

7th Grade Science Garden Scope and Sequence

Track Name	Main Focus	Edible Education Categories	ESY Standards	Academics
Cooking & Gardening	Students will focus on gardening and cooking activities, like transplanting the beet patch, the sowing of cover crop and preparation of kale pesto. Students will work together and participate in team building and trust games.	<p>NOURISHMENT</p> <p>The concept of soil fertility is discussed. Healthy soil translates to healthy plants, thus the plants we eat from the garden, helps to give us nourishment</p>	<p>Edible Schoolyard 3.0 Garden 7th grade:</p> <p>Techniques 2.4: Harvest and prepare crops with increased independence; understand the seed to table concept, begin to recognize ripeness and understand seasonality.</p> <p>Techniques 2.5: Understand the purpose of soil cultivation, edge and turn beds with increased independence; recognize good soil structure; and assess when amendments are needed for soil.</p> <p>Techniques 2.6: Students sow seeds and transplant seedlings with increased independence;</p>	<p>Next Generation Science Standards Middle School Disciplinary Core Ideas: LS1.B: Growth and Development of Organisms LS3.A: Inheritance of Traits LS3.B: Variation of Traits</p> <p>Common Core State Standards, English Language Arts and Literacy, Grade 7 RST.7.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or performing technical tasks. RST.7.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words. SL.7.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 7 topics, texts, and issues, building on others ideas and expressing their own clearly. SL.7.1.b Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed. SL7.1.c Pose questions that elicit elaboration and respond to others questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. SL.7.1.d Acknowledge new information expressed by others and, when warranted, modify their own views. SL7.2 Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study. SL.7.4 Present claims and findings, emphasizing</p>
Climate Change	Students will explore the garden through the lens of California's climate and discuss how we can adapt to climate change and the effects of global warming in our region.	<p>SUSTAINABILITY</p> <p>Two planetary systems interact: 1. water cycle and 2. greenhouse effect</p> <p>How do these systems interact to effect California's drought? Explore areas of the garden that demonstrate strategies to conserve water and increase drought resilience Understand drought resilience</p>	<p>Edible Schoolyard 3.0 Garden 7th grade:</p> <p>Concept 13: Are mindful of bio-diversity as it pertains to the ecology of the garden, the development of food throughout history, and within our own faculty and student body. We explore the garden as an ecosystem and understand that embracing and preserving diversity builds a strong, healthy, and resilient planet.</p>	
Mini-Habitats	Students will work with nature to improve the garden by creating several unique mini-habitats, using permaculture principles. The focus will be on digging swales, which capture and hold rain water in their basins, thereby increasing ecosystem resilience in times of drought.	<p>LIFE SKILLS</p> <p>Focusing on listening, speaking and following directions. Students are encouraged to explore the many mini-habitats in the garden and make connections. RIG poster is reintroduced and behavioral expectations are highlighted.</p>	<p>Edible Schoolyard 3.0 Garden 7th grade:</p> <p>Concepts 9: Recognize the garden as a habitat for pollinators, understand the impact of pollination on our food supply, develop appropriate responses to them, and consider the multitude of habitats throughout the garden.</p> <p>Concepts 10: Acknowledge water as a precious resource that is intrinsic to all living organisms, explore methods of water conservation, and are encouraged to do the same in their own lives as well.</p>	

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All About Chickens	Students will observe chickens; discuss their evolution, characteristics and biological systems. Students will learn how important their role is in the garden ecosystem.	<p>COMMUNICATION</p> <p>Students learn information about chickens through experiments, visual aids, drawing, observations, and discussion.</p>	<p>Edible Schoolyard 3.0 Garden 7th grade:</p> <p>Concepts 7: Use observation and awareness to explore, investigate and be inquisitive learners in the garden. The garden classroom provides the opportunity for students to tap into their inherent curiosity about the natural world, observe patterns and connections and understand cause and effect.</p>	<p>salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation.</p> <p>SL.7.6 Adapt speech to a variety of contexts and tasks, demonstrating command of formal English when indicated or appropriate. (See grade 7 Language standards 1 and 3 on page 53 for specific expectations.)</p> <p>L7.1 Demonstrate command of the conventions of standard English grammar and usage when writing or speaking.</p> <p>L.7.1.a Explain the function of phrases and clauses in general and their function in specific sentences.</p> <p>L.7.1.b Choose among simple, compound, complex, and compound-complex sentences to signal differing relationships among ideas.</p> <p>L.7.1.c Place phrases and clauses within a sentence, recognizing and correcting misplaced and dangling modifiers.</p> <p>L.7.3 Use knowledge of language and its conventions when writing, speaking, reading, or listening.</p> <p>L.7.3.a Choose language that expresses ideas precisely and concisely, recognizing and eliminating wordiness and redundancy.</p> <p>L.7.6 Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.</p>
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Build A Nest	In honor of the Edible Schoolyard's 20 th anniversary, students will work together collecting natural building materials and weave sticks together to build a giant bird's nest!	<p>ACADEMICS</p> <p>Engagement in Science and Engineering Practices, Ask questions and define problems and develop and use models</p>	<p>Edible Schoolyard 3.0 ESY program:</p> <p>Concepts 8: Create an atmosphere of cooperation and unity. We elevate the class experience for all by offering and receiving encouragement, and welcoming the ideas and</p>	<p>Common Core State Standards, English Language Arts and Literacy, Grade 7</p> <p>RST.7.3 Follow precisely a multistep procedure when carrying out experiments, taking measurements, or</p>

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			contributions of others.	performing technical tasks.
Table Construction	Students will be responsible for building new tables and work-benches for the greenhouse plant propagation area. This will include measuring, cutting and hammering together the tables.	LIFE SKILLS Focusing on listening, speaking and following directions. Handling of tools like saws and hammers. RIG poster is reintroduced and behavioral expectations are highlighted.	Edible Schoolyard 3.0 Garden 7th grade: Techniques 2.1: Identify, use, care for, and begin to choose specific garden tools and equipment.	RST.7.7 Translate quantitative or technical information expressed in words in a text into visual form (e.g., a table or chart) and translate information expressed visually or mathematically (e.g., in an equation) into words. SL.7.1 Engage effectively in a range of collaborative discussions (one on one, in groups, and teacher led) with diverse partners on grade 7 topics, texts, and issues, building on others' ideas and expressing their own clearly. SL.7.1.b Follow rules for collegial discussions, track progress toward specific goals and deadlines, and define individual roles as needed.
Flower Power	Students will beautify the entrance to the Edible Schoolyard, known as our Herb Garden. Students will select from culinary, tea, medicinal and flowers for this project.	SUSTAINABILITY Focusing on biodiversity of plants and how that connects to all living organisms. The concept of ecosystems is emphasized and the caring for the natural world.		SL.7.1.c Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. • SL.7.1.d Acknowledge new information expressed by others and, when warranted, modify their own views. SL.7.2 Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study. SL.7.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation. SL.7.6 Adapt speech to a variety of contexts and to demonstrating command of formal English indicated or appropriate. (See grade 7 Language
Pole Bean Madness	Students will cultivate for the dried pole bean patch, using forks, shovels and pick axes. Students will use saws to cut bamboo in lengths for the beans to climb up on and sow the bean seeds in ground. Students will also spend a day harvesting and preparing the tasting for closing circle on the last day.	NOURISHMENT Tasting will be a prepared in the outdoor kitchen that will involve following a recipe to make a delicious salad wrap with ingredients harvested from the garden. Discussion about keeping a pantry with items like dried beans.	Edible Schoolyard 3.0 Garden program: Techniques 2.4: Harvest and prepare crops with increased independence; understand the seed to table concept, begin to recognize ripeness and understand seasonality. Techniques 2.5: Understand the purpose of soil cultivation, edge and turn beds with increased independence; recognize good soil structure; and assess when amendments are needed for soil. Techniques 2.6: Students sow seeds and transplant seedlings with increased independence; Edible Schoolyard 2.0 ESY program, grade 7: Technique 2.0: Follow a set of rituals and routines that help work go smoothly and develop into lifelong habits.	SL.7.1.c Pose questions that elicit elaboration and respond to others' questions and comments with relevant observations and ideas that bring the discussion back on topic as needed. • SL.7.1.d Acknowledge new information expressed by others and, when warranted, modify their own views. SL.7.2 Analyze the main ideas and supporting details presented in diverse media and formats (e.g., visually, quantitatively, orally) and explain how the ideas clarify a topic, text, or issue under study. SL.7.4 Present claims and findings, emphasizing salient points in a focused, coherent manner with pertinent descriptions, facts, details, and examples; use appropriate eye contact, adequate volume, and clear pronunciation. SL.7.6 Adapt speech to a variety of contexts and to demonstrating command of formal English indicated or appropriate. (See grade 7 Language

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HISTORY WALK 2015-2016						
	Lesson Name	Main Focus	Closing Activity	Produce	ESY Standard	Academic Standards
G7 - History Walk	<u>Civilizations of the Americas</u>	Foods and agricultural technologies of the Maya, Aztec and Inca civilizations	Question Share	Amaranth for Alegria, Cacao and vanilla for chocolate	<p><u>Edible Schoolyard 3.0 Garden 7th grade:</u> Concepts 7: Use observation and awareness to explore, investigate and be inquisitive learners in the garden. The garden classroom provides the opportunity for students to tap into their inherent curiosity about the natural world, observe patterns and connections and understand cause and effect.</p> <p><u>Edible Schoolyard 1.0 Tools 7th grade:</u> Concepts 2: Make positive contributions to small group discussions.</p>	<p><u>California History Social Science Standards, Grade 7</u> 7.7: Students compare and contrast the geographic, political, economic, religious, and social structures of the Meso-American and Andean civilizations 7.7.1: Study the locations, landforms, and climates of Mexico, Central America and South America and their effects on Mayan, Aztec and Incan economies, trade and development of urban societies</p>