Gilcrease Orchard Staff Led Field Trip Lesson Plan
Educator Resources
Curriculum Supported
CCSD Bus Reimbursement Grant Information

Purpose: This guide prepares educators for staff-led field trips at Gilcrease Orchard. It includes pre- and post-visit resources—such as orchard videos and "Agriculture in the Classroom" lesson plans—that align with specific curriculum standards. Information regarding the CCSD Bus Reimbursement Grant is located at the end of the document.

Send comments/questions to Reservations@thegilcreaseorchard.org or call/text 702-409-0655 ext 3

Self-Guided Field Trips: To lead your own group (including scouts and community organizations), please visit during public hours to ensure access to produce and concessions. You are welcome to adapt this guide for your needs. Please note that wagon rides are not available for self-guided visits.

Special Education, Homeschool, Preschools, or less than 50 people must contact 702-409-0655 ext 3 or Reservations@thegilcreaseorchard.org to discuss program and options. Staff Led Field Trips are geared towards for students K-3rd grade, 50-150 people

To schedule a Staff Led Field Trip at Gilcrease Orchard:

- Visit https://thegilcreaseorchard.org/field-trips-and-events/
- Costs: Students are $6.50 each. Parents/chaperones are $6.50 each. Staff teachers are free.
- **Here are questions you need to answer to fully book:**
  1. Contact info, school name, and Title 1?
  2. Grade Level
  3. # of students, # of teachers, # of chaperones
  4. Are you staying for lunch?

5. Will you bring a wheelchair/accessible device?
6. Are you buying apple cider cups? Apple cider is an additional $1 per person for all teachers, students, and chaperones. (Seasonal and may not always be available).
7. Describe your Transportation? CCSD - ensure CCSD Transportation is available
8. Agree to terms, conditions, and liability waiver
9. Have Credit/Debit Card payment ready to pay in full.
    a. Check option only avail for CCSD.

- Gilcrease Orchard Staff Led Field Trips occur in Spring and Fall.
    - Spring: Mondays, Wednesdays, and Fridays in April and first weeks of May
    - Fall: Mondays, Wednesdays, and Fridays the last week of September, October, and first week of November
- Admission fees: Support the costs of the seeds and care required to grow crops. We invite adults to help students pick their produce, but please leave the pumpkins and carrots for the children. Adult admission does not include free produce to take home.

Program Activities/Rotations:

Designed especially for kindergarten through 3rd grade, our staff-led field trips offer a fun, educational adventure three timed activities:

- Orchard Introduction (20 minutes): Discover the Orchard through a lively presentation.
- Bees & Chickens (30 minutes): Meet our buzzing bees and cheerful chickens while learning their important roles.
- Seasonal Picking & Wagon Ride (30 minutes): Hop on a wagon ride to pick fresh produce!
    - **Fall: Students pick pumpkins**
    - **Spring: Students pick carrots**

ADULTS NOTE: Picked produce is for students only; adults do not take home pumpkins or carrots.

Optional Picnic Time: If your school brings packed lunches, enjoy an extra 30 minutes in our picnic area.

Children Learning about bees at beehive exhibit. Bees are inside glass and wood housing.

View of presentation beehive exhibit area.

Educator discusses chickens and showing students the different types and colors of eggs chickens produce. Farmer helping students pick carrots. Carrots may be challenging to get out of ground. Students and adults may need to get their hands dirty, just like a real farmer. Hand washing stations are available later in the program.
All adults will need to help students pick carrots. Each student will get carrots to take home. The field has areas of unlevel ground, dirt, and hills which closed toed shoes are needed.

Important Information

Facilities: Programs are held outdoors. Portable toilets and hand-washing stations are available near the picnic area.

Curriculum: Staff-led programs are tailored for K–3rd grade based on student interest and knowledge levels.

Attire: Students must wear sturdy, closed-toe shoes and weather-appropriate clothing (hats/sunscreen for heat; jackets/gloves for cold).

Essentials: Every student must bring their own water.

Adults Role: Adults should assist students with harvesting. Please note that pumpkins and carrots are for students only; adult admission does not include take-home produce.

Gilcrease Orchard Staff Led Field Trip Lesson Plan

Introduction Presentation: approx. 20 mins. The location is the outdoor amphitheater in good weather.

Welcome to Gilcrease Orchard! Discuss safety and plan for trip

- We're here to learn about fruit & vegetables here in the outdoor amphitheater

Then we'll split the group up into 2:

- Half will learn about bees and chickens. The other half will go on a wagon ride to pick pumpkins (fall) or carrots (spring) then switch. Everyone will get to do everything.
- * Not all groups are split into 2 groups. Smaller groups, or when necessary, we keep the groups together.
- We do have tools nearby. Don't touch tools or sharp objects.
- As this is a working orchard, watch your step with uneven ground. Walk safely, watching where you step as this is a working orchard with uneven paths and rocks.

Chaperone/Adults Help:

- We need your help!
- We are here today for the students to learn. We ask chaperones to help throughout the field trip by giving focus to presenters and we will need chaperones to help in the pumpkin/carrot patch.
- We ask ALL adults to help students pick produce (carrots or pumpkins) and leave produce for the students.

What is an Orchard?

- Who's first time is it to an Orchard? What do you think is an Orchard? An Orchard can be lots of different things. (Have students answer. Positively respond to all answers, goal is to reinforce students' confidence and gain understanding of knowledge level)
- An orchard is a place with lots of trees, fruit, chickens, like a farm but with plants etc.
- Here we have over 8000 fruit trees!

Gilcrease Orchard brief history:

- The Gilcrease family moved here in 1920, over 100 years ago from Reno, Nevada! Two brothers Ted (1 year old) & Bill (3-year-old) came with their mom (Elda) and dad (Leonard) and started an alfalfa farm with chickens and turkeys.
- Bill and Ted were the two brothers who inherited the orchard and farm.

- Do you have any brothers, sisters, siblings, cousins? Do you think you could start a farm with them and keep it going for over 100 years?
- Now it is a non-profit organization, so you (members of the Las Vegas community) can pick fresh fruit and vegetables and have a farm experience.

Fruit: What is a fruit?

- Some fruit is the part of the plant that grows with seeds and has skin on the outside. Usually seeds grow on the inside, but not always.
- At the orchard we grow peaches, apricots, pomegranates, pears, apples, and more! What is your favorite fruit?
- Have a selection of fruits in season on the table and show students. Can pass fruit down for hands on discovery.

Vegetables: What is a vegetable?

- A vegetable is the root, stem, or leaf that people can eat.

Vegetable Yoga:

- Root: Stand up and stretch to your toes reaching to our roots. Are there roots you like to eat? What about carrots? Yum!
- Stem: Reach tall and straight to the sky. Are there stems you like to eat? What about celery?
- Leaf: Shake your hands like a leaf in the wind. Are there leaves you like to eat? Lettuce? Salad?

Where do fruits come from? Flowers & Pollination

- Fruit grows from the flowers of a plant. When a bee, insect, and even birds visit a flower to drink nectar, they get covered in pollen. Bees have pollen sacks on their legs to store the pollen. When the bee visits a 2nd flower, some pollen is left. Now the flower has everything it needs to grow into fruit. We call this pollination. Can you all say pollination?

Activity: Pollination gives us food (Optional, if time allows)

- We can thank bees for pollinating lots of food: Presenter reads out loud this list of food, and when the students like something, they rub their tummy and say YUMMM!

List of Pollinated Foods: and what type of bee pollinates them

ALMOND**:** honeybees

APPLE: honeybees, blue mason orchard bees

APRICOT: bees
AVOCADO: bees, flies, bats
BANANA: birds, fruit bats
BLUEBERRY: Over 115 kinds of bees, including bumblebees, mason bees, mining bees and leafcutter bees
CHERRY: honeybees, Bumblebees, Solitary bees, flies
CHOCOLATE: midges (flies), stingless bees (Students usually yell for chocolate)
COFFEE (for the adults): stingless bees, other bees or flies
GRAPEFRUIT: bees
GOURDS: bees
MANGO: bees, flies, wasps
MELON: bees
PEACH: bees
PEAR: honeybees, flies, mason bees
PUMPKIN: squash and gourd bees, bumblebees
RASPBERRY and BLACKBERRY: honeybees, bumblebees, solitary bees, hover flies
STRAWBERRY: bees
TEA PLANTS: flies, bees and other insects
TOMATO: bumble bees
VANILLA: bees

- On the 3rd buzz let's thank all the bees! Buzz Buzz Buzz Thank you bees!

Split group in half : Half go on the wagon ride to pick pumpkins/carrots and the other half walk to the bees and chickens

Wagon Ride & Pick Produce: approx. 30 mins
Wagon Ride & Presentation: Ride through the orchard learning about fruit trees, burrowing owls, pumpkins/carrots receiving instruction for picking in the field.

- *Note: Wagon has steps to walk up. An accessible ramp is available if indicated to orchard staff prior to program during booking.*
- Information on Pumpkins or Carrots, and facts on Gilcrease Orchard history.
- Information on Burrowing Owls: The wagon ride passes by a constructed wild burrowing owl habitat created in partnership with The United States Fish and Wildlife Service.
- Information on Desert Tortoises: The wagon ride passes by a captive desert tortoise habitat created in partnership with The United States Fish and Wildlife Service, Tortoise Group, and Get Outdoors Nevada.

Pick Pumpkins (in Fall): Each student gets 1 pumpkin. Adults/chaperones will help cut and write names on pumpkins. Closed-toe sturdy shoes and walking safely are important.

Pick Carrots (in Spring): Each student gets to pick several carrots and places them in a box to take box to school. Picking carrots requires digging with hands into loosened soil. Chaperones and adults may need to help students pick carrots. Teachers can give carrots back out at school for students to take home.

ADULTS NOTE: Picked produce is for students only; adults do not take home pumpkins or carrots.

Switch: The first group on wagon gets dropped off at chickens/bees. Group at chickens/bees loads up on wagon.

Bee Presentation:

- Bees are important for pollinations to have fruits and vegetables
- Three types of bees, workers, drones, and the queen bee.
- Queen Bee is female, and she can lay over 3000 eggs a day!
- Drones are male bees. They mate with virgin queens so that the queen can lay viable eggs.
- When most eggs hatch, they are worker bees. Worker bees are all female. Worker bees go get nectar and do most of the work around the hive. They clean, repair, and build combs in the hive. They forage water and food, store and create honey, and protect the hive from predators. They also take care of the queen and young larvae.
- Discuss and show beekeeping suit and how it keeps beekeepers protected
- Discuss honey information
- Show the differences between the bees at the presentation hive. Try and find the Queen, as she usually has a group of worker bees surrounding her.
- Show the waggle dance that worker bees. That's how the bees communicate with each other.
- Let youth ask questions and answer.

Chicken Presentation:

- There are many varieties of chickens. We have about 30 different varieties with many colors and sizes.
- Chickens eat a variety of food including fruits, vegetables, seeds, insects, and meat. They are omnivores.

- Chickens can make about 30 different sounds to communicate. Hens are female chickens and males are called roosters.
- Roosters call and wake up the hens to warn them of danger.
- Hens lay eggs, about 1 per day. Eggs come in different colors. Hens need to incubate or keep the eggs warm if they are to hatch into a chick.
- Hens are fantastic mothers and will protect their chicks from predators like coyotes, or foxes. The chickens at the orchard are fenced in to help protect them from natural predators like owls, hawks, and coyotes.
- Chickens can fly, and they can also run over 25 miles per hour.
- They can see in color, have dreams when sleeping.
- What are some of your favorite foods that are made with eggs?
- Cake, Cookies, scrambled eggs, French toast, hard boiled eggs, and deviled eggs
- Let's say thank you chickens for delicious eggs! On 3 say Thank you chickens!
- Pass eggs around to see the different colors of eggs.
- Let youth ask questions and answer.

End of Program: Gilcrease Orchard Led Programs are approximately 1.5 hours long.

- Optional: Classes may stay to eat a sack lunch in the shaded picnic area. We do not have an indoor area for lunch. There are porta potties and hand washing stations near the picnic area.
- Concessions may be available after the program. We cannot guarantee certain products will be available. Students can purchase their own items if they have funds.
- Teachers, please plan to load pumpkins on to bus or have students carry pumpkins or carrots.
- In Fall, bringing wagons or cardboard boxes that fit in bus cargo areas is a great idea. Some teachers prefer to have students hold their pumpkin on the bus.

Additional Resources for Educators:

Resources can be used as pre and post activities to connect your students to Gilcrease Orchard and further support curriculum points.

- **Video: FOX5 Las Vegas "Where the water comes from for Gilcrease Orchard":**
  - **https://www.youtube.com/watch?v=U_4fkolouSg**
  - It's an agricultural oasis in the northwest part of the Las Vegas Valley. Gilcrease Orchard is 60 acres (about the area of a large shopping mall) of fruit trees and vegetables that survive here thanks to an artisan well.
- **Gilcrease Orchard Videos:**
  - **How to Pick: https://www.youtube.com/@TheGilcreaseOrchardLasVegas/featured**
  - **How to harvest different vegetables: https://thegilcreaseorchard.org/recipes/#recipes**
  - **Outdoor Nevada: https://www.pbs.org/video/outdoor-nevada-gilcrease-orchard-and-sanctuary/**
- **Video: Nevada Science Center Video: VFT: Farming in Las Vegas at Gilcrease Orchards**
  - Video shows how to pick carrots, benefits of bats, eggs, chickens, history, disease, climate issues, and growing in the heat.
- **Apple Cider Production Video:**
  - **How it's Made - Gilcrease Orchard Apple Cider**
- **UNLV Special Collections: Collection of historical pictures and records for the Gilcrease family and Gilcrease Orchard**
- **Agriculture In The Classroom: https://agclassroom.org// &** https://agclassroom.org/teacher/
  - Lesson Plans, videos, and more!
  - A is for Apples
  - Freshest Fruits
  - Pumpkins... Not Just For Halloween (Grades K-2)
  - Honey Bees: A Pollination Simulation
  - PDF activity sheet Anatomy of a Worker Bee , Anatomy of a Worker Bee Answer Sheet
  - Eggology (Grades K-2)
  - From Hen to Home (Grades K-2)
- **Desert Tortoise Resources:**
  - https://www.reviewjournal.com/entertainment/food/pumpkin-patch-is-open-at-gilcrease-orchard-in-las-vegas-1866598/attachment/families-watch-a-desert-tortoise-at-gilcrease-orchard-in-las-vegas-thursday-sept-26-2019/
  - https://www.fws.gov/species/desert-tortoise-gopherus-agassizii
  - https://tortoisegroup.org/desert-tortoise-info/
- **Burrowing Owl Resources:**
  - https://www.fws.gov/species/burrowing-owl-athene-cunicularia
  - https://www.birdandhike.com/Wildlife/Birds/21-Strig/2-Strig/Buow/_Buow.htm
  - https://www.reviewjournal.com/life/volunteers-help-make-life-easier-for-burrowing-owls-in-valley/

- **Bee Resources:**
  - https://www.pollinator.org/pollinated-food
  - Nevadabugs.org PDF of Nevada Bee Identification Guide: https://nevadabugs.org/wp-content/uploads/2017/03/Nevada-Bee-Guide-small-size.pdf

Curriculum Supported:

Note these points are supported and are not covered in full.

NGSS Curriculum Supported:

Students who demonstrate understanding can:

K-LS1-1. **Use observations to describe patterns of what plants and animals (including humans) need to survive.** [Clarification Statement: Examples of patterns could include that animals need to take in food but plants do not; the different kinds of food needed by different types of animals; the requirement of plants to have light; and, that all living things need water.]

The performance expectation above was developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices

Analyzing and Interpreting Data
Analyzing data in K–2 builds on prior experiences and progresses to collecting, recording, and sharing observations.
- Use observations (firsthand or from media) to describe patterns in the natural world in order to answer scientific questions.

Connections to Nature of Science

Scientific Knowledge is Based on Empirical Evidence
- Scientists look for patterns and order when making observations about the world.

Disciplinary Core Ideas

LS1.C: Organization for Matter and Energy Flow in Organisms
- All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.

Crosscutting Concepts

Patterns
- Patterns in the natural and human designed world can be observed and used as evidence.

Connections to other DCIs in kindergarten: N/A

Articulation of DCIs across grade-levels:
1.LS1.A ; **2.LS2.A** ; **3.LS2.C** ; **3.LS4.B** ; **5.LS1.C** ; **5.LS2.A**

Common Core State Standards Connections:
ELA/Literacy -
W.K.7 Participate in shared research and writing projects (e.g., explore a number of books by a favorite author and express opinions about them). (K-LS1-1)
Mathematics -
K.MD.A.2 Directly compare two objects with a measurable attribute in common, to see which object has "more of"/"less of" the attribute, and describe the difference. *(K-LS1-1)*

* The performance expectations marked with an asterisk integrate traditional science content with engineering through a Practice or Disciplinary Core Idea.

Students who demonstrate understanding can:

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

The performance expectation above was developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices

Developing and Using Models
Modeling in K–2 builds on prior experiences and progresses to include using and developing models (i.e., diagram, drawing, physical replica, diorama, dramatization, or storyboard) that represent concrete events or design solutions.
- Develop a simple model based on evidence to represent a proposed object or tool.

Disciplinary Core Ideas

LS2.A: Interdependent Relationships in Ecosystems
- Plants depend on animals for pollination or to move their seeds around.

ETS1.B: Developing Possible Solutions
- Designs can be conveyed through sketches, drawings, or physical models. These representations are useful in communicating ideas for a problem's solutions to other people. *(secondary)*

Crosscutting Concepts

Structure and Function
- The shape and stability of structures of natural and designed objects are related to their function(s).

Connections to other DCIs in second grade: N/A

Articulation of DCIs across grade-levels:
K.ETS1.A ; **5.LS2.A**

Common Core State Standards Connections:
ELA/Literacy —
SL.2.5 Create audio recordings of stories or poems; add drawings or other visual displays to stories or recounts of experiences when appropriate to clarify ideas, thoughts, and feelings. *(2-LS2-2)*
Mathematics —
MP.4 Model with mathematics. *(2-LS2-2)*
2.MD.D.10 Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph. *(2-LS2-2)*

* The performance expectations marked with an asterisk integrate traditional science content with engineering through a Practice or Disciplinary Core Idea.

The section entitled "Disciplinary Core Ideas" is reproduced verbatim from *A Framework for K-12 Science Education: Practices, Cross-Cutting Concepts, and Core Ideas*. Integrated and reprinted with permission from the National Academy of Sciences.

Students who demonstrate understanding can:

3-LS1-1. **Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.** [Clarification Statement: Changes organisms go through during their life form a pattern.] [*Assessment Boundary: Assessment of plant life cycles is limited to those of flowering plants. Assessment does not include details of human reproduction.*]

The performance expectation above was developed using the following elements from the NRC document *A Framework for K-12 Science Education*:

Science and Engineering Practices	Disciplinary Core Ideas	Crosscutting Concepts
Developing and Using Models Modeling in 3–5 builds on K–2 experiences and progresses to building and revising simple models and using models to represent events and design solutions. • Develop models to describe phenomena. ***Connections to Nature of Science*** **Scientific Knowledge is Based on Empirical Evidence** • Science findings are based on recognizing patterns.	**LS1.B: Growth and Development of Organisms** • Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.	**Patterns** • Patterns of change can be used to make predictions.

Connections to other DCIs in third grade: N/A

Articulation of DCIs across grade-levels:
MS.LS1.B

Common Core State Standards Connections:

ELA/Literacy —

RI.3.7 Use information gained from illustrations (e.g., maps, photographs) and the words in a text to demonstrate understanding of the text (e.g., where, when, why, and how key events occur). *(3-LS1-1)*

SL.3.5 Create engaging audio recordings of stories or poems that demonstrate fluid reading at an understandable pace; add visual displays when appropriate to emphasize or enhance certain facts or details. *(3-LS1-1)*

Mathematics —

MP.4 Model with mathematics. *(3-LS1-1)*

3.NBT Number and Operations in Base Ten *(3-LS1-1)*

3.NF Number and Operations—Fractions *(3-LS1-1)*

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The section entitled "Disciplinary Core Ideas" is reproduced verbatim from *A Framework for K-12 Science Education: Practices, Cross-Cutting Concepts, and Core Ideas*. Integrated and reprinted with permission from the National Academy of Sciences.

- SL.1.1a - Follow agreed-upon rules for discussions (e.g., listening to others with care, speaking one at a time about the topics and texts under discussion).
- SL.1.3 - Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.
- SL.1.2 - Ask and answer questions about key details in a text read aloud or information presented orally or through other media.
- SL.2.3 - Ask and answer questions about what a speaker says in order to clarify comprehension, gather additional information, or deepen understanding of a topic or issue.
- SL.3.1c - Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- SL.3.2 - Determine the main ideas and supporting details of a text read aloud or information presented in diverse media and formats, including visually, quantitatively, and orally.
- SL.3.3 - Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

CCSD Bus Reimbursement Grant Information

Dear CCSD Educator:
Gilcrease Orchard offers bus reimbursement for CCSD yellow school buses up to $500 each field trip. We will not reimburse for private/charter buses.

Submit the bus reimbursement form AFTER booking your field trip or AFTER your field trip has occurred. The form does NOT book a field trip. You must already have a field trip booked from the Gilcrease Orchard website before submitting this bus form.

1. **To submit, fill out the CCSD Bus Reimbursement for a Gilcrease Orchard Field Trip Microsoft Form. Gilcrease Orchard Field Trip Bus Grant Microsoft Form Link**

2. **Then email bus invoice/receipt from CCSD Transportation to Janina@thegilcreaseorchard.org**

   Both form and Bus Receipt Must be submitted by May 31 for Spring or Nov 30 for Fall otherwise submission will not be processed or paid.

3. **Please allow 2-4 weeks for processing the check and we'll send it in the mail. Thank you!**

If you have questions on Bus Reimbursement Grant, call/text Gilcrease Orchard Outreach and Education Program Manager at (702) 409-0655 ext 3