

The Gardens on Spring Creek is a beautiful setting to dig into science education. We offer hands on school programs for all grades that are unique, interactive and standards based. Each program brings a different lens to the beautiful landscapes and animals here at the Gardens. Each tour has 4 stations and planting activities are included with each tour.

Groups are welcome to stay and play or have lunch in the Children's Garden after their tour. Groups are not permitted to enter the Butterfly House after their tour.

Fees: \$5 per student for most tours (Soil to Snack tour is \$7 per student to cover food costs). Scholarships are available for schools who are 40% or greater Free & Reduced Lunch eligibility (as cited by the Colorado Department of Education or the Wyoming State Board of Education for the previous school year).

Self-Guided Tours: Groups of 10+ more are eligible for group pricing tickets must be pre-purchased a week in advance \$2 off admission prices.

Chaperones: To provide the best experience for your students and for the safety of all visitors, we require a 1:5 ratio of chaperones to students. If you meet or exceed the 1:5 chaperone ratio, chaperones will receive free admission. If you do not meet the 1:5 chaperone ratio, **ALL** chaperones will pay the adult general admission rate of \$11.

Apr. 1st - Oct. 31st		Nov 1 st – March 30 th
Garden Tours Without Butterfly House Station • Tuesday -Friday	Garden and Butterfly Tours with Butterfly House Station • Tuesdays - Thursday	 Winter Butterfly Tours Tuesdays - Thursday 9:00 a.m. start time
 9:00 a.m. or 9:30 am start time Limited to 75 students plus chaperones 	 9:00 a.m. start time Limited to 75 students plus chaperones 	 Limited to 30 students plus chaperones Inside tour unless weather is nice
Tours Included:	Tours Included:	Tours Included:
Sensory Garden Tour	Sensory Garden Tour	Sensory Garden Tour
Plant-astic Scientists	Wacky & Wonderful Plants	Bountiful Butterflies
Pollinators Among Us	Pollinators Among Us	Taking Flight
Native Plants	Bountiful Butterflies	
Soil to Snack	Taking Flight	
Bee-Empathetic (High School		
Friday only)		

Scheduling: The Gardens' staff requires at least two weeks advance notice to book a field trip.

Bring the Gardens to your Classroom!

Tree Trunks

Filled to the brim with activities and materials for all ages, these arbor-themed kits are a collaborative project made possible by Society of American Foresters, the Gardens on Spring Creek, Front Range Community College, Colorado State Forest Service, and US Forest Service. Trunks are available for elementary school or middle school to adult. **Cost**: \$50 refundable deposit

PSD Environmental Learning Kits: Our Pollinators Among Us tour can be translated to your classroom with ease. All the lessons and materials are available through the PSD EE Kits.

Sensory Garden Tour: 90 minutes

Recommended for Pre-K and unique learning groups

Put on your bee and butterfly wings and travel around our Garden exploring the sights, sounds, textures, smells and colors of the Garden. Geared for the younger learner, this program is hands on, fast paced and fun with a focus on observation and exploration. Students will also hear a story, discuss plant needs and plant their very own seed to take home.

Optional: Add the Butterfly House

Customization: This tour provides a great deal of customization of content and focus depending on what you are learning in the classroom or the unique needs of your group.



CO STATE STANDARDS

Pre-K

<u>Physical Science</u> 1:1 Recognize that physical properties of objects and/or materials help us understand the world.

<u>Life Science:</u> 2:1 Recognize that living things have unique characteristics and basic needs that can be observed and studied.

Earth and Space Science 3:2 The acquisition of concepts and facts related to the natural and physical world and the understanding of naturally occurring relationships.

Number and Quantity P.CC.A. Counting & Cardinality: Know number names and the count sequence. P.CC.B. Counting & Cardinality: Recognize the number of objects in a small set.

Movement Competence and Understanding 1:1 Travel in a variety of directions using basic locomotor skills, and demonstrate understanding of personal and

general space.

Plant-astic Scientist Tour: 2 hours

Recommended for K-3rd Grade

From the smallest seed to the tallest flower, plants feed us, clothe us, heal us and inspire us. How does something so small become so important? Come explore the awe-inspire world of plants as **Plant-astic** scientists.

Stations:

- What is a seed?- students explore the characteristics, parts, functions and adaptations of edible seeds through sorting and dissection activities.
- How Plants Grow students model the life cycle of a plant and discover what they need to grow as they plant a seed to take home
- How Seeds Move- Students will examine and test the inspiring ways seeds move and are dispersed in the garden.
- Feed me!
 - (Kinder and 1st) Plant Parts We Eat Students will explore the different parts of plants we eat and play a fun plant parts harvest relay.
 - (2nd and 3rd grade) How Plants Eat students will explore the process and importance of photosynthesis through a fun active relay.

COLORADO

Kindergarten

Life Science:

2:1 To live and grow, animals obtain food they need from plants or other animals, and plants need water and light.

Number and Quantity K.CC.B. Counting & Cardinality: Count to determine the number of objects.

Data Analysis, Statistics and probability K.MD.B. Measurement & Data: Classify objects and count the number of objects in each category.

Movement Competence and Understanding <u>1:1</u> Demonstrate body and spatial awareness through movement.

Social and Emotional Wellness <u>3:1</u> Demonstrate respect for self, others, and equipment. <u>3:2</u> Demonstrate the ability to follow directions.

STATE

1st Grade

Life Science:

2:1 All organisms have external parts that they use to perform daily functions.

2:2 Young organisms are very much, but not exactly, like their parents, and also resemble other organisms of the same kind.

Social and Emotional Wellness 3:1 Work independently and with others to complete work. 3:2 Follow the rules of an activity.

2nd Grade

Life Science: 2:1 Plants depend on water and light to grow and on animals for pollination or to move their seeds around.

<u>Civics</u> 4: 1. Advocate for ideas to improve communities.

STANDARDS

3rd Grade

Life Science:

2:1 Organisms have unique and diverse life cycles.
2:3 Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.
2:5 Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.

Social and Emotional Wellness 3:1 Demonstrate positive social behaviors during physical activity.



Wacky & Wonderful World of Plant Tour: 2 hours

Recommended for Grades 3rd-5th

Come explore the wacky and wonderful world of plants with us. There are over 290,000 different species of plants! Plants unique, beautiful, tasty and necessary for life on Earth! Students will investigate the needs of plants, create their own terrarium to wear home, explore the adaptations that allow plants to live in harsh environments, play the Photosynthesis game and get to know our native Colorado plants.

- **Earth's life support** students will explore the chemical process and importance of photosynthesis through a fun active relay.
- **Plants in a bubble** Students will challenge their assumptions and explore what it really takes for plants to grow by creating their own wearable terrarium.



• Hard Core Plants – Students will explore our Undaunted and Foothills gardens to investigate the internal and external adaptations that allow plants to live in harsh Colorado environments.

• **Colorado Tropics** – Students will walk through the sub-tropical gardens of our Butterfly House and compare these humid loving plants to our native neighbors.

COLORADO

3rd Grade

Life Science:

2:3 Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.
2:4 Some living organisms resemble organisms that once lived on Earth.

Social and Emotional Wellness 3:1 Demonstrate positive social behaviors during physical activity.

Geography

2:2. The concept of region is developed through an examination of similarities and differences in places and communities.

STATE

4th Grade

<u>Life Science:</u> 2:1 Organisms have both internal and external structures that serve various functions.

<u>Prevention and Risk</u> <u>Management</u> 4:1 Demonstrate knowledge of safe practices in a physical activity setting.

STANDARDS

5th Grade

<u>Physical Science:</u> <u>1:4</u> The energy released from food was once energy from the sun.

Life Science:

2:1 Plants acquire their material from growth chiefly from air and water.2:2 Matter cycles between air and soil and among plants, animals and microbes as these organisms live and die.

Pollinators Among Us Tour: 2 hours

Recommended for Grades: 2nd-5th

Join us in the Garden to explore the curious and important world of pollinators! During this program students put on their community scientist hats and explore the role of pollinators in food production, the process of pollination, our local pollinators, and how we can help support pollinators at our homes. Students will plant a pollinator's favorite plant to take home.

Stations:

 What is the big deal about pollinators? – Students investigate the interdependence between pollinators and flowers through modeling and flower dissection in our Butterfly House.



- Pollinators come in all shapes and sizes Students become citizen scientists and learn how to look for and identify local pollinators by their unique characteristics and adaptations.
- 3. **Pollinators at risk** Students become pollinators in this active critical thinking game that challenges them to consider and discuss how human's and nature can positively and negatively affect our pollinators.
- 4. **Pollinator Stewards** Student will become stewards of their environment by planting a beneficial pollinator plant to take home.

COLORADO

2nd Grade

Life Science:

2:1 Plants depend on water and light to grow and on animals for pollination or to move their seeds around.

2:2 A range of different organisms lives in different places.

Math:

2.OA.B. Operations & Algebraic Thinking: Add and subtract within 20.

<u>Geography</u>

2: 2. People in communities manage, modify, and depend on their environment

<u>Civics</u> 4: 1. Advocate for ideas to improve communities.

Reading for All Purposes 2: 2. Apply specific skills to comprehend and fluently read informational texts.

STATE

3rd Grade

Life Science:

2:1 Organisms have unique and diverse life cycles.

2:3 Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.

2:5 Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.

<u>Reading for All Purposes</u> 2:2 Apply strategies to fluently read and comprehend various informational texts.

Social and Emotional Wellness 3:1 Demonstrate positive social behaviors during physical activity.

STANDARDS

4th Grade

Life Science:

2:1 Organisms have both internal and external structures that serve various functions.

<u>Civics</u>

4: 1. Identify, investigate, and analyze multiple perspectives on civic issues.

5th Grade

Life Science:

2:2 Matter cycles between air and soil and among plants, animals and microbes as these organisms live and die.

Social and Emotional Wellness 3:2 Work cooperatively and productively in a group.

Oral Expression and Listening 1: 2. Present to express an opinion, persuade, or explain/provide information.

Native Plants Tour: 2 hours

Recommended for Grades: 2nd-4th

We live in a pretty fantastic state. Hot summers, cold winters, droughts and floods make our plants particularly undaunted by our rugged environment. Come on a hike though the gardens and meet the native plants in our foothills, prairie, alpine and undaunted landscapes.

Stations:

- 1. Native Plant Professors Students will be plant professors and teach their peers about some native plants and their cultural uses in our Foothills Garden.
- Living on the Prairie Come explore how nature shapes our prairie ecosystem and use a dichotomous key to identify the diverse and beautiful prairie plants.
- 3. Undaunted Adaptations Living in Colorado means you must have some wicked adaptations to survive in our climate. Explore amazing adaptations in our Undaunted Garden and alpine Rock Garden.
- 4. Planting a tree for me Students will grow some native habitat by planting a tree seed to take home.

COLORADO

2nd Grade

Life Science:

2:1 Plants depend on water and light to grow and on animals for pollination or to move their seeds around.2:2 A range of different organisms lives in different places.

<u>Geography</u> 2: 2. People in communities manage, modify, and depend on their environment.

Oral Expression and Listening 1: 1. Engage in dialogue and learn new information through active listening. 1: 2. Deliver presentations while maintaining focus on topic and be prepared to discuss

Reading for All Purposes 2: 2. Apply specific skills to comprehend and fluently read informational texts.

STATE

3rd Grade

Life Science:

2:1 Organisms have unique and diverse life cycles.2:3 Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.

2:5 Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.

<u>Geography</u>

2:2. The concept of region is developed through an examination of similarities and differences in places and communities.

Oral Expression and Listening

1: 2. Communicate using appropriate language in informal and formal situations

Reading for All Purposes 2: 2. Apply strategies to fluently read and comprehend various informational texts

STANDARDS

4th Grade

Life Science:

2:1 Organisms have both internal and external structures that serve various functions. There is interaction and interdependence between and among living and nonliving components of systems

<u>History</u>

1:1. Analyze primary and secondary sources from multiple points of view to develop an understanding of the history of Colorado.

Oral Expression and Listening 1: 1. Pose thoughtful questions after actively listening to others. 1: 2. Create a plan to effectively present information both informally and formally.

Reading for All Purposes

2: 2. Apply strategies to comprehend and interpret informational texts.
2: 3. Apply knowledge of spelling patterns (orthography) and word meanings (morphology) to decode multisyllable words and determine the meaning of unknown words.



Soil to Snack Tour: 2-4 hours

Recommended for Grades: 4th-Middle School

Healthy eating is easier when you know where your food comes from. Come visit the Garden and harvest, prepare, eat and reflect upon how food affects us. During this tour students will prepare and eat their own snack, make garden tea, investigate food labels, learn how to grow their own vegetables and practice mindfulness on a reflective hike through the prairie and foothills.

Extension Option: skip the bus and coordinate a bike ride to the Gardens with Safe Routes email saferoutes@fcgov.com

Stations:

- 1. Eating the Rainbow: Spring roll preparation and eating (Vegan Major top 10 allergen free can accommodate others)
- 2. Flavors of the Garden: Harvesting herbs, making tea and practicing label reading in a hunt for sugar.
- 3. **The Power of Choice**: Mindfulness hike activity that encourages students to use the power of nature to reflect on the role food and exercise plays in their life.
- 4. **Growing our food:** Students tour our edible food garden measuring the diversity and plant vegetable seeds to take home with them.

COLORADO

4th Grade

Number and Quantity 4.NBT.B. Number & Operations in Base Ten: Use place value understanding and properties of operations to perform multi-digit arithmetic.

Physical and Personal Wellness

2:1 Demonstrate the ability to set a goal in order to enhance personal nutrition.2:2 Describe the connection between food intake and physical health.

Writing and Composition 3: 1. Write opinion pieces on topics or texts supporting a point of view with reasons and information. (CCSS: W.4.1)

STATE

5th Grade

<u>Physical Science:</u> <u>1:4</u> The energy released from food was once energy from the sun.

Number and Quantity 5.NBT.B. Number & Operations in Base Ten: Perform operations with multi-digit whole numbers and with decimals to hundredths.

Physical and Personal Wellness 2:1 Demonstrate the ability to make good decisions about healthy eating behaviors.

Social and Emotional Wellness 3:2 Work cooperatively and productively in a group.

<u>Writing and Composition</u> <u>3:</u> 1. Write opinion pieces on topics or texts, supporting a point of view with reasons and information, for a variety of purposes and audiences.

STANDARDS

Middle School

Life Science:

2:3 Sustaining life requires substantial energy and matter inputs.

Physical and Personal Wellness

6:2:1 Evaluate the validity and reliability of information, products, and services to enhance healthy eating behaviors.6:2:4 Analyze how positive health behaviors can benefit people throughout their lifespan.7:2:1 Analyze factors that influence healthy eating behaviors.

Social and Emotional Wellness 7:3:2 Develop healthy self-management skills to prevent and manage stress. 8:3:2 Analyze internal and external factors that influence mental and emotional health.

Movement Competence and Understanding 1:3 Participate in activities that require problem-solving, cooperation, and teambuilding.

Social and Emotional Wellness 3:2 Demonstrate responsible behavior in group settings.



Bountiful Butterflies Tour: 2 hours

Recommended for Grades K-2nd

Butterflies can teach us tremendous lessons. Come explore the Gardens and the Butterfly house to learn all about butterflies, how they grow, what they eat and plant a special butterfly plant to grow at home.

- 1. From egg to butterfly Students will embody the process of metamorphous through this imaginative station.
- 2. Butterflies come in all shapes and sizes Students will explore the diversity of butterflies learn how to identify native butterflies in our Butterfly House.
- 3. What is the big deal about pollinators? Students



- investigate the interdependence between pollinators and flowers through modeling and flower dissection.
- 4. Butterfly Stewards Students will get to make a difference for local butterflies by planting a butterfly plant to take home.

COLORADO

Kindergarten

Life Science:

2:1 To live and grow, animals obtain food they need from plants or other animals, and plants need water and light.

Earth and Space Science 3:2 Plants and animals meet their needs in their habitats and impact one another

Number and Quantity K.CC.B. Counting & Cardinality: Count to determine the number of objects.

Data Analysis, Statistics and probability K.MD.B. Measurement & Data: Classify objects and count the number of objects in each category.

Movement Competence and Understanding <u>1:1</u> Demonstrate body and spatial awareness through movement.

Social and Emotional Wellness <u>3:1</u> Demonstrate respect for self, others, and equipment. <u>3:2</u> Demonstrate the ability to follow directions.

STATE

1st Grade

Life Science:

2:1 All organisms have external parts that they use to perform daily functions.

2:2 Young organisms are very much, but not exactly, like their parents, and also resemble other organisms of the same kind.

Social and Emotional Wellness 3:1 Work independently and with others to complete work. 3:2 Follow the rules of an activity.

STANDARDS

2nd Grade

Life Science:

2:1 Plants depend on water and light to grow and on animals for pollination or to move their seeds around. 2:2 A range of different organisms lives in different places.

Civics 4: 1. Advocate for ideas to improve communities.

Taking Flight Tour: 2 hours

Recommended for Grades 3rd-5th

Become entomologists for the day and enter the world of lepidoptery, the study of butterflies and moths. During this program, students will investigate the inspiring and amazing world of butterflies through hands on science that applies the real work and data scientists are tackling in the field.

- 1. From egg to butterfly Students will explore the crazy process of metamorphous and visit our chrysalis chamber in the Butterfly House to see the process firsthand.
- 2. **Monarch migration** Students will map the paths of monarch migration through diverse cultures and practice tagging monarchs like scientists.
- 3. **Designed for success** Students will get hands on and up close looking at the internal and external adaptations that make butterflies extremely successful pollinators.



4. **Butterfly stewards-** Students will review the importance of butterflies for pollination and make a difference for local butterflies by planting a butterfly plant to take home.

COLORADO

STATE

3rd Grade

Life Science:

2:1 Organisms have unique and diverse life cycles.

2:3 Different organisms vary in how they look and function because they have different inherited information; the environment also affects the traits that an organism develops.

2:5 Sometimes differences in characteristics between individuals of the same species provide advantages in survival and reproduction.

Algebra and Functions

3.OA.A. Operations & Algebraic Thinking: Represent and solve problems involving multiplication and division.

Data Analysis, Statistics and probability

3.MD.A. Measurement & Data: Solve problems involving measurement and estimation of intervals of time

STANDARDS

4th Grade

Life Science:

2:1 Organisms have both internal and external structures that serve various functions.

Data Analysis, Statistics and probability 4.MD.A. Measurement & Data: Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.

Geography

2: 2. Connections are developed within and across human and physical systems.

Middle School and High School Programming:

The Gardens on Spring Creek is happy to work with you and your students to shape a unique experience that meets your learning goals. We work with all disciplines from art, community engagement to science.

We have offered programs that range from self-guided, to partnerships, to Garden led. Some past topics included:

- Botanical illustration: We provided a project, the teacher facilitated the learning, and the students came to draw at the Gardens.
- Community Gardening and Diversity: Students rotated through 4 stations addressing issues of diversity, community gardening and service.
- Botany: Teachers brought their students to explore botanical structures. Led by teacher.
- Native Plant Identification: we provided a brief introduction to the site and some extra field guides. The teachers provided instruction.
- Service Learning: We provided a brief tour of the site and the students worked on a group volunteer project.

Professional Learning Opportunities:

We are a partner on the Inspire PSD site and can offer job shadows, industry tours and internships.

Coming Soon....

Bee Empathetic Field Fridays

Middle and High School

A multi-disciplinary exploration of the science behind bees and pollination. This Middle and High School Field Science program is developed in partnership with CSU's College of Natural Sciences and Entomology Department. Our field Fridays are supported by kits that can be checked out for the classroom or explored onsite with garden educators at the Gardens on Spring Creek. Each student will take the perspective of an individual species of bee to explore the importance and process of pollination, develop models, collect and analyze data and engineer solutions to real world challenges while building their empathy for these unique creatures.

Available onsite - Fridays May through September only but available in your classroom year-round.

Limited to 30 students.