



Cheekwood GROWS

Cheekwood Grows Garden - 3rd Grade

About

During this program, students will learn about vegetable gardening, parts of a plant, and plant/pollinator adaptations. They will gain an understanding of where food comes from and be comfortable growing, harvesting, and tasting fresh produce. The program has multiple components that take place over the course of a semester: a classroom pre-visit, a field trip to Cheekwood, observing plant growth in the classroom, and a weekend family field trip.

Objectives

1. Students will learn about the importance of being able to grow their own food and feel empowered to do so in their classroom and at home.
2. Students will understand what a plant needs to grow by reading seed packets and accurately measuring the garden bed and planting seeds.
3. Students will observe a variety of vegetable seeds, learning how different seed sizes and shapes can affect plant growth and distribution.
4. Students will be able to identify common pollinators and learn about why different pollinators are attracted to various kinds of flowers.
5. Students will learn about plant adaptations and how they help plants survive in the garden ecosystem.
6. Students will identify vegetables that are ready to be harvested and learn harvesting techniques. Students will identify the part of the plant they are harvesting and tasting.
7. Students will be able to monitor plant growth in the classroom and understand how different growing conditions can impact growth.

About the Cheekwood GROWS Garden

The Cheekwood GROWS Garden is a kitchen and cutting garden located behind the Frist Learning Center. A kitchen garden is a small-scale vegetable and herb garden ideal for hands-on learning. The Cheekwood GROWS Garden is an interactive space where people of all ages can learn about edible plants and how to grow them in Tennessee. Throughout the year, the garden is home to educational programs which empower young people to grow their own food. Program participants can experience a full cycle of growth; they plant, harvest, and cook with delicious fresh produce. Visitors can explore this space with all five senses and find inspiration in fruits, veggies, and herbs both familiar and new.

Vocabulary

Pollination – The process of pollen moving from flower to flower allowing plants to reproduce through fruit and seed production.

Soil – Growing material consisting of living and non-living components: microorganisms, organic matter, air, and water.

Seedling – A young plant that grows from a seed.

Germination – The very beginning of the growth of a seed into a seedling.

Perennial – A plant that continues to grow year after year, often going dormant in areas with cold winters.

Annual – A plant that only lives for one growing season.

Crop – A plant or plant product that is grown and harvested for consumption.

Sowing – The act of scattering seeds on land or on soil so that they may grow.

Transplanting – Moving a fully germinated seedling from one place to another, typically from a small pot or tray into a larger pot or the ground.

Ecosystem – A system of living and non-living things interacting in nature.

Adaptation – The process whereby an organism becomes better able to live in its ecosystem.

Harvesting – The process of gathering a ripe crop from the garden.

Grow zone – A geographical area describing where certain plants can grow.

Prediction – A statement about a future event or data.

Seasonality – The quality of varying with or depending on the season or time of year.

Greenhouse – A glass building in which plants are grown that need protection from cold weather.

Standards Covered

- 3.LS1.1) Analyze the internal and external structures that aquatic and land animals/plants have to support survival, growth, behavior, and reproduction.
- 3.LS4.1) Explain the cause-and-effect relationship between a naturally changing environment and an organism's ability to survive.
- 3.LS4.2) Infer that plant and animal adaptations help them survive in land and aquatic biomes.
- 3.MD.B.4) Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units: whole numbers, halves, or quarters.
- 3.MD.D.8) Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exploring rectangles with the same perimeter and different areas or with the same area and different perimeters.

Pre-visit

The pre-visit will consist of an in-person meeting between the Garden Educator and the class at the school. There will be a PowerPoint presentation that is shared about Cheekwood's history and gives a brief introduction on what the students will be learning during their field trip. During this visit, a few questions will be asked about plant parts, the lifecycle of a plant, and recognition of various vegetables to assess students' knowledge before their field trip. Students will vote on which vegetables they would like to plant in their beds, picking from a few seasonal options.

Cheekwood Field Trip

1. Students will start off at the Frist Learning Center where they will unload from the bus and be greeted by the Garden Educator. The educator will give an overview of the guidelines students should follow in the garden and briefly review the material covered during the pre-visit. (10 min)
2. Teachers will already have students pre-assigned to 3 groups. One educator or docent will be placed with each group.
3. Students will make their way over to the GROWS garden and will begin their stations.
 - a. Planting in the Garden (25 minutes)
 - i. At this station, students will plant seeds into their class garden bed. Students will read the information on seed packets and

observe and compare different types of seeds. They will learn how to measure seed spacing and depth using a ruler and understand why seeds need to be planted at different depths and spaced apart. They will then plant seeds in their class garden beds, working in pairs. Students will then get to sample fresh produce from the garden.

- b. Garden Ecosystem & Adaptations (*25 minutes*)
 - i. At this station, students will learn about pollinators and discuss plant adaptations. They will learn why certain pollinators are attracted to certain plants by discussing flower shape and color. They will also discuss and investigate other plant adaptations such as scents, thorns, and leaf size. Students will complete a scavenger hunt to identify different plant adaptations in the garden.
- c. Planting for the Classroom (*25 minutes*)
 - i. Students will learn about herbs and their many uses and will interact with a fully-grown example of the herb they will plant and take back to the classroom.
 - ii. Students will discuss what plants need to grow, how plants can change when placed in different growing conditions, and how to properly label seeds once they are planted in their containers.
 - iii. Students will plant herb seeds in containers to take back to the classroom, with a clear understanding of where they should place their containers and how often to water them.

Post-Visit

Students will take care of the seeds they take back to the classroom and observe plant growth in journals, provided digitally to teachers along with plant care instructions. The Garden Educator and the classes will be in communication sharing pictures/videos of how their plants are doing. The Garden Educator will also be available to answer questions about the herbs growing in the classroom, trouble-shoot, or share plant growth progress in real time via video chat. If classes are able, the Garden Educator will return to the classroom to lead a gardening DIY project and/or bring vegetables from their class garden beds for sampling once they have finished growing.

For additional gardening inspiration, each classroom will be provided with a copy of *Let's Get Gardening: 30 easy gardening projects for children*. This book is full of creative container gardening projects that make use of accessible, often

recycled, materials. Students will find a wealth of information on pollinator-friendly plants, soil composition, gardening tools, and more.

Post Visit Book Suggestions

From Seed to Plant by Gail Gibbons

Flower Talk: How Plants Use Color to Communicate by Sara Levine

Plants Fight Back by Lisa J. Amstutz

How Did That Get in My Lunchbox? The Story of Food by Chris Butterworth

Jump Into Science: Dirt by Steve Tomecek

Wiggling Worms at Work by Wendy Pfeffer

Destination Cheekwood Family Field Trip

Families will visit Cheekwood on a Saturday. They will tour the Cheekwood GROWS Garden to see the progress of the class garden beds and participate in a harvesting & cooking activity featuring fresh produce from the garden. Lunch will be provided, and families will have time to explore Cheekwood's grounds and enjoy seasonal garden displays. Free, year-long family memberships will be available to all Destination Cheekwood attendees.