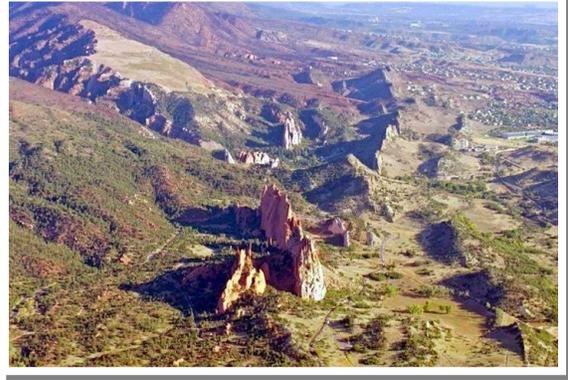


Garden of the Gods

City of Colorado Springs
Parks, Recreation & Cultural Services
P: (719) 219-0108
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Explore the Park

Welcome! We look forward to sharing the Garden of the Gods with you and your students. Here are a few things to bear in mind as you prepare for the field trip:

- Your field trip begins at the trailhead of the Perkins Central Garden Trail located at the **North Main Parking Lot** (lot #2) off Juniper Way Loop inside Garden of the Gods Park.
- Secure your transportation early. Getting a bus on short notice can be problematic.
- Plan ahead. Arriving on time maximizes the experience for your students.
- Check the weather forecast and dress appropriately! Docents can end a walk early if students are improperly dressed for the weather.
- Please, DO NOT PRE-GROUP your students. We will work with you to determine group size for the outdoor walk on the day of your field trip. Group size is based on docent availability. If you have students that must stay together for medical or disciplinary reasons we can easily adjust to your needs.
- Please, let us know in advance if you have any students with special needs (e.g. wheelchairs, crutches, medical conditions, etc.).
- Parent chaperones are welcome, but not required.
- Please, no pets or student siblings allowed.
- Students, chaperones and teachers are asked to silence cell phones during the field trip. Students should refrain from using any electronic device during their visit. Taking photos on the outdoor walk is acceptable provided it is not distracting.
- Payment is due the day of your trip. Cash, credit card, and checks accepted. Let us know at time of registration if paying with credit card to coordinate for payment. The cost is \$2 per student. No cost for adults, but donations are welcome. Please, make checks out to: *Garden of the Gods Visitor and Nature Center*

Explore the Park Program Description

We align with National STEM standards for grades K-6 Earth and Life Sciences and Colorado State Standards for Science: Physical, Life, and Earth Systems

Goals:

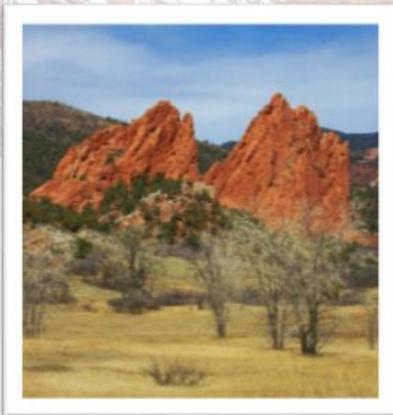
- Students recognize the exceptional natural and geological wonder of the Garden of the Gods.
- Students gain a broad understanding of and appreciation for the science of geology.
- Students identify the three rock layers experienced in the in the Park, their ages and composition.
- Students recognize how different ecosystems coexist within the Park, making the Garden a crossroads of plant and animal life.
- Students identify how the Garden's ecology has supported human habitation for the last 3,800 years.
- Students gain an understanding of the Garden's historical role in the Pike's Peak Region.

Schedule:

- Field trips run Tuesday thru Thursday beginning at 9:30 AM or 12:00 PM.
- Programs are available September 27, 2016 through May 11, 2017.
- We follow Colorado Springs District 11 schedule for Holiday and Spring Break closures. There are no programs offered in January and February.

Daily Agenda:

- Staff members will greet you at the North Main Parking Lot (Lot #2).
- Your class(es) will be divided into small groups by our staff. The number is determined by docent availability.
- Each small group is led by a staff member or volunteer docent through the Central Garden. Walks last approximately 60 minutes.
- If you need to depart earlier than the scheduled time, please let us know upon arrival and we can adjust our program accordingly.
- Average distance traveled in the Garden during this adventure is 1.5 miles.



Explore the Park Program Overview

This program is a full one-hour hike through the Central Garden. Students have the opportunity for a less structured, more in-depth outdoor experience covering ecology, geology and history of the Park at the appropriate grade level. The hike will proceed into areas of the Central Garden not explored in our other programs.

In advance of the field trip, students are asked to prepare at least one question about Garden of the Gods Park. Questions will be discussed by the group as a whole to formulate answers, using reasoning skills, creative thinking, and sensory input. Older students are encouraged to research the Park prior to their visit, bringing with them thoughts and questions for discussion.

Teacher Reference Guide

The Garden of the Gods is a crossroads of plants and animals from six different ecosystems. Many animals successfully live in multiple ecosystems. Below is a list of common species we discuss:

- **Prairie Grasslands**
 - Animals – Prairie Rattlesnake, Coyote, Striped Skunk, Mule Deer, Magpie, Red-Tailed Hawk, Honey Ants
 - Plants – Prickly-Pear Cactus, Yucca, Paintbrush
- **Wetlands**
 - Animals – Black Bear, Red Fox, Gray Fox, Magpie, Red-Winged Blackbird, Prairie Rattlesnake
 - Plants – Common Fireweed, Cottonwood Tree, Cattail
- **Mountain Shrublands**
 - Animals – Rocky Mountain Bighorn Sheep, Cottontail Rabbit, Bobcat, Prairie Falcon, Wild Turkey, Eastern Fence Lizard, Honeybee
 - Plants – Wild Rose, Mountain Mahogany, Piñon Pine, Three-Leaf Sumac, One-Seed Juniper
- **Piñon and Juniper Woodlands**
 - Animals – Mountain Lion, Mule Deer, Least Chipmunk, Spotted Towhee, Scrub Jay, Honey Ant
 - Plants – Prairie Coneflower, Pasque Flower, One-Seed Juniper, Gambel Oak, Piñon Pine
- **Cliff Islands**
 - Animals – Least Chipmunk, Rock Pigeon, White-Throated Swift, Violet-Green Swallow, Northern Goshawk
 - Plants – Yucca, Three-Leaf Sumac, One-Seed Juniper, Ponderosa Pine
- **Montane Forests**
 - Animals – Little Brown Bat, Pack Rat, Red-Tailed Hawk, Mule Deer, Mountain Lion, Prairie Falcon, Tiger Swallowtail Butterfly
 - Plants – Rocky Mountain Penstemon, Butterfly Weed, Ponderosa Pine, Chokecherry, Mountain Mahogany

Not only is the Park a crossroads of plants and animals, it has long been a gathering place for many different peoples. Archaeologists have evidence of human habitation in the Garden for the last 3,800 years. The Tabeguache Ute proclaim that they have always lived here amongst the rocks of the Garden. Their name means “People of Sun Mountain.” Sun Mountain (*tava*) is their name for Pike’s Peak. We know they made great use of the Park’s natural resources and climate. They wintered here, sheltered by the rocks and hunted deer, turkey and bison. They utilized the yucca, three-leaf sumac and piñon pine for food and tools.

The Garden of the Gods Park is composed of sedimentary rock layers. They are geologically remarkable due to their vertical and in some cases beyond vertical positions. This allows study of rock that in other areas has been buried by nearly a mile of sediment. Our program touches on the concept of rock formations. Students will explore two of these:

The Fountain Formation (320-300 million years old): Composed of sand, gravel, and mud that washed down from the Ancestral Rockies in alluvial fans. These sediments compacted and cemented into the conglomerates, sandstone, and mudstone (shale) of the Fountain Formation. This layer is over 4,500 feet thick. Formations in the western part of the Garden are made up of Fountain Formation: Balanced Rock, Siamese Twins, and Three Graces.

Lyons Formations (300-260 million years ago): The local climate changed and this part of Colorado became a windswept desert filled with sand dunes. The formation is composed of three layers, two of which are visible in the Park (Red Lyons and White Lyons). The red color is from iron becoming iron oxide (rust), which helps cement the grains together. The Lyons formations are the tallest rocks in the Park and include: North gateway Rock, South Gateway Rock, White Rock and Gray Rock.

There are other rock formations in the Park, including the Lykins and Morrison Formations, Dakota Sandstone, Niobrara Formation, and Pierre Shale. However, these exist in the eastern part of the park and will not be experienced during this field trip.

All the various sedimentary layers were gradually compacted and cemented into rock. Beginning about 70 million years ago these layers were broken and tilted upright. Erosion has exposed the ridges and carved out the valleys to what we see today.

Fossil evidence of dinosaurs and ancient marine animals has been found in the Park. The skull of a dinosaur named *Theiophytalia kerri*, a type of iguanodon, was found in the Garden of the Gods in 1878 by Colorado College Professor, James Kerr. The fossil dates to the early Cretaceous period and is the only evidence this species found anywhere in the world

Supplementary Activity Ideas:

1. Have students do artwork, creative writing, or journaling based on something that impressed them about their experience at the Park.
2. Write a thank-you letter to the docent who led their guided walk.¹



¹ Send letters to Garden of the Gods Visitor and Nature Center
Attn: Bowen Gillings
1805 North 30th Street
Colorado Springs, CO 80904