner of this initiative and bring this quality program to our community.

Program Background

Emeril's Culinary Garden & Teaching Kitchen is a national education initiative that integrates culinary garden and teaching kitchens in schools to create interactive learning environments centered on food. The program has four key pillars, which guide the overall goals and desired outcomes of its implementation: appreciation for the source of food; development of life skills through food; nutrition education; development of culinary skills.

Position Description

The K-8 cooking instructor will be responsible for leading K-8 cooking classes and integrating content across core academic subjects and gardening courses. The cooking instructor will collaborate on lesson development with academic teachers and the garden instructor as well as plan and oversee family and community cooking nights at the school.

In collaboration with the garden instructor and the school's wellness committee, the cooking instructor will lead efforts developing annual action plans to set school wide program goals for cooking classes.

This position is full time, totaling approximately 30 hours per week (20 hours of classroom instruction and 10 hours of planning and preparation). Teaching hours for ABC School are 7:30am -3:00pm, Monday through Friday.

The cooking instructor selected will have experience with teaching elementary and middle school students cooking education and basic techniques in a classroom environment, have working knowledge with similar nutrition education and school-based initiatives, cooking education lesson plan development and community engagement methods, and the ability to foster collaboration and best practices among colleagues the staff members. The ideal candidate is a certified teacher (or willing to complete a concurrent one-year teacher certification program) with previous experience in cooking education.

Compensation

Salary and Benefits: Commensurate with experience

Position Tasks

- Managing teaching kitchen, which grows produce for the school [cafeteria, teaching kitchen, etc].
- Managing "Learning Garden" which is dedicated to pollinators and herbs.
- Managing the Interactive Learning Garden which contains 8 raised beds in various geometric shapes and 8 rectangular "experimental" beds used by science classes for experiments as well as eight 3-dimensional geometric sculptures, a coordinate plane and a walk-upon number line border.
- Work with the school's academic coaches to develop lessons that integrate the regular education curriculum into the teaching kitchen learning space.
- Work with the home economics teacher to plan student projects to sell at local farmer's markets.
- Work with other area school programs and/or area chefs to participate in edible education events.
- Participate in the school wellness committee with the garden instructor.
- Assist school fundraising team with grant writing and award competitions to help bring revenue and recognition to the ABC garden program.
- Plan and deliver cooking lessons to K-8 grade students in conjunction with the students' school day curriculum and Common Core standards;
- Attend professional development trainings as mandated by the school
- Follow State Education and Health Department procedures and policies for safe operation of the program.

Experience**Preferred**

- Bachelor of Education (B. Ed).
- 3-5 years professional cooking experience.
- Serve safe certification.
- Demonstrated experience in seasonal cooking and food education in a K-8 school-based environment.

Requirements

- State teaching certification.
- Bachelor's degree (BA) or equivalent work experience in a K-8 school environment.
- Ability to pass a background check.
- Culinary knowledge.

Skills and Characteristics

- Attributes: Knowledgeable about gardening and cooking, visionary, passionate about working with children, holistic education and the program's vision, creative, detail oriented, patient, entrepreneurial, flexible, personable.
- Desire to work as a team player with ABC School teachers and staff.
- Ability to interact professionally with parents and community members.
- Positive attitude and very strong work ethic.
- Ability to handle calmly and efficiently situations ranging from routine to emergency.

TRACKING GARDEN CHANGES—PLANT GROWTH

Use this sheet to track how tall a plant in the garden grows over time. Each month, measure your plant and color in the boxes to mark how tall your plant has grown. Has it grown more or less than last month?

Name: _____ Date: _____ Grade: _____

Tracking: _____

12 ft											
10 ft											
8 ft											
6 ft											
4 ft											
2 ft											
1 ft											
	August	September	October	November	December	January	February	March	April	May	June



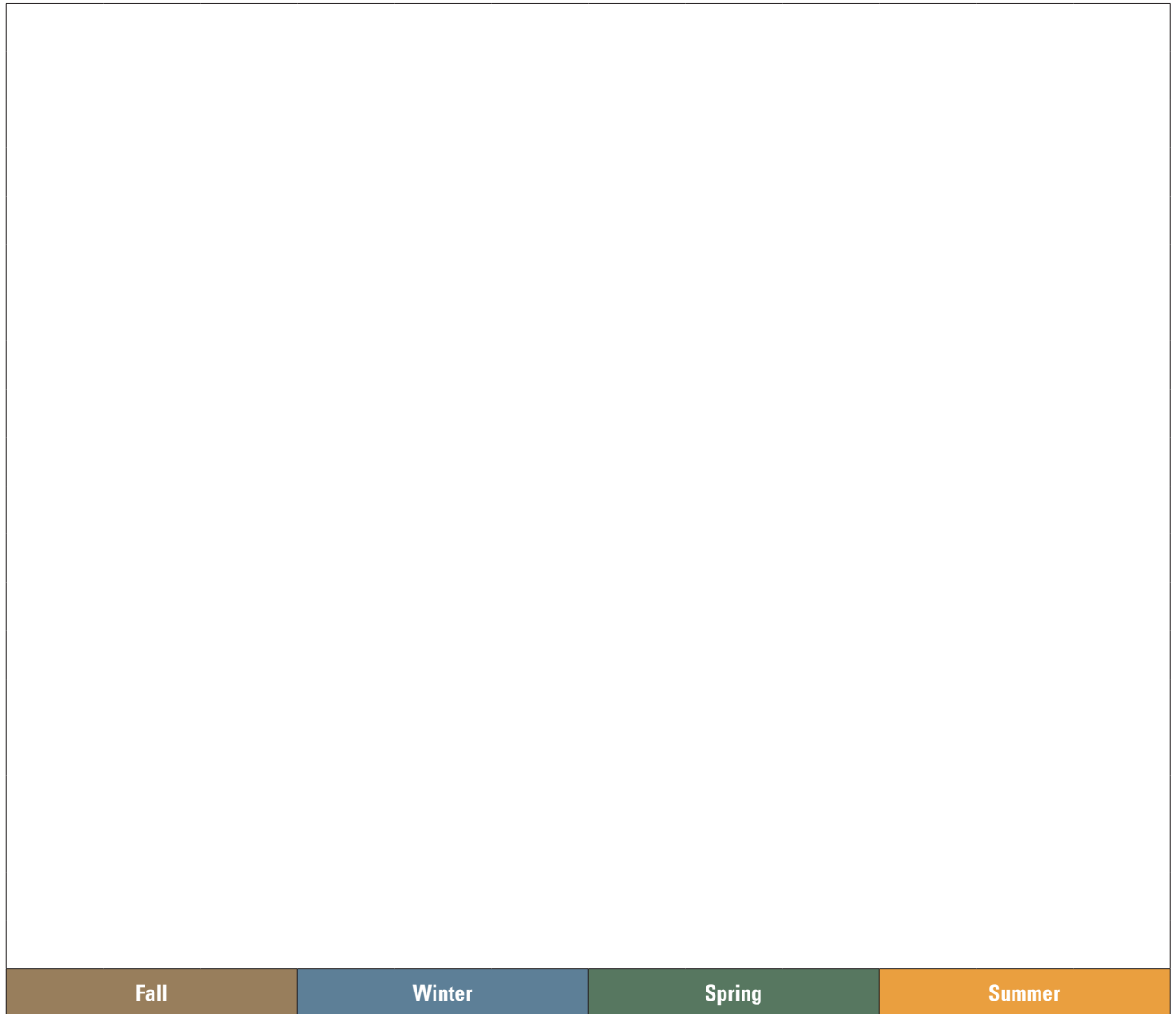
TRACKING GARDEN CHANGES

Track changes in the garden over time. Identify what you will track (a fruit, a plant, a type of bug, etc.). Then, fill in the blanks on the left side of the graph to measure the change. Finally, draw what you are tracking in the box provided.

Name: _____ Date: _____ Grade: _____

Tracking: _____

Draw a picture
in the space below



TRACKING GARDEN CHANGES—INSECT COUNT






































































































































































How many insects are in your garden? Use this sheet to count how many insects are in the garden. Do you have more or less than the last time you counted?

Name: _____

Date: _____

Grade: _____

Insect(s) Tracking: _____

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
August															
September															
October															
November															
December															
January															
February															
March															
April															
May															
June															

Use different color sticky dots for each group, and have individuals from the group place their sticky dots in the column that represents their preference.

How many have never tried this before?

TASTE TEST OF TANGERINE

GROUP #1: 

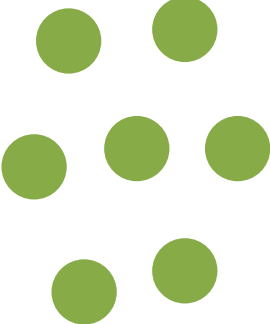
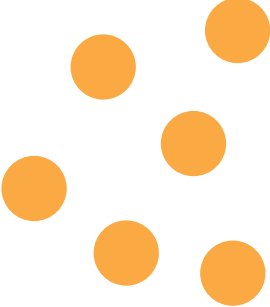
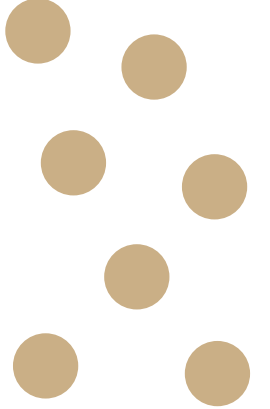
7 / 7

GROUP #2: 

6 / 6

GROUP #3: 

7 / 7

		  
<p>I liked it! But not my favorite</p>	<p>I tried it and I liked it!</p>	<p>I tried it and I LOVE IT!</p>

COMPARATIVE TASTE TEST CHART WITH STICKY DOTS

Use different color sticky dots for each group, and have individuals from the group place their sticky dots in the column that represents their preference.

*How many
have never tried
this before?*

TASTE TEST OF _____

GROUP #1:

___/___

GROUP #2:

___/___

GROUP #3:

___/___

I liked it! But not my favorite	I tried it and I liked it!	I tried it and I LOVE IT!

STUDENT NAME: _____ DATE: _____

CULTURAL OR HISTORICAL SIGNIFICANCE:

NUTRITIONAL VALUE:

OPPORTUNITIES TO INCORPORATE LOCAL/SEASONAL PRODUCE:

MODIFICATIONS OR SUGGESTIONS ON COOKING IT FOR NEXT TIME:

FOOD CARDS



APPLES



GRAPES

FOOD CARDS



FOOD CARDS

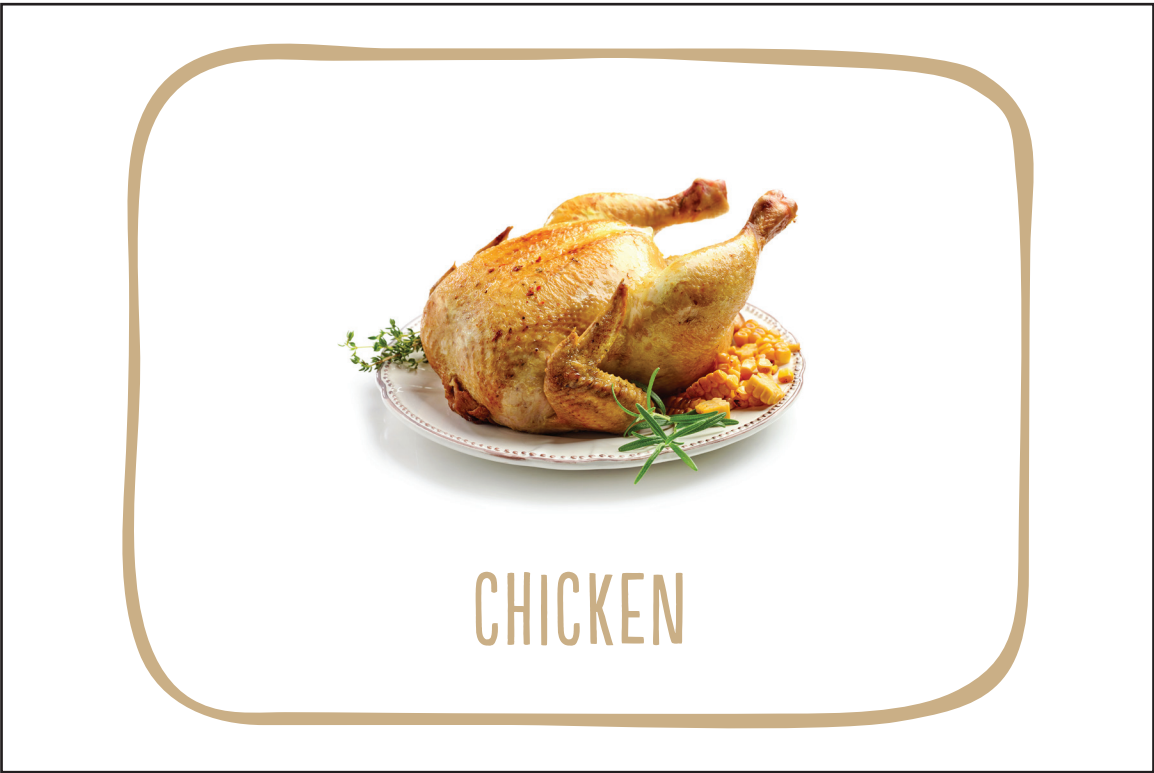


MIXED VEGETABLES



BEANS

FOOD CARDS



FOOD CARDS



WHOLE WHEAT BREAD



BROWN RICE



LESSON TITLE

Garden

EST. TIME ___ SEASON F W SP S LOCATION INDOOR OUTDOOR GRADE ___ LESSON # ___

SUBMITTED BY:

Name _____ Email _____

School _____

? ESSENTIAL QUESTION(S)

Insert here the big-picture, conceptual question the students will be exploring and working toward answering in this lesson.

✂ MATERIALS

Insert here

- Things that May Be Growing in the Garden
- Things to Bring Out to the Garden
- Handouts

Abc VOCABULARY

Insert here new words to define before the lesson (for the teacher/student).

✓ ASSESSMENT

Insert here tools to assess student learning and development of life skills

- Observational Checklist
- Student Journals

PREPARATION

(INSERT ESTIMATED TIME ____)

Insert here the steps the educator will need to take to prepare for the lesson.

TEACHER BACKGROUND

Insert here any major concepts the educator needs to know to teach this lesson effectively.

LESSON DESCRIPTION

Insert here a 1-2 sentence overview of the lesson, describing what students will do.

LEARNING OBJECTIVES

Insert here the learning objectives from the Scope and Sequence that are addressed in this lesson, making sure to include:

- Content Learning Objectives
- Life Skills Learning Objectives

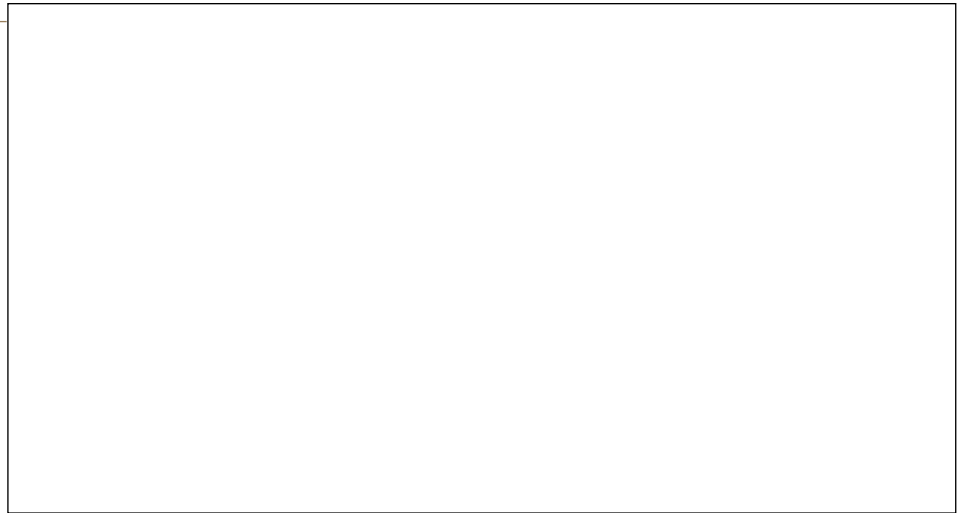
ACADEMIC STANDARD CONNECTIONS

Insert here connections to Academic Standards from the Scope and Sequence, as well as any relevant state standards for English Language Arts, Social Studies, Math, Science, Art, etc.



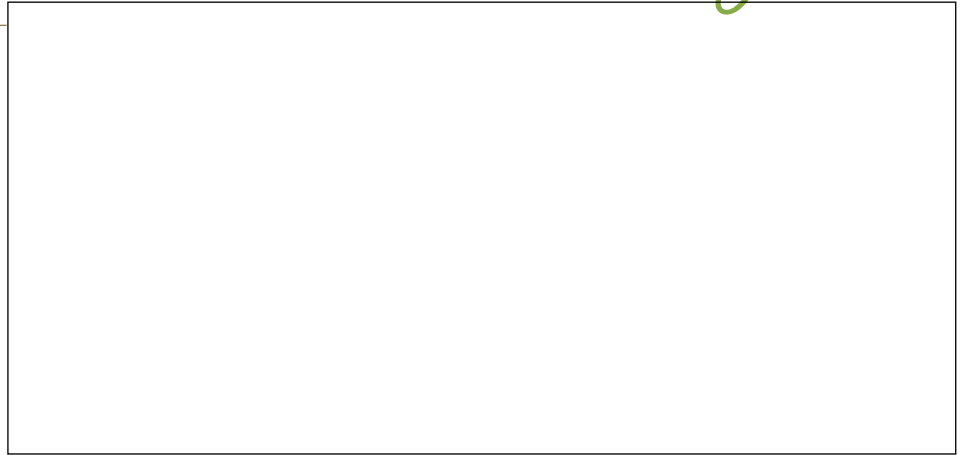
HEALTH STANDARD CONNECTIONS

Insert here connections to the Health Standards from the Scope and Sequence, as well as any state health standards.



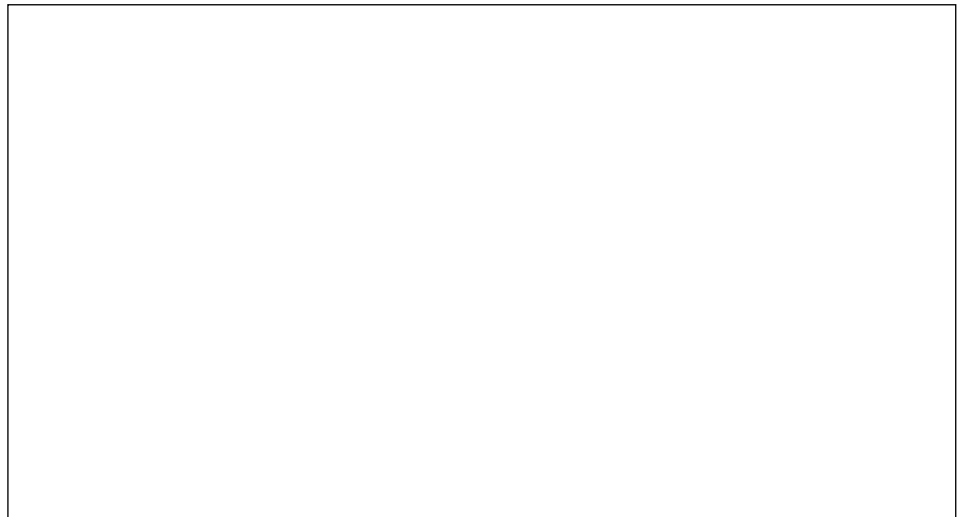
CULTIVATE CURIOSITY *engage*
(INSERT ESTIMATED TIME ___)

Insert here a “hook,” or an opening activity you will use to engage students with the essential question driving this lesson, connect to their prior knowledge on the subject, and inspire in them a thirst to learn more.



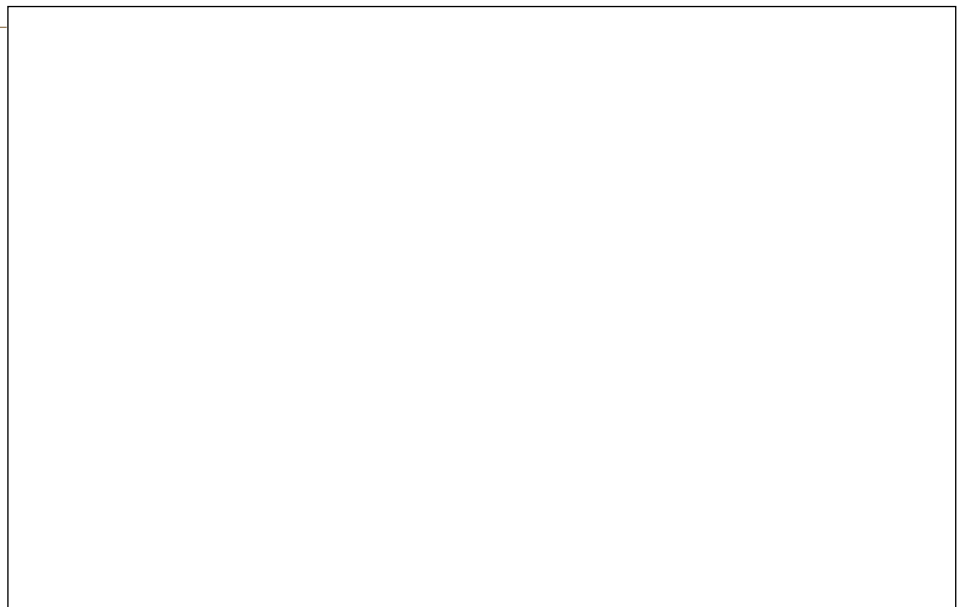
ROOT AROUND *explore*
(INSERT ESTIMATED TIME ___)

Insert here an opportunity that you will provide students to explore physical materials and/or open-ended questions related to the lesson topic. Ensure time for students to make discoveries and raise questions.



GROW UNDERSTANDING *explain*
(INSERT ESTIMATED TIME ___)

Insert here the steps for leading a discussion and introducing new information to students once they are fully engaged with the topic and have questions and discoveries to share. When introducing new, important vocabulary to students, write the terms in CAPITALS and define them.





OBSERVE THE FRUITS *elaborate*

(INSERT ESTIMATED TIME ___)

Insert here an opportunity for students to apply new learning in a meaningful, real-world context, and an opportunity for you to evaluate how well they have achieved the learning outcomes. Remember to use the Observational Checklist while they are working to assess students' development of Personal and Community Life Skills.

REFLECT *evaluate*

(INSERT ESTIMATED TIME ___)

Insert here guiding questions to engage students in a reflective discussion about what they've learned, and also about collaboration, communication, or other Life Skills they practiced.



ADAPTING FOR INDOORS

Insert here ideas for making this lesson work indoors in inclement weather.

CONNECTIONS TO KITCHEN LESSONS

Insert here opportunities to connect with specific kitchen lessons from the Scope and Sequence, or general ideas for connecting with the kitchen.

POSSIBLE EXTENSIONS

Insert here possible lesson extensions from the Scope and Sequence for the classroom, cafeteria, community, or BAM! Box connections; or any other ideas for extensions.

ADDITIONAL RESOURCES

List here any additional, relevant resources that might be useful for teaching this lesson, such as links to visual aids or other, published lesson plans.

OTHER COMMENTS

List here any additional comments

Please complete form and email to programs@emeril.org

See garden lesson plans in Instruction section for examples of how to develop each of the lesson plan key elements outlined in this template.



LESSON TITLE

Kitchen

EST. TIME ____ SEASON F W SP S TYPE COOKING GRADE ____ LESSON # ____

SUBMITTED BY:

Name _____ Email _____

School _____



ESSENTIAL QUESTION(S)

Insert here the big-picture, conceptual question the students will be exploring and working toward answering in this lesson.



VOCABULARY

Insert here new words to define before the lesson (for the teacher/student).



ASSESSMENT

Insert here tools to assess student learning and development of life skills

- Observational Checklist
- Student Journals



LESSON MATERIAL LIST

Materials for

Lesson Introduction

Insert materials for lesson introduction making sure to include recipes, handouts and visual aids needed for the lesson.

Equipment

Insert equipment needed for the lesson (listed in recipe)

<i>For Each Group of 10</i>	<i>For Whole Class</i>

Ingredients

Insert food ingredients needed for the lesson making sure to include a list of items that may be found in the garden.

Materials for

Enjoying the Food

Insert materials needed for enjoying the food.

Materials for Cleaning Up

Insert materials needed for cleaning up.

PREPARATION

(INSERT ESTIMATED TIME ___)

Insert here the steps you will need to take to prepare for the lesson, organized into the following sub-categories:

- Set up for the lesson introduction
- Set up for cooking, including specific steps for preparing different stations when relevant
- Set up for enjoying the food
- Set up for clean-up

TEACHER BACKGROUND

Insert here major concepts you need to know to teach this lesson effectively.

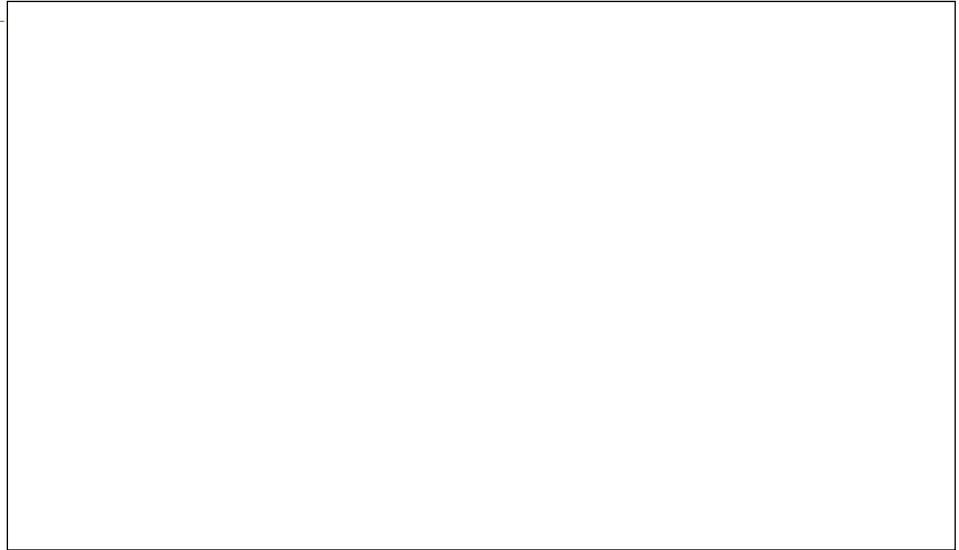
LESSON DESCRIPTION

Insert here a 1-2 sentence overview of the lesson, describing what students will do.

LEARNING OBJECTIVES

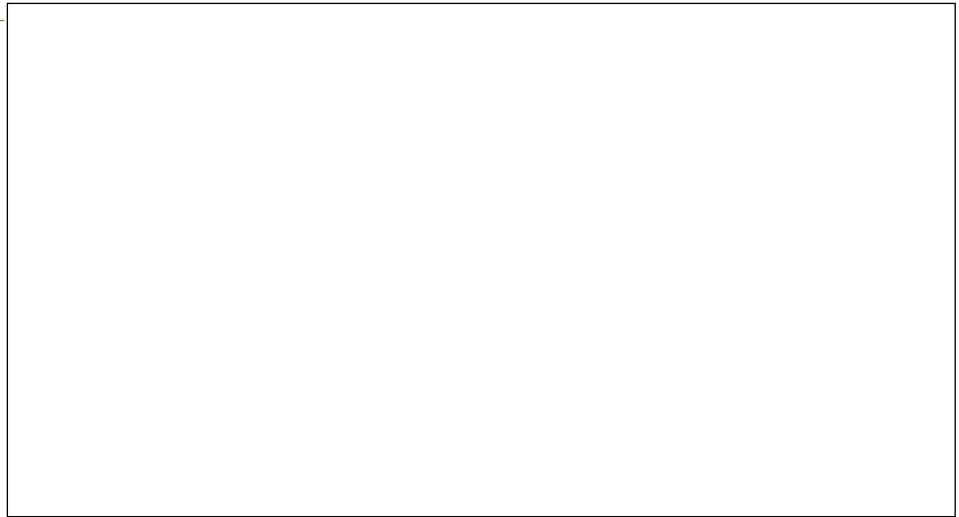
Insert here the the learning objectives from the Scope and Sequence that are addressed in this lesson, making sure to include:

- Content Learning Objectives
- Life Skills Learning Objectives



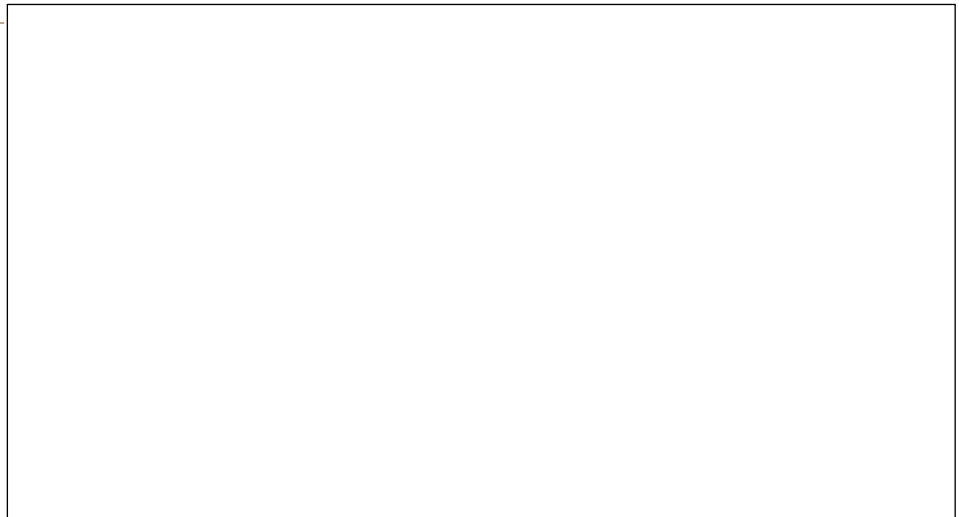
ACADEMIC STANDARD CONNECTIONS

Insert here connections to Academic Standards from the Scope and Sequence, as well as any relevant state standards for English Language Arts, Social Studies, Math, Science, Art, etc.



HEALTH STANDARD CONNECTIONS

Insert here connections to the Health Standards from the Scope and Sequence, as well as any state health standards.



PREPARE TO COOK

(INSERT ESTIMATED TIME ___)

Insert here steps the students will need to take to prepare to cook, such as: tie hair back, wash hands, put on aprons (if relevant) and take their seats.

RECIPE INTRODUCTION

(INSERT ESTIMATED TIME ___)

Insert here a “hook,” or an opening activity you’ll use to engage students with the essential question driving this lesson, connect to their prior knowledge, and inspire excitement for what’s ahead.

REVIEW FAMILIAR SKILLS

(INSERT ESTIMATED TIME ___)

Insert here steps for reviewing any skills relevant to this recipe that students already know. Always include washing hands and other safety measures in addition to anything else relevant to the particular recipe.

DEMONSTRATE NEW TOOLS AND SKILLS

(INSERT ESTIMATED TIME ___)

Insert here steps for introducing any new tools and demonstrating any new skills students will be using in this recipe. For each new tool or skill, include steps for physically demonstrating proper technique in a place where every student can see you. When including new vocabulary, write the term in CAPITALS and define it here.

DIVVY UP TASKS

(INSERT ESTIMATED TIME ___)

Insert here steps for explaining who will complete each task. Divide tasks in such a way that every student can contribute actively to the recipe for the entire time allotted. This may involve assigning different tasks to different groups of students; explaining a rotation through various cooking stations; working assembly-line style; or the like.



COOK

(INSERT ESTIMATED TIME ___)

Insert here steps for keeping every student actively engaged in the cooking activity. Include ideas for “early finishers” in order to keep everyone involved the entire time.

Remember to use the Cooking and Cleaning Observational Checklist to assess student mastery of cooking skills.

ENJOY!

(INSERT ESTIMATED TIME ___)

Insert here steps for sharing the final product with all students and enjoying it together. When time is short, Enjoy and Reflect can happen simultaneously.



CLEAN UP

(INSERT ESTIMATED TIME ___)

Insert here a process for actively engaging every student in the clean-up process by dividing up tasks and/or assigning each group a particular station to clean up.

Use the Observational Checklist to assess students’ mastery of cleaning skills.

REFLECT

(INSERT ESTIMATED TIME ____)

Insert here guiding questions to engage students in a reflective discussion about their experience with cooking and enjoying a new food. Focus questions on what they've learned and other Life Skills they practiced such as collaboration and communication.

CONNECTIONS TO GARDEN LESSONS

Insert here opportunities to connect with specific garden lessons from the Scope and Sequence or general ideas for connecting with the garden.

POSSIBLE EXTENSIONS

Insert here possible lesson extensions from the Scope and Sequence for the classroom, cafeteria, community, or BAM! Box connections; or any other ideas for extensions.

ADDITIONAL RESOURCES

List here any additional, relevant resources that might be useful for teaching this lesson, such as links to visual aids or other, published lesson plans.

OTHER COMMENTS

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TITLE

Kitchen

EST. TIME ____ SEASON F W SP S TYPE COOKING CONCEPT GRADE ____ LESSON # ____

SUBMITTED BY:

Name _____ Email _____

School _____

? ESSENTIAL QUESTION(S)

Insert here the big-picture, conceptual question the students will be exploring and working toward answering in this lesson.



MATERIALS

- Insert here
- Recipe
 - Handouts / Visual Aids
 - Tableware
 - Cleaning tools
 - Other _____

Abc VOCABULARY

Insert here new words to define before the lesson (for the teacher/student).

✓ ASSESSMENT

- Insert here tools to assess student learning and development of life skills
- Observational Checklist
 - Student Journals

PREPARATION

(INSERT ESTIMATED TIME _____)

Insert here the steps you will need to take to prepare for the lesson.

TEACHER BACKGROUND

Insert here any major concepts you need to know to teach this lesson effectively.

LESSON DESCRIPTION

Insert here a 1-2 sentence overview of the lesson, describing what students will do.

LEARNING OBJECTIVES

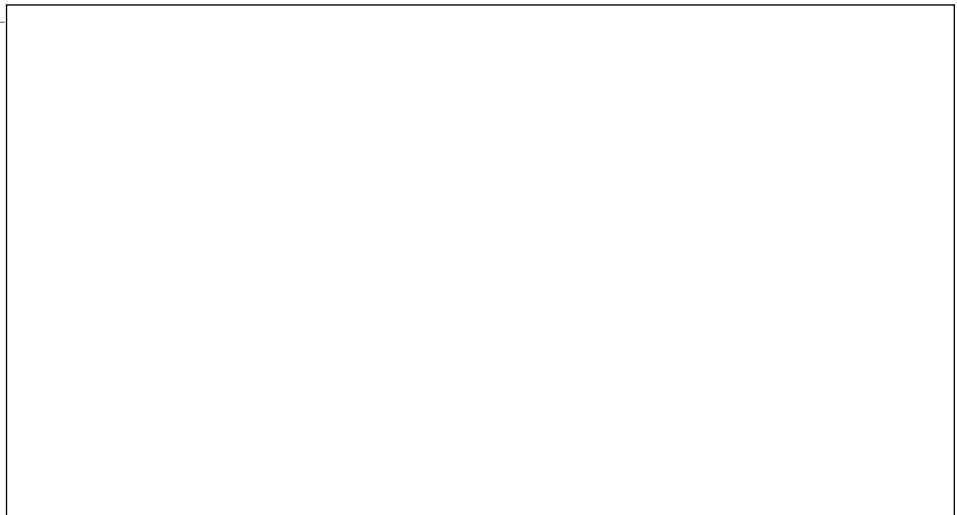
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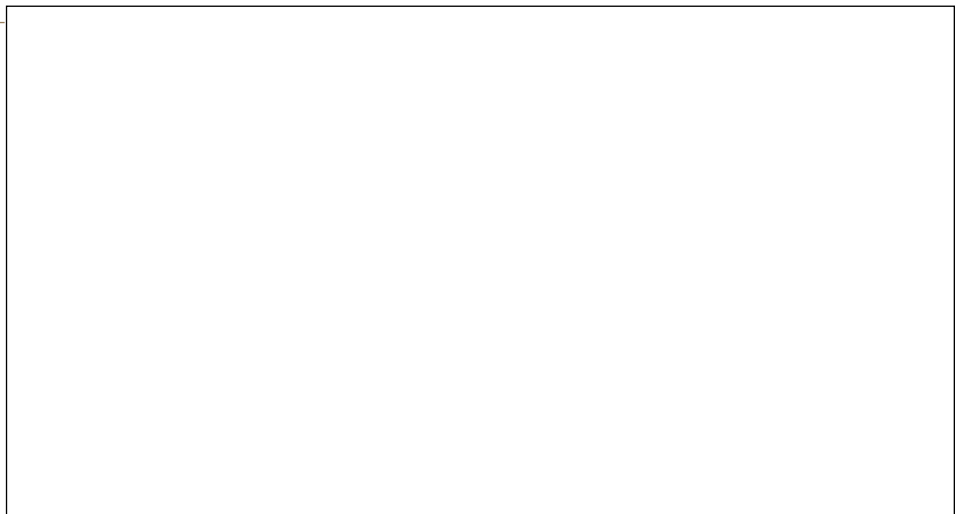
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HEALTH STANDARD CONNECTIONS

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IGNITE INTEREST *engage*

(INSERT ESTIMATED TIME___)

Insert here a “hook,” or an opening activity you will use to engage students with the essential question driving this lesson, connect to their prior knowledge on the subject, and inspire in them a thirst to learn more.

STIR DISCOVERIES *explore*

(INSERT ESTIMATED TIME___)

Insert here an opportunity that you will provide students to explore physical materials and/or open-ended questions related to the lesson topic. Ensure time for students to make discoveries and raise questions.

CLARIFY NEW IDEAS *explain*

(INSERT ESTIMATED TIME___)

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WATCH IT RISE *elaborate*

(INSERT ESTIMATED TIME ___)

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REFLECT *evaluate*

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