JONES VALLEY

teaching farm

PreK – 8th Field Trip Programming Guide

ABOUT JVTF

Food is our foundation; people grow here. Jones Valley Teaching Farm (JVTF) uses food as a foundation so young people can lead, create, and grow a healthy future for themselves and their community.

WHAT WE DO

Jones Valley Teaching Farm's flagship program is a PreK–12th grade food-based education model rooted in academic standards delivered to Birmingham City School students by JVTF Instructors. Through cross-curricular experiential lessons during school, after school, and virtually, students use food, farming, and the culinary arts as a foundation for academic exploration, leadership, and pursuit of post-secondary pathways.

OUR IMPACT

Research shows that our Good School Food program cultivates responsibility, builds strong relationships with peers, and creates opportunities for students to develop life skills such as leadership, confidence, and teamwork.

We envision communities inspired by food and transformed by youth.

FIELD TRIPS

Field trips at JVTF's Center for Food Education are wrapped around our flagship program, Good School Food. Every Good School Food field trip aligns with the Alabama Course of Study. This hands-on education model connects students to food, farming, and the culinary arts through standards-based, cross-curricular lessons during the school day.

Scheduling

Tuesday, Thursday, & Friday

9:00AM - 11:00AM or 12:00PM - 2:00PM

Pricing

$10 per student
(maximum 50 students for farm experience & 40 for culinary experience)

$15 per chaperone

$0 per teacher
(maximum 8-10 teachers)

All programs are free to Birmingham City Schools (BCS) students due to generous support from BCS and public and private partners.

FAQ

Can you combine farm and culinary experiences?

No, but each farm experience includes a small culinary component and each culinary field trip will have a farm component.

When should we arrive?

Please arrive 15 minutes before your field trip is scheduled to begin.

Is transportation provided?

Transportation to and from the Center for Food Education is not provided.

Is lunch provided during the field trip?

No, lunch is not provided.

Are field trips standards-based?

Yes, each field trip option aligns with the Alabama Course of Study Standards & Alabama Developmental Standards For Preschool Children. You can view what standards each field trip aligns with on page 21.


PREK —
SECOND
GRADE
OKRA | OKRA

FARM EXPERIENCE LESSONS:

1. **SENSES ON THE FARM:** *english language arts, math and science*

What senses are used most on the farm? All of them! Using differing combinations of their senses, students will interact with different plants and creatures on the farm to explore the world around them. Students will touch the soft leaves of Lamb's Ear, smell mint and lemon balm, and taste pears and sorrel all while describing what they see and hear as well. If desired, this activity can be paired with a culinary component (an easy, sensory soup or salad).

Offered in spring, summer, and fall

2. **COLORS AND SHAPES ON THE FARM:** *english language arts and math*

How many different colors and shapes do we see on the farm? Students will be able to use their senses to gather information for classifying objects on the farm by color and shape and describe materials into categories such as smooth, soft, rough, etc. Using the color wheel, students will also be challenged to find objects in the order that the wheel is presented.

Offered in spring and fall

3. **LIVING VS. NONLIVING:** *english language arts, science, and social studies*

What makes something living or nonliving? Students will have the chance to examine examples of each (rocks, plants, leaves, bugs, etc.), and discuss what living things need to survive. Students will then explore the farm with the farmer to locate three living items and three non-living items to share with the rest of the group.

Offered in spring and fall

4 GREATER THAN/LESS THAN: *math*

Students will be able to identify whether a certain number of objects is greater than, less than, or equal to the number of objects in another group by using matching and counting strategies and by counting items in groups of up to 10. The students will receive a tour of the farm locating various flowering plants, vegetables, and fruits counting the number of parts on one plant then counting on an adjacent plant. In doing this, students will be able to determine which plant has a greater amount, lesser amount, or if they are equal.

Offered in spring and fall

5 SCIENTIFIC OBSERVATION: *math and science*

Do a plant's offspring look identical to their parent? Are all the offspring from one parent the same? Students will observe different plant "parents" and "offspring" around the farm noting various characteristics of both (e.g. size, shape, and color). Using this information, students will ultimately compare and contrast the similarities and differences between the two.

Offered in spring and fall

6 ALLITERATION ON THE FARM: *english language arts & science*

Students will explore the concept of alliteration with the standards-based objective of describing how words and phrases can supply rhythm and meaning to stories, poems, and songs. The instructor will provide examples of stories and poems that demonstrate alliteration. Students will be asked to identify these examples and, once comfortable locating alliteration within other authors' work, they will create their own poem, inspired by the teaching farm, utilizing alliteration. Students will have a chance to share their work with their peers.

Offered in spring, summer, and fall

7 **PLANT NEEDS:** *science*

Students become familiar with the different changes that occur over time in various plants and learn the purposes for each part of a plant (roots, stems, leaves, and flowers). By observing flowering plants, crops, and other vegetation on the farm at the different stages in their life cycles, students gain an understanding of how farmers participate in this process of growing food.

Offered in spring and fall

8 **SEED DISPERSAL:** *science*

Have you ever walked through a field and then found your clothes to be covered with seeds? Plants are intricately designed and have adapted to find ways in which to disperse their seeds to ensure their germination and survival. Students will examine different characteristics of seeds that allow them to do just that. Students will take the knowledge they've learned to create, construct, and test a model that exemplifies the characteristics needed for successful seed dispersal.

Offered in spring and fall

CULINARY EXPERIENCE LESSONS:

1 **RAINBOW RATATOUILLE :** *science and math*

Have you ever seen a yellow carrot? Have you ever eaten purple kale? Students will be introduced to the idea that vegetables come in a multitude of colors and eating colorful foods helps your body get what it needs (vitamins, minerals, fiber, etc.). Students will be asked to identify all of the colors present in the vegetables that are added to their dish.

Offered in spring and fall

2 **STONE SOUP:** *english language arts*

Through the reading of Stone Soup by Heather Forest, students will discuss the concepts of sharing and cooperation as well as the culinary techniques of simmering and chiffonade. They will also be able to determine how the major characters respond to major events and challenges & identify the main parts of a text.

Offered in spring and fall

3 **TEN FRAMES:** *math and science*

Using basic counting skills, students will have the opportunity to create their own fruit salad after harvesting fruit from the farm! With the help of ten frames, students will add each ingredient to their bowl, ultimately counting to 100 before tasting their salad.

Offered in late spring and fall

4 **SOUPER ADDITION:** *math and science*

Students will explore the farm to harvest vegetables to add to a communal pot of soup. Before adding the vegetables to the soup, students will partake in washing and cutting them to create two-digit amounts of an ingredient. Once ingredients are counted, students will work together to add them.

Offered in spring and fall

5 **RECIPE SEQUENCING:** *english language arts*

Students will learn to read a recipe and show command of sequencing vocabulary using key terms such as “first, then, next, last.” Students will also get to try new foods, engage with their senses, and practice their counting and motor skills.

Offered in spring and fall


THIRD
– FIFTH
GRADE

FARM EXPERIENCE LESSONS:

1 **LIFE CYCLE STUDY:** *science*

Students explore weather conditions such as temperature, light, and rain and their potential impact on plants. By acting out the behavior of plants in varying conditions, students learn the impact of seasonal and daily changes, and how farmers manage these changes using structures like greenhouses and high tunnels. We'll also touch on the importance of water conservation throughout the seasons of the year by exploring irrigation practices on the farm.

Offered in spring and fall

2 **SOIL ON THE FARM:** *english language arts, math, science and social studies*

What is soil? What is its purpose? Students will dive into the world of soil by collecting soil samples from different locations on the farm. Students will be responsible for documenting the characteristics (texture, color, etc.) of these samples, graphing them on a soil triangle, and ultimately deciding and explaining which soil is the "healthiest" on the farm.

Offered in summer and fall

3 **ECOSYSTEMS ON THE FARM:** *science*

All energy comes from the sun! But humans can't absorb energy directly from the sun - so how do we obtain it? Plants are the simple answer. Students will have the opportunity to study ecosystems in action on the farm. They will explore how plants transform sunlight into carbohydrates, and how in turn, we can benefit from that process by eating those plants or the animals who have eaten them. Can be paired with a culinary component.

Offered in spring and fall

4 **DESIGN AN INSECT:** *science and social studies*

Why do insects disguise themselves? How do insects attract mates? Both of these questions can be answered with one word: adaptation. Students will partake in a Bug Hunt on the farm, identifying three different types of insects. Students will discuss different characteristics of these insects that could contribute to their survival or reproductive processes. Afterward, students will have the opportunity to create their own insect - making sure to include adaptive characteristics that are key to its success.

Offered in spring and fall

5 **PLANT NEEDS:** *science*

Students become familiar with the different changes that occur over time in various plants and learn the purposes for each part of a plant (roots, stems, leaves, and flowers). By observing flowering plants, crops, and other vegetation on the farm at the different stages in their life cycles, students gain an understanding of how farmers participate in this process of growing food.

Offered in spring and fall

CULINARY EXPERIENCE LESSONS:

1 **GEORGE WASHINGTON CARVER:** *english language arts, science, & social studies*

Students will rotate through stations on the farm to learn facts about George Washington Carver, discover the nutritional properties of the sweet potato, and explore different ways they are used in the kitchen.

Offered in fall

2 **FRACTION CHILI :** *math*

How can you share a pie equally with six of your friends? Can each of those pieces be represented as a fraction? Students will explore and discuss the world of equivalent fractions as they chop vegetables into equal pieces to represent these fractions. These diced veggies will be added to a delicious chili that they will then eat together.

Offered in spring and fall

3 **THREE SISTERS AND INDIGENOUS PEOPLE :** *social studies*

In this lesson, students will learn about the agricultural history of the Indigenous People of the Americas. One of the prominent traditions is the 3 sisters. The 3 sisters is a farming technique where corn, beans, and squash are planted together, all mutually helping the other. Students will read about the 3 sisters and make a dish to celebrate.

Offered in late spring and fall

4 **SALSA GRAPHING:** *english language arts, math, and science*

Using ingredients from the farm (tomatoes, onion, cilantro, etc.) and supplemental ingredients (black beans, corn, limes, etc.), students will work in small groups to create their own salsa recipe after learning about the base ingredients of most salsas. Each student will have a chance to try the salsa produced by each group and they will rate their favorite. In doing so, the class will create a large set of data which will be used to answer questions about fractions, addition/subtraction and to make a bar graph.

Offered in summer and fall

5 **PLANT PARTS :** *science*

Students learn to identify six parts of a plant (roots, stem, leaves, flower, fruit, seeds) through farm exploration as well as the important job or function they each fulfill. They will then do a movement activity to help them remember the parts more easily and create a veggie stir fry incorporating all six parts of the plant!

Offered in spring and fall

6 **ADVERTISEMENTS:** *english language arts*

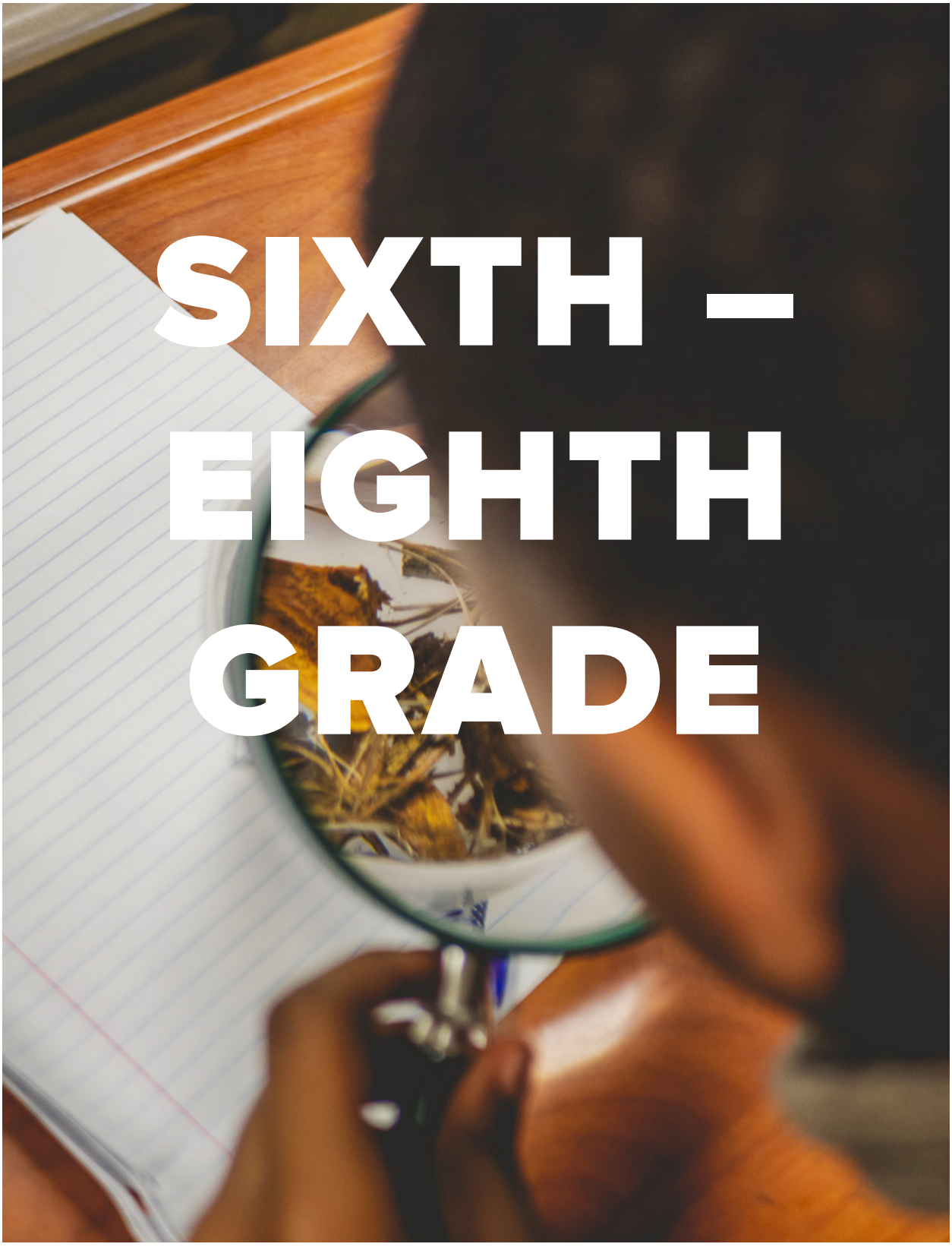
In this lesson, students will be introduced to advertising and how advertising influences a consumer's choice. After analyzing visual representations of advertising (food packaging), students will explain how this information contributes to their understanding of the product. Students will then design packaging using the Advertising Challenge worksheet. Students will eat sweet potato fries.

Offered in spring and fall

7 **HISTORY OF SOUL FOOD:** *english language arts, science, and social studies*

In this lesson, students will dive into the history of Soul Food, learning about its origin and how it came to be a cuisine that is now winning awards and prestige. They will begin to make these connections as we look into our history and the origin of certain plants we consume.

Offered in spring and fall


SIXTH –
EIGHTH
GRADE

FARM EXPERIENCE LESSONS:

1. **EROSION ON THE FARM:** *english language arts, science, and social studies*

Weathering, erosion, and deposition greatly affect the world around us. Students will explore the effects of erosion on the farm, observing, discussing, and implementing methods that farmers use to reduce its negative impacts on the land (e.g. mulching, cover crop).

Offered in spring and fall

2. **TRANSPIRATION ON THE FARM:** *english language arts, science, and social studies*

Did you know that plants have an important role to play in the water cycle? Plants conduct a process called transpiration that aids in the evaporation of water through the stomata found on their leaves. Students will explore the farm, locating a variety of crops to take stomata samples to study under the microscope, before having the opportunity to create models to represent a plant's role in the water cycle.

Offered in spring and fall

3. **AREA AND VOLUME:** *math*

Students will learn about the importance of area and volume in farming. They will understand how area and volume are different and how each is necessary to create a gardening bed. Students will work in small groups to find the area and volume of our garden beds then work as a team to fill them with compost/soil and determine how many plants can grow in them.

Offered in spring and fall

4 **IMPORTANCE OF POLLINATION:** *english language arts, math, science, and social studies*

Why are bees attracted to flowers? Do flowers need bees to survive? Students will discover the relationship between bees and flowers, by discussing and observing pollination in action. Students will collect and chart data based on the amount of times bees visit specific flowers and the characteristics those flowers exhibit.

Offered in spring and fall

5 **DECOMPOSITION AND FLOW OF ENERGY:** *science*

Students will learn about the importance of decomposers recycling nutrients back to plants. Students will learn about the pros and cons of different types of composting (industrial, home, and vermicomposting) and will learn how to set up a home composting system that works best for them.

Offered in spring and fall

6 **MAPPING THE FARM:** *math*

Students will examine various maps of the Teaching Farm (bed record, perennial map, etc.) and determine the map's purpose. Instructors will guide them to identify the essential parts of the map. Students will be divided into groups and choose one part of the Teaching Farm and create a physical map of that space on graph paper.

Offered in spring and fall

7 **ORIGIN STORIES:** *english language arts*

Students will be asked to express themselves creatively while learning about heirloom crops! Students will have the opportunity to plant heirloom varieties of crops on the farm with funky names (like "little gem lettuce" and "bull's blood beets"). Students will create mythological narratives to develop a backstory around why these crops are named the way they are.

Offered in spring

CULINARY EXPERIENCE LESSONS:

1. **CIVIL RIGHTS AND SOUL FOOD :** *english language arts and social studies*

Students will explore hidden figures in the Civil Rights Movement, specifically those who fueled the movement through food. They will learn about the role of enslaved Africans in the creation of Southern food traditions and discuss the stories behind our food.

Offered in spring and fall

2. **WRITING RECIPES WORKSHOP:** *english language arts*

After harvesting kale on the farm, students will learn how to make basic kale chips (seasoned only with salt and pepper). Students will work in small groups to develop their own recipe—deciding which seasoning and flavors they would like to create.

Offered in spring and fall

3. **RATIO PANCAKES :** *math*

Students will explore the relationship between ratios and cooking as they create their own carrot pancakes, using carrots harvested straight from the farm! Students will specifically be able to represent proportional ratios in their newly doubled recipe to ensure that they make enough batter for the entire class.

Offered in spring

4. **TRADE ON THE SILK ROAD:** *english language arts and social studies*

This lesson teaches students the importance of trade between ancient civilizations and how these ancient trade routes influenced the widespread usage of certain spices, technologies, and religions today. The class will learn about four ancient civilizations along the Silk Road—Rome, India, China, and Arabia.

Offered in spring and fall

ALCOS STANDARDS & ALABAMA DEVELOPMENTAL STANDARDS FOR PRESCHOOL CHILDREN

PREK – 2ND GRADE

SENSES ON THE FARM

PreK: *S.P.1.1 • S.P.1.1.1 • S.P.1.1.3*
K: *SC15.K.3*
1st: *SC15.1.5 • SC15.1.7*
2nd: *SC15.2.5*

LIVING VS. NONLIVING

PreK: *S.P.3.1*
K: *SCI.K.3*
1st: *SC15.1.6*
2nd: *SC15.2.7*

SCIENTIFIC OBSERVATION

PreK: *S.P.3.1*
K: *SC15.K.1 • SC15.K.3 • SC15.K.9*
1st: *SCI.1.6*
2nd: *SC15.2.5*

PLANT NEEDS

PreK: *S.P.3.1*
K: *SC15.K.3*
1st: *SC15.1.5*
2nd: *SC15.2.5*

COLORS & SHAPES ON THE FARM

PreK: *S.P.1.1*
K: *ELA21.1.14*
1st: *SC15.1.2*
2nd: *SC15.2.6*

GREATER THAN/LESS THAN

PreK: *M.P.5.1*
K: *MA19.K.6*
1st: *MA19.1.12*
2nd: *MA19.2.9*

ALLITERATION ON THE FARM

PreK: *LL.P.2.2*
K: *ELA21.K.9 • ELA21.K.9b*
1st: *ELA21.1.R3*
2nd: *RL 2.4*

SEED DISPERSAL

PreK: *S.P.4.1*
K: *SC15.K.4*
1st: *SC15.1.5 • SC15.1.7*
2nd: *SC15.2.6*

RAINBOW RATATOUILLE

PreK: *S.P.1.1 • S.P.1.1.1 • S.P.1.1.3 HDL.P.2.1 • HDL.P.2.3*

K: *ELA21.K.7 • MA19.K.6*

1st: *ELA21.1.9 • MA19.1.6a*

2nd: *ELA21.2.12 • MA19.2.2*

TEN FRAMES

PreK: *M.P.1.2*

K: *MA19.K.1*

1st: *MA19.1.14*

2nd: *MA19.1.14*

RECIPE SEQUENCING

PreK: *ELA21.K.R1*

K: *ELA21.K.1*

1st: *ELA21.1.R1 • ELA21.1.3*

2nd: *ELA21.2.R1 • ELA21.2.1 •ELA21.2.2c*

STONE SOUP

PreK: *LL.P.1.2*

K: *ELA21.K.R1 • ELA21.K.R3 ELA21.K.1 • ELA21.K.2*

1st: *ELA21.1.R1 • ELA21.1.R3 ELA21.1.1 • ELA21.1.2 • ELA21.1.3*

2nd: *ELA21.2.4 • ELA21.2.6 • ELA21.2.7e*

SOUPER ADDITION

PreK: *M.P.1.1*

K: *MA19.K.6*

1st: *MA19.1.6a*

2nd: *MA19.2.2*

3RD – 5TH GRADE

LIFE CYCLE STUDY

3rd: *SC15.3.6*

4th: *SC15.4.9*

5th: *SC15.5.10*

ECOSYSTEMS ON THE FARM

3rd: *SC15.3.5*

4th: *SC15.4.11*

5th: *SCI.5.11 • SCI.5.10*

SOIL ON THE FARM

3rd: *SC15.3.11*

4th: *SC15.4.13*

5th: *SC15.5.14*

DESIGN AN INSECT

3rd: *SC15.3.6 • SC15.3.8*

4th: *SC15.4.11 • SC15.4.9*

5th: *SC15.5.11*

PLANT NEEDS

3rd: *SC15.3.10*
4th: *SC15.4.9*
5th: *SC15.5.8 • SC15.5.9*

FRACTION CHILI

3rd: *MA19.3.13*
4th: *MA19.4.13*
5th: *MA19.5.10*

SALSA GRAPHING

3rd: *MA19.3.16*
4th: *MA19.4.20*
5th: *MA19.5.2c*

ADVERTISEMENTS

3rd: *ELA21.3.6*
4th: *ELA21.3.6*
5th: *ELA21.5.24*

GEORGE WASHINGTON CARVER

3rd: *SS10.3.3*
4th: *SOC.4.10*
5th: *SS10.5.12.2*

THREE SISTERS & INDIGENOUS PEOPLE

3rd: *SS10.3.13*
4th: *SS10.4.1*
5th: *SS10.5.3*

PLANT PARTS

3rd: *SC15.3.11b*
4th: *SC15.4.9*
5th: *SC15.5.9*

HISTORY OF SOUL FOOD

3rd: *SS10.3.6 • SS10.3.5.2*
4th: *SS10.4.10*
5th: *RL.5.1 • RI.5.8 • RI.5.9*

6TH – 8TH GRADE

EROSION ON THE FARM

6th: *SC15.6.5*
7th: *SC15.7.7*
8th: *SC15.8.16*

AREA AND VOLUME

6th: *MA19.6.26 • MA19.6.27 • MA19.6.28a*
7th: *MA19.7.1 • MA19.7.20 • MA19.7.20b*
8th: *MA19.8.29 • MA19.8.30*

TRANSPIRATION ON THE FARM

6th: *SC15.6.7*
7th: *SC15.7.1*
8th: *SC15.8.4*

IMPORTANCE OF POLLINATION

6th: *SC15.6.15*
7th: *SC15.7.10*
8th: *SC15.8.12*

DECOMPOSITION & FLOW OF ENERGY

6th: *SC15.6.15*
7th: *SC15.7.5*
8th: *SC15.8.15*

ORIGIN STORIES

6th: *ELA21.6.7a*
7th: *ELA21.7.7a*
8th: *ELA21.8.8a*

WRITING RECIPES WORKSHOP

6th: *ELA21.6.R4*
7th: *ELA21.7.R4*
8th: *ELA21.8.8a*

TRADE ON THE SILK ROAD

6th: *ELA21.6.2*
7th: *ELA21.7.R2*
8th: *SS10.8.8*

MAPPING THE FARM

6th: *MA19.6.28* • *MA19.6.28a*
7th: *MA19.7A.44*
8th: *MA19.8.30*

CIVIL RIGHTS & SOUL FOOD

6th: *SS10.6.2*
7th: *SS10.7C.11*
8th: *ELA21.8.R1*

RATIO PANCAKES

6th: *MA19.6.1*
7th: *MA19.7.1*
8th: *MA19.8.7*

Questions?

Please call 205.453.7268 or email goodschoolfood@jvtf.org.