

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
1. Honey Bees & Pollination		
K-2	<ul style="list-style-type: none"> The Amazing Honey Bee: Students investigate the three types of honey bee in a colony, identify their roles, and recognize honey bees as part of a community that works together. 	ELA : L.1, S.L.1, R.1 Science : K-ESS3-1, 1-LS1-1, 2-LS2-2, 2-LS4-1
3-5	<ul style="list-style-type: none"> Flower Power (Grades 3-5): Students observe physical characteristics of flowers and explore principles of pollination. 	ELA : L.6, S.L.2 Science : 3-LS3-2, 4-LS1-1
	<ul style="list-style-type: none"> Honey Bees: A Pollination Simulation: Students identify the parts of a honey bee, the stages of its life cycle, and its role in pollination. 	ELA : L.6, R.7, S.L.1, S.L.2 Science : 3-LS1-1, 4-LS1-1, 4-LS1-2
6-8	<ul style="list-style-type: none"> Flower Power (Grades 6-8): Students observe the anatomical structures of flowers and explain a flower's role in plant growth and reproduction as well as their connection to our food supply. 	ELA : L.6 Science : 7-MS-LS3-2, 8-MS-LS1-4 Agriscience : Plant Science Basics
	<ul style="list-style-type: none"> Mind Your Own Beeswax: Through project-based learning, students solve the problem of excess beeswax, a byproduct of honey bees, by developing a useful beeswax product and marketing their product to be sold in a local boutique or farmers market. 	ELA : S.L.1 Agriscience : Agribusiness
9-12	<ul style="list-style-type: none"> Fermentation of Honey: This lesson explains the processes of cellular respiration and fermentation and how it applies to the production and processing of honey. 	Math : MP4 Science : HS-LS1-7 Agriscience : Science Applications
	<ul style="list-style-type: none"> Honey as a Biomolecule: Students will learn about different types of carbohydrates, the role of enzymes in breaking down complex sugars into simple sugars, and how different sugars impact our perception of sweetness and may impact human health. 	ELA : R.4, SL1, SL2 Science : HS-LS1-7

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	<ul style="list-style-type: none"> • Preservation Power of Honey: Students will expand their knowledge of microbial growth and scientific food preservation methods to learn how honey can serve as an antibacterial agent. Students will learn how honey may be used as a preservative of milk in areas without access to electricity or refrigeration and how this preservation method relies on elements found specifically in honey that cannot be replicated with other sources of sugar. 	<p>ELA: R7 Health: Standard 5, Benchmark 5-H-2 Agriscience: Food Science</p>
2. Seed Germination: "Grow Gardens"		
K-2	<ul style="list-style-type: none"> • Farming in a Glove (Grades K-2): Students observe how a seed sprouts and investigate the conditions necessary for germination to occur. 	<p>ELA: SL1, W4 Math: MP5 Science: K-LS1-1, 2-LS2-1, 2-PS1-1</p>
	<ul style="list-style-type: none"> • How Does Your Garden Grow? (K-2): Students discover the needs of a seed to germinate and the needs of a plant to grow while exploring the life stages of a flowering plant. 	<p>ELA: R2, SL1 Science: 2-LS2-1 Health: Standard 7, Benchmark 7-E-1</p>
3-5	<ul style="list-style-type: none"> • Farming in a Glove (Grades 3-5): Students observe how a seed sprouts and investigate the conditions necessary for germination to occur. 	<p>ELA: SL1, W4 Math: MP5 Science: 3-LS1-1, 4-LS1-1, 5-LS1-1</p>
	<ul style="list-style-type: none"> • How Does Your Garden Grow? (3-5): Students synthesize what they know about soils, plants, and the environment to plan a garden, present their plans, and explain why they made the decisions that they did. 	<p>ELA: R1, SL1, SL4, W2, W10 Math: MP5 Science: 3-ESS2-2</p>
	<ul style="list-style-type: none"> • Topsy-Turvy Soybeans: Students observe how plants respond to gravity by germinating soybeans in a CD case and rotating the case as they grow. 	<p>ELA: L1, SL1 Science: 3-LS1-1, 5-LS1-1</p>
6-8	<ul style="list-style-type: none"> • Aeroponic Engineering and Vertical Farming (Grades 6-8): Students will use the <i>Engineering Design Process</i> to develop and construct an aeroponic garden to grow a food crop. Students will develop and apply an understanding of plant anatomy and physiology related to plant growth and ultimately discuss the possibilities and limitations of using vertical farming to produce our food. 	<p>ELA: L2, SL1, SL2, W7, W9 Science: 8-MS-ESS3-3 Agriscience: Plant Science</p>

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	<ul style="list-style-type: none"> • In Search of Essential Nutrients (Grades 6-8): In this lesson students will learn the definition of an essential element, compare and contrast the essential nutrient requirements of plants and humans, explain why plants cannot use elemental nitrogen found in the atmosphere, and identify the sources for each essential nutrient needed by plants. 	<p>ELA: L3, R1, R4, SL5, SL6 Science: 6-MS-LS2-1, 6-MS-LS2-2 Agriscience: Plant Science</p>
9-12	<ul style="list-style-type: none"> • Aeroponic Engineering and Vertical Farming (Grades 9-12): Students will use the <i>Engineering Design Process</i> to develop and construct an aeroponic garden to grow a food crop. Students will develop and apply an understanding of plant anatomy and physiology related to plant growth and ultimately discuss the possibilities and limitations of using vertical farming to produce our food. 	<p>ELA: R4, SL1, SL2, SL4 Agriscience: Plant Science</p>
	<ul style="list-style-type: none"> • In Search of Essential Nutrients (Grades 9-12): Students explore the meaning of essential elements and use periodic tables to compare the elements that are essential to people and plants. Students discover where in the environment plants obtain each of their essential elements. 	<p>ELA: R1, SL1, SL2 Science: HS-ESS3-4, HS-LS2-4 Agriscience: Plant Science</p>
<h3>3. Seeds: My Little Sprout House</h3>		
K-2	<ul style="list-style-type: none"> • A Garden Plot—The Tale of Peter Rabbit: Students identify foods grown in a garden, observe various types of seed, and grow their own “milk jug” garden. Students listen to the <i>Tale of Peter Rabbit</i>, by Beatrix Potter and investigate produce that is grown in gardens or on farms. 	<p>ELA: L1, R3, R4, SL1, W2, W3, W7 Science: K-ESS3-1 Health: Standard 7, Benchmark 7-E-1</p>
	<ul style="list-style-type: none"> • Bean Seed Cycle: Students explore how soybeans are grown by farmers, examine seed anatomy through a seed dissection activity, and observe the germination of a soybean plant. 	<p>ELA: L6 Science: K-LS1-1, 2-LS4-1</p>
	<ul style="list-style-type: none"> • Growing Plants in Science and Literature, More Than an Empty Pot (Grades K-2): Students use the story of The Empty Pot to explore literature and science, practicing story mapping and examine the needs of plants and the importance of soil and water. Like the characters in the story, students plant and observe the growth of seeds. 	<p>ELA: R2 Science: K-LS1-1</p>
	<ul style="list-style-type: none"> • My Little Seed House and Seed Book: Students observe the growth and development of seeds and explore what conditions are necessary for seeds to germinate. 	<p>ELA: R1 Science: K-LS1-1</p>

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	<ul style="list-style-type: none"> • Sunflower Life Cycles: Students observe the growth and development of sunflowers, identify how sunflower seeds are used, and make a paper plate sunflower to illustrate the life cycle of the sunflower. 	ELA : L1 Science : K-ESS3-1
	<ul style="list-style-type: none"> • Supreme Seeds: Students observe various types of seed, discover the many uses of seeds, taste edible seeds, and make a seed mosaic. 	ELA : R10, SL1 Health : Standard 7, Benchmarks 7-E-1 & 7-E-2
	<ul style="list-style-type: none"> • The Seed Match: Students investigate where food comes from, the parts of plants that we eat, and the difference between fruits and vegetables. 	ELA : R1 Science : K-LS1-1, 1-LS1-2
3-5	<ul style="list-style-type: none"> • Get Growing: Students design a green bean planter and explore planting specifications for green bean seeds. 	ELA : SL1 Math : MP4
	<ul style="list-style-type: none"> • Growing Plants in Science and Literature, More Than an Empty Pot (Grades 3-5): Students use the story of <i>The Empty Pot</i> to explore literature and science, practicing story mapping and examine the needs of plants and the importance of soil and water. Like the characters in the story, students plant and observe the growth of seeds. 	ELA : R2 Science : 3-LS4-3, 5-LS1-1
	<ul style="list-style-type: none"> • Inherited Traits in the Living Corn Necklace (Grades 3-5): Students observe the growth of Indian corn and popcorn seeds, observe similarities and differences between the two varieties, and discuss heredity. 	ELA : L1, R1, SL1 Science : 3-LS3-1
	<ul style="list-style-type: none"> • Magic Beans and Giant Plants: Students plant seeds, make considerations about which conditions affect plant growth, design and conduct experiments using a problem-solving process, and compare and contrast to understand the parameters which influence the health and growth of living things. 	ELA : SL3 Science : 3-LS1-1, 5-LS1-1, 5-PS3-1
	<ul style="list-style-type: none"> • Seeds, Miraculous Seeds: Students dissect seeds, identify the anatomy and function of seed parts, and classify seeds as monocots or dicots. 	ELA : L1, R1, R2, SL1 Science : 3-LS1-1, 4-LS1-1, 5-LS1-1
6-8	<ul style="list-style-type: none"> • Inherited Traits in the Living Corn Necklace (Grades 6-8): Students will observe the growth of Indian corn and popcorn seeds, observe similarities and differences between the two varieties, and discuss heredity. 	ELA : L6 Science : 7-MS-LS3-2, 7-MS-LS4-5 Agriscience : Plant Science
	<ul style="list-style-type: none"> • Plant Propagation: Students will learn about two types of plant propagation—seed planting (sexual) and stem cuttings (asexual) and recognize the genetic differences in these processes, as well as the advantages and disadvantages of each method. 	ELA : SL2 Science : 7-MS-LS3-2, 8-MS-LS1-4 Agriscience : Plant Science

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9-12	<ul style="list-style-type: none"> • Melons, Mitosis, and Meiosis: Students apply the steps of mitosis and meiosis to learn about the production of both seeded and seedless watermelon. Students will learn about the discovery of colchicine, which made seedless watermelon possible and use modeling clay and beans to model meiosis and mitosis. 	<p>ELA: L4, R4, R7, SL1, SL5, W2, W3 Science: HS-LS1-1, HS-LS3-1, HS-LS3-3 Agriscience: Science Applications</p>
	<ul style="list-style-type: none"> • The Science of GMOs: Students will map the scientific process of creating a bioengineered (GMO) plant, compare bioengineered soybean seeds to conventional soybean seeds, describe the impact weeds have on plant growth, and understand how a bioengineered seed can help farmers manage weeds. 	<p>ELA: L6, SL1, SL3 Science: HS-LS1-1, HS-LS3-1 Agriscience: Plant Science</p>
4. Herb Garden & Cucumber Dill Dip		
K-2	<ul style="list-style-type: none"> • A Taste of Leafy Greens: Students explore a variety of greens to identify their structure and function in plant growth and prepare, cook, differentiate, and enjoy the health benefits leafy greens have to offer. 	<p>ELA: R7, SL1 Science: 1-LS1-1 Health: Standards 1 & 7, Benchmarks 1-E-1 & 7-E-1</p>
	<ul style="list-style-type: none"> • Eating Plants: Students identify the structure and function of six plant parts and classify fruits and vegetables according to which parts of the plants are edible. 	<p>ELA: L6, SL2 Science: K-ESS3-1, K-LS1-1, 1-LS1-1 Health: Standard 7, Benchmark 7-E-1</p>
	<ul style="list-style-type: none"> • Homegrown in Your State: Fruits and Vegetables: Students explore their state's specialty crops, discover how food gets from the farm to the table, discuss the importance of eating fruits and vegetables every day. 	<p>ELA: SL1 Social Studies: K.11, 1.31, 2.17, 2.26</p>
	<ul style="list-style-type: none"> • Understanding MyPlate (Grades K-2): Students explore appropriate serving sizes and determine how to make healthy dietary decisions by identifying the components of nutrition as illustrated by MyPlate. 	<p>ELA: R7, SL1, SL2 Health: Standard 1, Benchmark 1-E-1, Standard 7, Benchmark 7-E-1</p>
3-5	<ul style="list-style-type: none"> • How Does Your Garden Grow? (Grades 3-5): Students synthesize what they know about soils, plants, and the environment to plan a garden, present their plans, and explain why they made the decisions that they did. 	<p>ELA: R1, SL1, SL4, W2, W10 Math: MP5 Science: 3-ESS2-2</p>
	<ul style="list-style-type: none"> • My Life as a Fruit or Vegetable: Students explore the production and distribution of fresh produce. 	<p>ELA: L1, R4, R9, W3, W4 Health: Standard 3, Benchmark 3-E-2, Standard 5, Benchmark 5-E-1</p>

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	<ul style="list-style-type: none"> • Tasty Testing: Students discover the geographic regions where basil, oregano, and cilantro have cultural significance, understand the role of evaporation in herb drying, and recognize the different properties of dried and fresh herbs. • Understanding MyPlate (Grades 3-5): Students explore appropriate serving sizes and learn how to make healthy dietary decisions by understanding the components of nutrition as illustrated by MyPlate. • What's on MyPlate? (Grades 3-5): Students explore what it means to eat a healthy diet by comparing the foods they typically eat in a day with the recommendations of MyPlate. 	<p>ELA: R1, SL1, SL2 Math: MP4, MP5 Social Studies: 3.19, 4.6, 5.6</p> <p>ELA: R7, SL1, SL2 Health: Standard 1, Benchmark 1-E-1, Standard 3, Benchmark 3-E-2, Standard 5, Benchmark 5-E-1</p> <p>ELA: SL2 Health: Standard 1, Benchmark 1-E-1</p>
6-8	<ul style="list-style-type: none"> • Understanding MyPlate (Grades 6-8): Students will explore appropriate serving size and learn how to make good dietary decisions by understanding the components of nutrition as illustrated by MyPlate. 	<p>ELA: L6 Health: Standard 1, Benchmark 1-M-2, Standard 5, Standard 6, GLE 6-M-1.1</p>
	<ul style="list-style-type: none"> • Water Ops for Growing: Through project-based learning, students design and create a smart watering system for a small herb garden. 	<p>ELA: SL1 Math: MP1, MP4</p>
	<ul style="list-style-type: none"> • What's on MyPlate? (Grades 6-8): Students will explore what it means to eat a healthy diet by comparing the foods they typically eat in a day with the recommendations of MyPlate. 	<p>ELA: SL2 Health: Standard 1, Benchmark 1-M-2</p>
9-12	<ul style="list-style-type: none"> • Fruits and Vegetables—The Right Pick for Vitamins and Minerals: Students will describe the farm-to-table process of common fruits and vegetables, recognize the nutrients fruits and vegetables provide, and evaluate methods of food storage and preparation for preserving nutrients. 	<p>ELA: L6, SL1, SL2 Health: Standard 3, Benchmark 3-H-1, Standard 5, Standard 7 Agriscience: Food Science</p>
	<ul style="list-style-type: none"> • Herbs and Spices of the World: In this lesson students will recognize the difference between a spice and herb, learn how herbs and spices are grown on farms around the world, and participate in a culinary challenge to season popcorn for various cultural cuisines. 	<p>ELA: SL1, W7, W8 Health: Standard 2 Agriscience: Plant Science</p>
5. Seeds: Nutrients for Life		
K-2	<ul style="list-style-type: none"> • People and Plants Need Nutrients: Students determine that although plants and people obtain nutrients differently, they both need proper amounts of nutrients to grow and be healthy. 	<p>ELA: W2 Science: K-ESS3-1</p>

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3-5	<ul style="list-style-type: none"> • Plant Growth Affects the Soil: Students define nitrogen, phosphorus, and potassium as soil nutrients, explain that plants use soil nutrients as they grow, discover that fertilizer replaces depleted nutrients, and analyze information on seed packets to determine the needs different plants have for growth. 	<p>ELA: L1, R1, R2, SL1, SL2 Math: MP3, MP4 Science: 5-ESS3-1, 5-LS2-1</p>
6-8	<ul style="list-style-type: none"> • Can We Have Too Much of a Good Thing?: In this lesson students will understand that plants require nutrients in the proper concentrations. Students will discover that plants can be damaged or killed by either too many or too few nutrients. 	<p>ELA: L1, R7, SL1, SL2, W2 Math: MP4 Science: 6-MS-LS2-1, 6-MS-LS2-2, 7-MS-LS4-4 Agriscience: Plant Science</p>
	<ul style="list-style-type: none"> • Digging Into Nutrients: In this lesson, students will gain background knowledge of the nutrient requirements of plants, how those nutrients are obtained by the plant, what farmers must do if the nutrients are not available in soils, and current issues related to agricultural production. 	<p>ELA: L1, R2, R4, SL1, SL2 Science: 6-MS-LS1-1, 6-MS-LS2-3, 7-MS-LS1-6, 7-MS-LS2-4, 8-MS-ESS3-3, 8-MS-LS1-4 Agriscience: Plant Science</p>
	<ul style="list-style-type: none"> • In Search of Essential Nutrients (Grades 6-8): In this lesson students will learn the definition of an essential element, compare and contrast the essential nutrient requirements of plants and humans, explain why plants cannot use elemental nitrogen found in the atmosphere, and identify the sources for each essential nutrient needed by plants. 	<p>ELA: L3, R1, R4, SL5, SL6 Science: 6-MS-LS2-1, 6-MS-LS2-2 Agriscience: Plant Science</p>
	<ul style="list-style-type: none"> • Journey 2050 Lesson 2—Plant Health (Grades 6-8): Students will identify nitrogen, potassium and phosphorus as primary soil nutrients necessary in the production of abundant and healthy foods, describe various methods of replenishing soil nutrients that have been depleted by plant growth, discover how overall plant health impacts a plant's ability to resist disease and pests and describe what best management practices are in agriculture to improve overall sustainability. 	<p>ELA: R4, SL1, SL5 Science: 8-MS-ESS3-3 Agriscience: Plant Science, Soil Science, Ag & Environmental Science, Sustainable Agriculture</p>
	<ul style="list-style-type: none"> • Plant Nutrient Deficiencies (Grades 6-8): Students discuss the definition of "fertilizer" and relate it to plant nutrition and the need to restore nutrient balance in agricultural soils. They discuss how people and crops can suffer from nutrient deficiencies. Students assume the roles of plant doctors and diagnose nutrient deficiencies in corn plants. 	<p>ELA: L1, SL1, SL2 Science: 6-MS-LS2-1, 6-MS-LS2-2, 6-MS-ESS3-4 Agriscience: Plant Science</p>

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9-12	<ul style="list-style-type: none"> • Concentrate on the Solution: In this lesson, students will use their knowledge of solutes, solvents, and parts per million to analyze fertilizer options that meet plant nutrient requirements while evaluating costs associated with managing plant nutrients. 	<p>ELA: SL1, W4 Math: MP1 Science: HS-ESS3-1, HS-ESS3-2 Agriscience: Plant Science</p>
	<ul style="list-style-type: none"> • In Search of Essential Nutrients (Grades 9-12): Students explore the meaning of essential elements and use periodic tables to compare the elements that are essential to people and plants. Students discover where in the environment plants obtain each of their essential elements. 	<p>ELA: R1, SL1, SL2 Science: HS-ESS3-4, HS-LS2-4 Agriscience: Plant Science</p>
	<ul style="list-style-type: none"> • Journey 2050 Lesson 2—Plant Health (Grades 9-12): Students will identify nitrogen, potassium and phosphorus as primary soil nutrients necessary in the production of abundant and healthy foods, describe various methods of replenishing soil nutrients that have been depleted by plant growth, discover how overall plant health impacts a plant’s ability to resist disease and pests and describe what best management practices are in agriculture to improve overall sustainability. 	<p>ELA: R4, SL1, SL5 Science: HS-ESS3-3, HS-LS2-7 Social Studies: C.14, C.14.g Agriscience: Plant Science, Soil Science, Sustainable Agriculture</p>
	<ul style="list-style-type: none"> • Know Your Nitrogen: In this lesson, students will test for plant-available soil nitrogen and learn how farmers use this test to precisely match fertilizer application to meet crop needs and reduce the amount of nitrogen left in the soil. 	<p>ELA: R1, SL1, W7, W9 Science: HS-ESS2-1, HS-ESS2-6, HS-ESS3-1, HS-ESS3-3, HS-ESS2-5 Agriscience: Soil Science</p>
	<ul style="list-style-type: none"> • Matter of Fact: In this lesson, students will take on the role of a nitrogen molecule and experience how various forms of nitrogen cycle through the environment. Students will be able to identify and differentiate between atoms, molecules, and compounds. 	<p>ELA: R1, SL1 Science: HS-ESS2-6, HS-ESS3-1 Agriscience: Ag. & Environmental Science</p>
	<ul style="list-style-type: none"> • Plant Nutrient Deficiencies (Grades 9-12): Students will recognize that plants, like people, require essential nutrients to be present in the right amounts in order to be healthy, use reference materials to diagnose plant nutrient deficiencies, define fertilizer as a type of “food” for plants, and appreciate that fertilizers are used to replenish nutrients in agricultural soils. 	<p>ELA: L5, R1, R2, SL1, SL2 Science: HS-ESS3-4, HS-LS2-1 Social Studies: WG.8 Agriscience: Plant Science</p>

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6. "EnviroSnacks": Watersheds, Soil Profiles, & Erosion		
K-12	<ul style="list-style-type: none"> • *Watershed and Envirosnacks: Students assemble an edible watershed. 	Science: K-ESS3-1, 2-ESS2-3, 4-ESS3-1, 5-ESS2-1, 5-ESS2-2, 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS2-2, 8-MS-ESS3-3, HS-LS-2-1, HS-ESS2-2, HS-ESS2-5, HS-ESS3-1, HS-ESS3-2, HS-ESS3-3, HS-ESS3-4, HS-ESS3-6, HS-EVS1-1, HS-EVS1-2, HS-EVS1-3, HS-EVS2-1
K-2	<ul style="list-style-type: none"> • The Soil We Grow In: Students determine the importance and complexity of the Earth's soil. 	ELA: R1, SL1, W2, W8 Math: MP4 Science: K-ESS3-1, K-ESS3-3
3-5	<ul style="list-style-type: none"> • Caring for the Land: Students explain why people have different opinions regarding soil management and identify cause and effect relationships relating to agriculture and the environment. 	ELA: L6, R1, R8 Science: 3-LS4-4 Social Studies: 3.13 Health: Standard 8, Benchmark 8-E-2
	<ul style="list-style-type: none"> • Dark Days: Students examine the modern and historical importance of soil erosion in Utah and on the Great Plains during the Dust Bowl. 	ELA: R1, SL1
	<ul style="list-style-type: none"> • Keeping Soil in Its Place: Students demonstrate rain drop splash (splash erosion) and determine its impact on bare soil by visually identifying types of erosion. 	ELA: R4, SL2 Science: 3-ESS3-1, 4-ESS2-1
	<ul style="list-style-type: none"> • Soil Formation & Edible Horizons: Students discover what a soil profile looks like, investigate the composition of soil, and explore the five soil-forming factors and soil horizons. 	ELA: R10 Science: 5-ESS2-1, 5-ESS3-1, 5-PS1-3
	<ul style="list-style-type: none"> • Wad-a-Watershed: Students examine the basic geography of a watershed, how water flows through the system, and how people can impact the quality of our water. 	ELA: SL1 Science: 5-ESS3-1
	<ul style="list-style-type: none"> • Water Supply: Students observe the change of water states as it moves through the water cycle. 	ELA: SL1 Math: MP5 Science: 5-LS2-1, 5-ESS2-1

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	<ul style="list-style-type: none"> • What Makes Up Your Profile?: Students observe soil changes in relationship to depth and identify factors associated with soil formation. 	<p>ELA: R7, SL1 Science: 4-ESS2-1</p>
6-8	<ul style="list-style-type: none"> • Journey 2050 Lesson 3: Water (Grades 6-8): Students will discuss the limited amount of fresh water on earth, identify how best management practices can reduce water consumption, discuss the need for water conservation and protection, and compare and contrast methods of irrigation for water conservation. 	<p>ELA: R4, SL1, SL5 Science: 6-MS-ESS3-4, 8-MS-ESS3-3 Agriscience: Ag. & Environmental Science, Sustainable Agriculture</p>
	<ul style="list-style-type: none"> • Water Quality: Students investigate the effects of added soil nutrients on water quality, perform chemical and physical tests on water samples, collect and identify macroinvertebrates from a freshwater system and compare physical, chemical and biological factors of an aquatic ecosystem to determine water health. 	<p>ELA: R1, SL1 Science: 6-MS-LS2-1, 8-MS-ESS3-3</p>
	<ul style="list-style-type: none"> • Watersheds, Soil Profiles, and Erosion: Students develop an understanding of what factors impact water quality within watersheds, what soil types/profiles are most susceptible to erosion, and what factors impact water quality within watersheds and how to mitigate erosion on susceptible soils. 	<p>ELA: L4, SL1 Science: 8-MS-ESS2-2, 8-MS-ESS3-3, 8-MS-LS1-5</p>
9-12	<ul style="list-style-type: none"> • Agricultural Land Use: Students explore the impact of fertilizer on algae growth, soil erosion, and agricultural soil and water conservation practices. 	<p>ELA: R7, SL1 Math: MP3 Science: HS-ESS3-4, HS-LS2-7 Social Studies: U.S.13.c, U.S.18.e, WG.8.a, W.H.6 Agriscience: Soil Science</p>
	<ul style="list-style-type: none"> • From Boom to Dust: Students will learn how the events of World War I helped spark the Great Depression, the Dust Bowl, and the resulting New Deal by watching a video and participating in a round robin, responding in writing to images and sound bites from the Dust Bowl, and observing a wind erosion 	<p>ELA: SL2 Agriscience: Historical Events</p>
	<ul style="list-style-type: none"> • Journey 2050 Lesson 3: Water (Grades 9-12): Students will discuss the limited amount of fresh water on earth, identify how best management practices can reduce water consumption, discuss the need for water conservation and protection, and compare and contrast methods of irrigation for water conservation. 	<p>ELA: R4, SL1, SL5 Science: HS-ESS3-4, HS-LS2-7 Social Studies: W.H.6, C.14 Agriscience: Ag. & Environmental Science, Sustainable Agriculture</p>

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	<ul style="list-style-type: none"> • Plant-Soil Interactions (Grades 9-12): Students will explain the roles of diffusion and active transport in moving nutrients from the soil to the plant, describe the formation of soil and soil horizons; and describe the events in the Great Dust Bowl, how they relate to soil horizons, and how those events affected agricultural practices. 	<p>ELA: R6, R7, SL1, W2 Science: HS-ESS3-4, HS-LS2-1, HS-LS2-7 Social Studies: U.S.5.d, U.S.19.c, W.G.3, W.H.6, C.7.d Agriscience: Plant Science</p>
7. Water Cycle		
K-12	<ul style="list-style-type: none"> • *Water Cycle: Students will learn the various components of the water cycle by becoming a water molecule and traveling through the stages of the water cycle. 	<p>Science: K-ESS3-1, 2-ESS2-3, 4-ESS3-1, 5-ESS2-1, 5-ESS2-2, 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS2-2, 8-MS-ESS3-3, HS-ESS2-5, HS-ESS3-1</p>
	<ul style="list-style-type: none"> • Water Cycle Bracelets: Students will recognize and explain the essential elements of the water cycle while completing a fun activity that uses beads to represent the water cycle. 	<p>Science: K-ESS3-1, 2-ESS2-3, 4-ESS3-1, 5-ESS2-1, 5-ESS2-2, 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS2-2, 8-MS-ESS3-3, HS-ESS2-5, HS-ESS3-1</p>
3-5	<ul style="list-style-type: none"> • Wad-a-Watershed: Students examine the basic geography of a watershed, how water flows through the system, and how people can impact the quality of our water. 	<p>ELA: SL1 Science: 5-ESS3-1</p>
	<ul style="list-style-type: none"> • Water Supply: Students observe the change of water states as it moves through the water cycle. 	<p>ELA: SL1 Math: MP5 Science: 5-LS2-1, 5-ESS2-1</p>
6-8	<ul style="list-style-type: none"> • Learn, Protect, and Promote Water!: In this lesson students learn about water sources, water pollution, and water protection. Students participate in an activity where they demonstrate the water cycle and see the potential for our water supply to become contaminated. 	<p>ELA: SL2 Science: 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS3-3 Agriscience: Ag. & Environmental Science</p>
	<ul style="list-style-type: none"> • Water Quality: Students investigate the effects of added soil nutrients on water quality, perform chemical and physical tests on water samples, collect and identify macro invertebrates from a freshwater system and compare physical, chemical and biological factors of an aquatic ecosystem to determine water health. 	<p>ELA: R1, SL1 Science: 6-MS-LS2-1, 8-MS-ESS3-3</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
8. A Search for the Source		
K-2	<ul style="list-style-type: none"> • *A Search for the Source (Grades K-2): Students determine that agriculture provides nearly all of the products we rely on in any given day by participating in a relay where they match an everyday item with its “source.” 	<p>ELA: L.6, S.L.6 Social Studies: K.15, 1.5, 1.21, 2.15.d, 2.18</p>
	<ul style="list-style-type: none"> • Agriculture and Me: Students categorize sources of basic agricultural products alphabetically. 	<p>ELA: L1, R1, R7, SL6, W4 Social Studies: K.11</p>
	<ul style="list-style-type: none"> • Animal or Plant? (Grades K-2): Students investigate the sources of different foods by differentiating between foods originating from plants and foods originating from animals. 	<p>ELA: L1, SL1 Science: K-ESS3-1</p>
	<ul style="list-style-type: none"> • Eggs—From Hen to Home (Grades K-2): Students trace the production path of eggs, beginning on the farm and ending in their home and identify the culinary uses and nutritional benefits of eggs. 	<p>ELA: L3, SL1, SL4 Science: K-LS1-1 Health: Standards 1 & 7, Benchmarks 1-E-1 & 7-E-1</p>
	<ul style="list-style-type: none"> • My Farm Web (Grades K-2): Students use the visual representation of a web to explore the role of agriculture in their daily lives and understand how most of the necessities of life can be traced back to the farm. 	<p>ELA: L4, SL2, W2 Science: K-ESS3-1</p>
	<ul style="list-style-type: none"> • Who Grew My Soup? (Grades K-2): Students identify the source of the food they eat and investigate the processes and people involved in getting food from the farm to their spoon. 	<p>ELA: L1 Math: MP2, MP4 Social Studies: K.11 Health: Standard 7, Benchmark 7-E-1</p>
3-5	<ul style="list-style-type: none"> • *A Search for the Source (Grades 3-5): Students determine that agriculture provides nearly all of the products we rely on in any given day by participating in a relay where they match an everyday item with its “source.” 	<p>ELA: L.6, S.L.6 Science: 4-ESS3-1</p>
	<ul style="list-style-type: none"> • Animal or Plant? (Grades 3-5): Students investigate the sources of different foods and examine the importance of eating a variety of nutritious foods. 	<p>ELA: R1, SL1, SL2 Health: Standard 1, Standard 3, Benchmark 3-E-2, Standard 5, Benchmark 5-E-1</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • Edible Numbers: Students develop a working vocabulary regarding food, categorize foods by their sources, examine grocery ads, learn about food production, and apply what they learned by analyzing foods they eat at a particular meal. 	ELA: R4, SL1, SL2, W2, W4 Math: MP4, MP6 Science: 4-LS1-1 Social Studies: 3.18 Health: Standards 1, 3, 5, & 7 Benchmarks 1-E-1, 3-E-2, 5-E-1, & 7-E-1
	<ul style="list-style-type: none"> • Many Types of Farms: Students explore the sources of a variety of agricultural products and discover that farms can be diverse in size and in products that are grown and raised. 	ELA: R1, SL1, SL2 Science: 3-LS4-3
	<ul style="list-style-type: none"> • My Farm Web (Grades 3-5): Students use the visual representation of a web to explore the role of agriculture in their daily lives and understand how most of the necessities of life can be traced back to the farm. 	ELA: SL1, W4 Science: 4-ESS3-1
	<ul style="list-style-type: none"> • Overfishing and Aquaculture (Grades 3-5): Students discover the sources of various fish and seafood, compare wild-caught and farm-raised aquaculture systems, and use a simulation to determine how overfishing can damage the ocean ecosystem. 	ELA: SL1 Math: MP4, MP7 Science: 5-ESS3-1, 5-LS2-1
	<ul style="list-style-type: none"> • Where Does It Come From?: Students explore the connection between geography, climate, and the type of agriculture in an area by reading background information and census data about the agricultural commodities beef, potatoes, apples, wheat, corn, and milk. 	ELA: R1
	<ul style="list-style-type: none"> • Who Grew My Soup? (Grades 3-5): Students identify the source of the food they eat and investigate the processes and people involved in getting food from the farm to their spoon. 	ELA: R1 Math: MP2, MP4, MP5 Social Studies: 3.18 Health: Standard 7, Benchmark 7-E-2
6-8	<ul style="list-style-type: none"> • *A Search for the Source (Grades 6-8): In this lesson students will learn that agriculture provides nearly all of the products we rely on in any given day by participating in a relay where they match an everyday item with its “source.” 	ELA: L.6, S.L.6 Agriscience: Intro to Ag
	<ul style="list-style-type: none"> • Clothes on the Grow: Students will gain a broad understanding of the types and sources of different fibers, examining their origins and observing their differences. Activities in this lesson include examining clothing and clothing labels and observing how different types of fabrics burn. 	ELA: L6 Science: 8-MS-PS1-3 Agriscience: Fiber

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • Overfishing and Aquaculture (Grades 6-8): Students discover the sources of various fish and seafood, compare wild-caught and farm-raised aquaculture systems, and use a simulation to determine how overfishing can damage the ocean ecosystem. • The Geography of Thanksgiving Dinner (Grades 6-8): Identify common Thanksgiving foods and their farm source, determine if those foods can be produced locally, and locate the common origins of their Thanksgiving day dinner. 	<p>ELA: R2, SL1, SL2 Science: 6-MS-ESS3-4, 6-MS-LS2-1, 8-MS-ESS3-3 Agriscience: Animal Science</p> <p>ELA: L4, R4, SL1, W2, W4 Agriscience: Holiday Specific</p>
9-12	<ul style="list-style-type: none"> • *A Search for the Source (Grades 9-12): In this lesson students will learn that agriculture provides nearly all of the products we rely on in any given day by participating in a relay where they match an everyday item with its “source.” 	<p>ELA: L.6, S.L.6 Agriscience: Intro to Ag Social Studies: W.G.8.a</p>
	<ul style="list-style-type: none"> • Before the Plate: Students view the 2018 documentary <i>Before the Plate</i> and follow Canadian chef John Horne as he journeys to the source of ten primary food ingredients used in his restaurant. Using critical thinking skills, students will explore the farm-to-table journey of food. This lesson covers a socioscientific issue and aims to provide students with tools to evaluate science within the context of social and economic points of view. 	<p>ELA: SL1, W1 Health: Standard 2, Benchmark 2-H-4, Benchmark 5-H-2 Agriscience: Food Science</p>
	<ul style="list-style-type: none"> • The Geography of Thanksgiving Dinner (Grades 9-12): Identify common Thanksgiving foods and their farm source, determine if those foods can be produced locally, and locate the common origins of their Thanksgiving day dinner. 	<p>ELA: R4, SL1, SL2 Agriscience: Holiday Specific</p>

Demonstration Stations

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
9. Honey Bees: Lip Balm & Beeswax Molding Clay		
K-2	<ul style="list-style-type: none"> The Amazing Honey Bee: Students investigate the three types of honey bee in a colony, identify their roles, and recognize honey bees as part of a community that works together. 	ELA: L.1, S.L.1, R.1 Science: K-ESS3-1, 1-LS1-1, 2-LS2-2, 2-LS4-1
3-5	<ul style="list-style-type: none"> Flower Power (Grades 3-5): Students observe physical characteristics of flowers and explore principles of pollination. 	ELA: L.6, S.L.2 Science: 3-LS3-2, 4-LS1-1
	<ul style="list-style-type: none"> Honey Bees: A Pollination Simulation: Students identify the parts of a honey bee, the stages of its life cycle, and its role in pollination. 	ELA: L.6, R.7, S.L.1, S.L.2 Science: 3-LS1-1, 4-LS1-1, 4-LS1-2
6-8	<ul style="list-style-type: none"> Flower Power (Grades 6-8): Students observe the anatomical structures of flowers and explain a flower's role in plant growth and reproduction as well as their connection to our food supply. 	ELA: L.6 Science: 7-MS-LS3-2, 8-MS-LS1-4 Agriscience: Plant Science Basics
	<ul style="list-style-type: none"> Mind Your Own Beeswax: Through project-based learning, students solve the problem of excess beeswax, a byproduct of honey bees, by developing a useful beeswax product and marketing their product to be sold in a local boutique or farmers market. 	ELA: S.L.1 Agriscience: Agribusiness
9-12	<ul style="list-style-type: none"> Fermentation of Honey: This lesson explains the processes of cellular respiration and fermentation and how it applies to the production and processing of honey. 	Math: MP4 Science: HS-LS1-7 Agriscience: Science Applications
	<ul style="list-style-type: none"> Honey as a Biomolecule: Students will learn about different types of carbohydrates, the role of enzymes in breaking down complex sugars into simple sugars, and how different sugars impact our perception of sweetness and may impact human health. 	ELA: R.4, SL1, SL2 Science: HS-LS1-7

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • Preservation Power of Honey: Students will expand their knowledge of microbial growth and scientific food preservation methods to learn how honey can serve as an antibacterial agent. Students will learn how honey may be used as a preservative of milk in areas without access to electricity or refrigeration and how this preservation method relies on elements found specifically in honey that cannot be replicated with other sources of sugar. 	<p>ELA: R7 Health: Standard 5, Benchmark 5-H-2 Agriscience: Food Science</p>
10. Beef Basics		
K-12	<ul style="list-style-type: none"> • Compliments of Cattle Activity Sheet: Meat isn't the only product that comes from beef cattle. The by-products of beef production are used to make numerous everyday items. This black line coloring sheet depicts cattle using items that come to us "compliments of cattle." Students can check off the list of beef by-products as they color cattle playing basketball, repairing cars, and putting on lipstick. 	
	<ul style="list-style-type: none"> • The Steaks Are High Online Game: This engaging game introduces students to the world of beef production, from the cow-calf operation to the livestock auction, stocker ranch, and feed yard. Answering math problems is the key to progressing through the game, reinforcing key mathematics standards for grades 3-5. 	
K-2	<ul style="list-style-type: none"> • Milk or Meat? Beef or Dairy?: Students identify the differences between beef and dairy cattle and determine the commodities produced by each type of cattle. 	<p>ELA: L3, R1, R5, SL4, SL5 Math: MP3, MP4 Science: 1-LS3-1</p>
3-5	<ul style="list-style-type: none"> • Beef Basics: Students explain the value of the beef cattle industry, including the products cattle produce, the production process from farm to plate, and how cattle can utilize and obtain energy from grass and other forage. 	<p>ELA: R1, SL1, SL3 Science: 3-LS4-3, 5-PS3-1</p>
	<ul style="list-style-type: none"> • Build-a-Calf Workshop: Students explore concepts of heredity in beef cattle and identify dominant and recessive traits. 	<p>ELA: L1, R7, R9, SL1, SL2, W8, W9 Math: MP2 Science: 3-LS3-1, 3-LS3-2</p>
6-8	<ul style="list-style-type: none"> • The Remarkable Ruminant: In this lesson, students will follow the farm to fork process of producing beef, learn how cattle and other ruminants convert grass into nutrient-rich foods such as milk and meat, discover ways cattle recycle food waste, and identify careers in the beef cattle industry. 	<p>ELA: R2, SL1, W2, W7 Science: 6-MS-LS2-1, 6-MS-LS2-2, 8-MS-ESS3-3 Agriscience: Ag Careers, Animal Science</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
9-12	<ul style="list-style-type: none"> • Beef—Making the Grade: Students will evaluate the USDA grading system for whole cuts of beef and discuss consumer preferences and nutritional differences between grain-finished and grass-finished beef. Students will also distinguish various labels on beef products and discuss reasons for the government's involvement in agricultural production, processing and distribution of food. 	<p>ELA: SL1, W2 Health: Standard 5 Agriscience: Animal Science</p>
11. Dairy: Making Butter, Cheese, & Ice Cream in a Bag		
K-2	<ul style="list-style-type: none"> • It's a MOO-stery! (Grades K-2): Students make observations about historic tools used on a dairy farm to store and process milk into cheese and butter. 	<p>ELA: SL1 Science: K-2-ETS1-2, K-PS2-2 Social Studies: 1.5, 2.5</p>
	<ul style="list-style-type: none"> • Milk or Meat? Beef or Dairy?: Students identify the differences between beef and dairy cattle and determine the commodities produced by each type of cattle. 	<p>ELA: L3, R1, R5, SL4, SL5 Math: MP3, MP4 Science: 1-LS3-1</p>
	<ul style="list-style-type: none"> • Milk, Sugar, Science—Engineering Ice Cream: Students explore the journey of milk from cow to ice cream, make ice cream in a bag, and discover how food engineers have developed many different processes for making ice cream. 	<p>ELA: R1, SL1, SL2 Science: K-2-ETS1-1, K-2-ETS1-3</p>
3-5	<ul style="list-style-type: none"> • A Day Without Dairy: Students create, read, and interpret graphs relating to the economic importance of the dairy industry and are challenged to understand the economic consequences of a day without dairy. 	<p>ELA: L1 Math: MP1, MP4 Social Studies: 3.15.c</p>
	<ul style="list-style-type: none"> • Cheesemaking—From Liquid to Solid: Students make fresh mozzarella cheese and discover the science (changing a liquid to a solid), art, and craft involved in the development of specialty cheese. 	<p>ELA: SL1, W2 Science: 5-PS1-3, 5-PS1-4</p>
	<ul style="list-style-type: none"> • Cowabunga! All About Dairy Breeds: Students explore breed characteristics and countries of origin for five different breeds of dairy cattle and discover why dairy farmers choose individual breeds for specific purposes. 	<p>ELA: R10, SL1, SL2</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • Energy's Journey from Farm to You: Students discover how plants use energy from the sun to change air and water into matter needed for growth. Using dairy cows as an example, students investigate how animals obtain energy from the plants they eat to produce milk for human consumption. Further exploration is facilitated by a live virtual visit to a dairy farm or the option of viewing a pre-recorded virtual dairy farm tour. 	<p>ELA: SL1 Science: 5-PS3-1</p>
	<ul style="list-style-type: none"> • It's a MOO-stery! (Grades 3-5): Students make observations about historic tools used on a dairy farm to store and process milk into cheese and butter. 	<p>ELA: SL1 Science: K-2-ETS1-2, K-PS2-2 Social Studies: 1.5, 2.5</p>
	<ul style="list-style-type: none"> • Milk Makin' Math: Students explore the numerous career opportunities involved in the dairy industry and solve real world math problems related to specific careers within the industry. 	<p>ELA: L4, R4, SL1, W10 Math: MP1, MP2 Science: 4-LS1-1, 4-LS1-2, 5-ESS3-1, 5-PS3-1 Social Studies: 3.15.c</p>
	<ul style="list-style-type: none"> • Sun, to Moo, to You!: Students investigate the transfer of energy in the process of making milk, discover that there are different forms of energy, determine that living things need energy to survive, and identify the sun as the primary source of energy. 	<p>ELA: L4, SL1, SL2 Science: 4-LS1-1, 5-ESS2-1, 5-LS1-1</p>
	<ul style="list-style-type: none"> • The Ultimate Efficient Recycler: Students examine how cows help conserve natural resources by identifying the important role dairy cattle have in reducing, reusing, and recycling food processing by-products. Students identify each stage of the ecological cycle and the important role of decomposers. 	<p>ELA: R3, SL1, W2, W4 Science: 5-ESS3-1, 5-LS2-1, 5-PS3-1</p>
	<ul style="list-style-type: none"> • Whipping Butter into Shape: Students investigate the physical change that occurs as milk is turned into butter. 	<p>ELA: SL1, W2 Science: 5-PS1-3, 5-PS1-4</p>
6-8	<ul style="list-style-type: none"> • Cheesemaking—A Science, an Art, and a Craft: Students make fresh mozzarella cheese and explore a career as an artisan cheesemaker as they discover the science, art, and craft involved in the development of specialty cheeses. 	<p>ELA: R7, SL1, SL2 Agriscience: Ag Careers, Food Science</p>
	<ul style="list-style-type: none"> • From Cow to Carton—Milk's Journey to the Consumer: Students will explore milk production in the United States and explain the benefits of homogenization, pasteurization, and fortification of milk. 	<p>ELA: R4, SL1, SL3 Agriscience: Animal Science, Food Science</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
9-12	<ul style="list-style-type: none"> • Lactose Lab—Some Don't Like it Sweet: In this lesson students will learn the chemistry and composition of milk, identify the difference between a monosaccharide and disaccharide, and carry out a laboratory activity testing the effect of the enzyme lactase on various milks. 	<p>ELA: L4, SL1 Math: MP4 Science: HS-LS1-6 Health: Standard 5, Benchmark 5-H-2, Standard 7</p>
	<ul style="list-style-type: none"> • Milk—The Scoop on Chemical and Physical Changes: In this lesson students apply their knowledge of physical science to dairy products to determine if the changes that take place when turning milk into cheese, butter, yogurt, ice cream, whip cream and other dairy products, is a physical or chemical change. 	<p>ELA: R1, SL1, SL2, W1, W4 Health: Standard 7 Agriscience: Food Labs</p>
12. *Circles of the Earth Bracelet Students recognize that the important resources our Planet Earth provides are inter-connected “circles” of our life systems.		
13. Plants: Desktop Greenhouses		
K-2	<ul style="list-style-type: none"> • My Little Seed House and Seed Book: Students observe the growth and development of seeds and explore what conditions are necessary for seeds to germinate. 	<p>ELA: R1 Science: K-LS1-1</p>
3-5	<ul style="list-style-type: none"> • *Desktop Greenhouses: Students investigate the importance of light to plants by creating a desktop greenhouse investigation and exploring the process of photosynthesis. 	<p>ELA: R1, SL1, SL4, W2 Science: 3-LS4-3, 4-LS1-1, 5-ESS3-1, 5-LS1-1</p>
14. Soil & Nutrients: Worm Composting		
K-12	<ul style="list-style-type: none"> • *Construct a Compost Bottle: Composting is the process of creating nutrient-rich soil from decomposing organic matter like grass, leaves, and food scraps. Construct a compost bottle using a clear container, bottle, or jar and observe the organic matter break down into soil rich in nutrients that can be used in a garden. 	
	<ul style="list-style-type: none"> • Make Your Own Worm Bin: Vermicomposting in your classroom is an effective way to engage students with a wide variety of science concepts. This activity will show you how to make your own worm bin out of a recycled styrofoam cooler. Prepare the cooler ahead of time, and then have students add the bedding, worms, and vegetable scraps. 	
K-2	<ul style="list-style-type: none"> • Vermicomposting (Grades K-2): Students create a worm bin which will serve as a basis for investigations about ecosystems, life and nutrient cycles, and decomposition. 	<p>ELA: L6 Science: K-LS1-1</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
3-5	<ul style="list-style-type: none"> • Vermicomposting (Grades 3-5): Students create a worm bin which will serve as a basis for investigations about ecosystems, life and nutrient cycles, and decomposition. 	<p>ELA: L6 Science: 4-LS1-1, 4-LS1-2, 5-LS2-1</p>
	<ul style="list-style-type: none"> • Working Worms: Students observe how earthworms speed the decomposition of organic matter and identify how this adds nutrients to the soil that are important for plant growth by constructing worm habitats from milk jugs. 	<p>ELA: R4, SL1, SL2 Science: 4-LS1-1, 5-LS2-1</p>
6-8	<ul style="list-style-type: none"> • It's a Dirty Job: In this lesson, students will create mini habitats to observe earthworm behavior and learn about the important role that earthworms play in decomposition and plant growth. 	<p>ELA: R1 Science: 6-MS-LS2-1, 6-MS-LS2-2, 6-MS-LS2-3, 7-MS-LS2-4 Agriscience: Earthworms</p>
15. Water Cycle		
K-12	<ul style="list-style-type: none"> • Water Cycle: Students will learn the various components of the water cycle by becoming a water molecule and traveling through the stages of the water cycle. 	<p>Science: K-ESS3-1, 2-ESS2-3, 4-ESS3-1, 5-ESS2-1, 5-ESS2-2, 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS2-2, 8-MS-ESS3-3, HS-ESS2-5, HS-ESS3-1</p>
	<ul style="list-style-type: none"> • *Water Cycle Bracelets: Students will recognize and explain the essential elements of the water cycle while completing a fun activity that uses beads to represent the water cycle. 	<p>Science: K-ESS3-1, 2-ESS2-3, 4-ESS3-1, 5-ESS2-1, 5-ESS2-2, 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS2-2, 8-MS-ESS3-3, HS-ESS2-5, HS-ESS3-1</p>
3-5	<ul style="list-style-type: none"> • Wad-a-Watershed: Students examine the basic geography of a watershed, how water flows through the system, and how people can impact the quality of our water. 	<p>ELA: SL1 Science: 5-ESS3-1</p>
	<ul style="list-style-type: none"> • Water Supply: Students observe the change of water states as it moves through the water cycle. 	<p>ELA: SL1 Math: MP5 Science: 5-LS2-1, 5-ESS2-1</p>
6-8	<ul style="list-style-type: none"> • Learn, Protect, and Promote Water!: In this lesson students learn about water sources, water pollution, and water protection. Students participate in an activity where they demonstrate the water cycle and see the potential for our water supply to become contaminated. 	<p>ELA: SL2 Science: 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS3-3 Agriscience: Ag. & Environmental Science</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • Water Quality: Students investigate the effects of added soil nutrients on water quality, perform chemical and physical tests on water samples, collect and identify macro invertebrates from a freshwater system and compare physical, chemical and biological factors of an aquatic ecosystem to determine water health. 	<p>ELA: R1, SL1 Science: 6-MS-LS2-1, 8-MS-ESS3-3</p>
16. Hydroponics: Strawberry Hydroponics Garden		
K-2	<ul style="list-style-type: none"> • Exploring Aquaponics (Grades K-2): Students identify the basic needs of plants and fish and engineer, assemble, maintain, and observe a small-scale aquaponics system that meets plant and fish needs. 	<p>ELA: R1 Science: K-2-ETS1-2, K-LS1-1, 2-LS2-1</p>
3-5	<ul style="list-style-type: none"> • Exploring Aquaponics (Grades 3-5): Students identify the basic needs of plants and fish and engineer, assemble, maintain, and observe a small-scale aquaponics system that meets plant and fish needs. 	<p>ELA: R1 Science: 3-LS4-3, 3-LS4-4, 4-LS1-1, 5-LS1-1, 5-LS2-1</p>
	<ul style="list-style-type: none"> • Test Tube Hydroponics: Students investigate the importance of nutrients for plant growth and discover how plants grow without soil by growing and observing plants in a test tube hydroponic system. 	<p>ELA: L4, R1, R4, SL4, W2, W4 Science: 4-LS1-1, 5-ESS3-1, 5-LS1-1</p>
6-8	<ul style="list-style-type: none"> • What? No Soil?: After learning the five basic requirements of plant growth, students discuss terms related to hydroponics. Students then build and maintain hydroponic units from soda bottles. 	<p>ELA: L6, SL1, SL2, W1 Science: 7-MS-LS1-6, 7-MS-LS1-7, 7-MS-LS2-5, 8-MS-LS1-5 Agriscience: Plant Science</p>
17. Seeds: "Three Sisters" Garden		
K-2	<ul style="list-style-type: none"> • Farming in a Glove (Grades K-2): Students observe how a seed sprouts and investigate the conditions necessary for germination to occur. 	<p>ELA: SL1, W4 Math: MP5 Science: K-LS1-1, 2-LS2-1, 2-PS1-1</p>
	<ul style="list-style-type: none"> • Supreme Seeds: Students observe various types of seed, discover the many uses of seeds, taste edible seeds, and make a seed mosaic. 	<p>ELA: R10, SL1 Health: Standard 7, Benchmark 7-E-1, Benchmark 7-E-2</p>
3-5	<ul style="list-style-type: none"> • Farming in a Glove (Grades 3-5): Students observe how a seed sprouts and investigate the conditions necessary for germination to occur. 	<p>ELA: SL1, W4 Math: MP5 Science: 3-LS1-1, 4-LS1-1, 5-LS1-1</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • Seeds, Miraculous Seeds: Students dissect seeds, identify the anatomy and function of seed parts, and classify seeds as monocots or dicots. 	ELA: L1, R1, R2, SL1 Science: 3-LS1-1, 4-LS1-1, 5-LS1-1
	<ul style="list-style-type: none"> • *Three Sisters Garden: Students investigate the “three sisters” crops (corn, beans, and squash) and explore the benefits of planting these crops together. 	ELA: R2, SL1 Science: 5-LS1-1
18. Careers in Agriculture		
K-2	<ul style="list-style-type: none"> • Agriculture Pays: Students discover that agricultural careers are interconnected and that agriculture influences many parts of their daily lives. 	ELA: L1, SL1, SL2 Social Studies: 1.31, 2.17, 2.26
3-5	<ul style="list-style-type: none"> • Find Your Future Career (Grades 3-5): Students discover the variety of agricultural careers available and consider their career paths in terms of economics, interests, and suitability to their personal talents and characteristics. 	ELA: R1 Science: 5-ESS3-1
6-8	<ul style="list-style-type: none"> • AgVenture—Sourcing Ag Careers: Students consider the scope of agriculture and how it is the source of most of our day-to-day necessities in preparation to explore the five agricultural career pathways. 	ELA: L6 Agriscience: Ag Careers
	<ul style="list-style-type: none"> • Career Gaming: Through project-based learning, students will design games that will assist others with identifying a variety of agricultural careers, possible emerging agricultural careers, the education required for agricultural career options, and the types of salaries that can be expected in each career. 	ELA: SL1 Agriscience: Ag Careers
	<ul style="list-style-type: none"> • Career Trek: Students will explore careers in the fields of agriculture and natural resources through online research. They will check their understanding by playing Career Trek—a board game that requires students to identify careers in agriculture and natural resources. 	ELA: R1, SL1, SL2 Agriscience: Ag Careers
	<ul style="list-style-type: none"> • Charting Agricultural Careers: Students will use infographics and charts to explore the careers that produce food, clothing, shelter, and fuel along with a variety of agricultural STEM careers requiring critical thinkers and problem solvers. 	Math: MP2 Agriscience: Ag Careers
	<ul style="list-style-type: none"> • Find Your Future Career (Grades 6-8): Students discover the variety of agricultural careers available and consider their career paths in terms of economics, interests, and suitability to their personal talents and characteristics. 	ELA: R1 Agriscience: Ag Careers

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • Journey 2050 Lesson 6—Careers for 2050 and Beyond! (Grades 6-8): Students will explore careers related to agriculture, identify personal interests within agriculture or a related field and discuss how agricultural professionals can impact world food. 	<p>ELA: R4, SL1, SL5 Agriscience: Ag Careers</p>
9-12	<ul style="list-style-type: none"> • Find Your Future Career (Grades 9-12): Students discover the variety of agricultural careers available and consider their future career paths in terms of economics, interests, and suitability to their personal talents and characteristics. 	<p>ELA: R1, SL5 Agriscience: Ag Careers</p>
	<ul style="list-style-type: none"> • Journey 2050 Lesson 6—Careers for 2050 and Beyond! (Grades 9-12): Students will explore careers related to agriculture, identify personal interests within agriculture or a related field and discuss how agricultural professionals can impact world food. 	<p>ELA: R4, SL1, SL5 Agriscience: Ag Careers Social Studies: C.14.g, C.15.a</p>
19. Land and Water Use: Earth as an Apple		
K-12	<ul style="list-style-type: none"> • *The Earth as an Apple: One of our most valuable resources in agriculture is land and water. This demonstration will show just how important these resources are to everyone. 	<p>Science: K-ESS3-1, 2-ESS2-3, 4-ESS3-1, 5-ESS2-2, 6-MS-ESS3-4, 8-MS-ESS3-3, HS-ESS3-1, HS-LS2-7</p>
K-2	<ul style="list-style-type: none"> • The Soil We Grow In: Students determine the importance and complexity of the Earth's soil. 	<p>ELA: R1, SL1, W2, W8 Math: MP4 Science: K-ESS3-1, K-ESS3-3</p>
3-5	<ul style="list-style-type: none"> • Soil Texture and Water Percolation: Students determine the water holding and draining capacities of different soils and investigate how organic matter affects the amount of water soil will hold. 	<p>Math: MP4 Science: 5-ESS2-1, 5-LS2-1</p>
	<ul style="list-style-type: none"> • Wad-a-Watershed: Students examine the basic geography of a watershed, how water flows through the system, and how people can impact the quality of our water. 	<p>ELA: SL1 Science: 5-ESS3-1</p>
	<ul style="list-style-type: none"> • Water Supply: Students observe the change of water states as it moves through the water cycle. 	<p>ELA: SL1 Math: MP5 Science: 5-LS2-1, 5-ESS2-1</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> • What's Our Soil Worth?: Students determine that topsoil is a limited resource with economic value and use an apple to represent how Earth's land resources are used. 	<p>ELA: SL2 Math: MP2</p>
	<ul style="list-style-type: none"> • Fertilizers and the Environment (Grades 6-8): In this lesson students will recognize that fertile soil is a limited resource to produce food for a growing population, describe the role fertilizer plays to increase food productivity, distinguish between organic and commercial fertilizers, and recognize how excess nutrients are harmful to the environment. 	<p>ELA: L5, R8, R9, SL1, W4, W9 Science: 6-MS-ESS3-4, 8-MS-ESS3-3 Agriscience: Soil Science</p>
	<ul style="list-style-type: none"> • *Journey 2050 Lesson 3- Water (Grades 6-8): Students will discuss the limited amount of fresh water on earth, identify how best management practices can reduce water consumption, discuss the need for water conservation and protection, and compare and contrast methods of irrigation for water conservation. 	<p>ELA: R4, SL1, SL5 Science: 6-MS-ESS3-4, 8-MS-ESS3-3 Agriscience: Ag. & Environmental Science, Sustainable Agriculture</p>
	<ul style="list-style-type: none"> • *Journey 2050 Lesson 5: Land Use (Grades 6-8): Students will recognize that arable land (ideal land for growing crops) is a limited resource, identify best management practices that can be applied to every stakeholder's land-use decisions; and analyze and discuss the impacts of food waste on our environment. 	<p>ELA: R4, SL1, SL5 Science: 6-MS-ESS3-4, 8-MS-ESS3-3 Agriscience: Ag. & Environmental Science, Sustainable Agriculture</p>
6-8	<ul style="list-style-type: none"> • Land and Soil in the Ecosystem: Students use an apple to represent the Earth and discover how our land resources are used. Through critical thinking, students discover why topsoil is a nonrenewable resource, the importance of soil to our food supply, and factors that impact topsoil distribution in different regions. 	<p>ELA: SL2 Math: MP2 Science: 8-MS-ESS3-1 Agriscience: Soil Science</p>
	<ul style="list-style-type: none"> • Learn, Protect, and Promote Water!: In this lesson students learn about water sources, water pollution, and water protection. Students participate in an activity where they demonstrate the water cycle and see the potential for our water supply to become contaminated. 	<p>ELA: SL2 Science: 6-MS-ESS3-4, 7-MS-ESS2-4, 8-MS-ESS3-3 Agriscience: Ag. & Environmental Science</p>
	<ul style="list-style-type: none"> • Water Quality: Students investigate the effects of added soil nutrients on water quality, perform chemical and physical tests on water samples, collect and identify macro invertebrates from a freshwater system and compare physical, chemical, and biological factors of an aquatic ecosystem to determine water health. 	<p>ELA: R1, SL1 Science: 6-MS-LS2-1, 8-MS-ESS3-3</p>

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	<ul style="list-style-type: none"> • Watersheds, Soil Profiles, and Erosion: Students develop an understanding of what factors impact water quality within watersheds, what soil types/profiles are most susceptible to erosion, and what factors impact water quality within watersheds and how to mitigate erosion on susceptible soils. 	<p>ELA: L4, SL1 Science: 8-MS-ESS2-2, 8-MS-ESS3-3, 8-MS-LS1-5</p>
9-12	<ul style="list-style-type: none"> • Agricultural Land Use: Students explore the impact of fertilizer on algae growth, soil erosion, and agricultural soil and water conservation practices. 	<p>ELA: R7, SL1 Math: MP3 Science: HS-ESS3-4, HS-LS2-7 Social Studies: U.S.13.c, U.S.18.e, W.G.8.a, W.H.6 Agriscience: Soil Science</p>
	<ul style="list-style-type: none"> • Agricultural Production Regions in the United States: Students investigate US crop and livestock production and analyze the relevance of land use models in contemporary agricultural production. 	<p>ELA: R7, W2, W7 Agriscience: Animal Science, Soil Science</p>
	<ul style="list-style-type: none"> • Earth's Land and Soil Resources: Students discover that topsoil is a nonrenewable resource and use an apple to represent how Earth's land resources are used. Through critical thinking, students study agricultural land use and consider the sustainability of current land use practices including the use of land to feed and graze livestock animals. 	<p>ELA: SL2 Math: MP2 Science: HS-ESS3-1 Agriscience: Soil Science</p>
	<ul style="list-style-type: none"> • Fertilizers and the Environment (Grades 9-12): Students will recognize that fertile soil is a limited resource, describe the role fertilizer plays in food productivity, distinguish between organic and commercial fertilizers, describe how excess nutrients are harmful to the environment, and identify different sources of nutrient pollution. 	<p>ELA: L3, R1, SL1 Science: HS-ESS3-4, HS-LS2-1, HS-LS2-7 Agriscience: Soil Science</p>
	<ul style="list-style-type: none"> • *Journey 2050 Lesson 3-Water (Grades 9-12): Students will discuss the limited amount of fresh water on earth, identify how best management practices can reduce water consumption, discuss the need for water conservation and protection, and compare and contrast methods of irrigation for water conservation. 	<p>ELA: R4, SL1, SL5 Science: HS-ESS3-4, HS-LS2-7 Social Studies: C.14, W.H.6 Agriscience: Ag. & Environmental Science, Sustainable Agriculture</p>
	<ul style="list-style-type: none"> • *Journey 2050 Lesson 5: Land Use (Grades 9-12): Students will recognize that arable land (ideal land for growing crops) is a limited resource, identify best management practices that can be applied to every stakeholder's land-use decisions; and analyze and discuss the impacts of food waste on our environment. 	<p>ELA: R4, SL1, SL5 Science: HS-ESS3-3, HS-LS2-7 Social Studies: W.H.6, C.14 Agriscience: Ag. & Environmental Science, Sustainable Agriculture</p>

Grade Level	Related Lesson Plans & Classroom Activities (*indicates activities featured on-site at the Fast Food Farms event)	Louisiana State Standards
	<ul style="list-style-type: none"> The Water Footprint of Food: Explore concepts of sustainability by evaluating the water footprint (WF) of food. Students are introduced to irrigation practices throughout the world, consumptive and non-consumptive water use, and investigate the water requirements for various food crops. 	<p>ELA: L4, SL1, W7</p> <p>Science: HS-ESS3-3, HS-LS2-7</p>
20. Popcorn: Let's Get Popping!		
3-5	<ul style="list-style-type: none"> Corn an A-maizing Plant-Food, Fuel, and Plastic: Students examine the growth, composition, history, and uses of corn through a close reading activity, discussion of renewable and non-renewable resources, and hands-on exploration of bioplastics made from corn. 	<p>Math: MP1</p> <p>Science: 4-ESS3-1, 5-ESS3-1</p>
	<ul style="list-style-type: none"> *Get Popping!: Students discover how popcorn is grown and explore the phenomenon of how popcorn pops. 	<p>ELA: SL1, W1</p> <p>Science: 5-PS1-1, 5-PS1-3</p>
	<ul style="list-style-type: none"> Inherited Traits in the Living Corn Necklace (Grades 3-5): Students will observe the growth of Indian corn and popcorn seeds, observe similarities and differences between the two varieties, and discuss heredity. 	<p>ELA: L1, R1, SL1</p> <p>Science: 3-LS3-1</p>
6-8	<ul style="list-style-type: none"> Growing America: Students determine corn anatomy and function of plant parts, identify stages of plant development in corn, and research how temperature plays a role in corn growth as they calculate growing degree units (GDUs) for a region. 	<p>ELA: R7, SL1</p> <p>Math: MP1</p> <p>Science: 8-MS-LS1-5</p> <p>Agriscience: Plant Science</p>
	<ul style="list-style-type: none"> Inherited Traits in the Living Corn Necklace (Grades 6-8): Students will observe the growth of Indian corn and popcorn seeds, observe similarities and differences between the two varieties, and discuss heredity. 	<p>ELA: L6</p> <p>Science: 7-MS-LS3-2, 7-MS-LS4-5</p> <p>Agriscience: Plant Science</p>