National Park Service
Rock Creek Park Environmental Education

FLOWER POWER

Spring is a time of rebirth in the forest and meadow after the long, cold, winter. April showers bring the first hint of green on the trees and beautiful wildflowers on the forest floor. The heavy smells and vibrant colors of the flowers are intoxicating to insects flocking to sip their sweet nectar. While sipping, these insects accidentally pollinate the flowers, ensuring a new generation of flowers to be born the following spring.

TOPICS: Flowers, The lifecycle of a plant, Pollination, Insects (honeybees and butterflies)

BACKGROUND INFORMATION:
From the wilted dandelions presented by a young child to its mother, to the glorious bouquet of red roses given to someone special, flowers have long been considered as one of nature's most perfect gifts. It's hard to believe, when looking at the pink- white blossoms of a cherry tree or smelling the heavy sweetness of Easter Lilies, that these beautiful flowers exist for one purpose only, to create new seeds. How they are shaped, their color, size, and smell all contribute to success in this very important mission.

Where: Rock Creek Park Nature Center

Length: 1 hour

Who: 1st- 3rd grade classes

Students per group: maximum of 30

Chaperones per group: 5- 7

CURRICULUM BASE:
GRADES 1- 3- Observe and describe how the structures of living things are adapted to the functions they perform.
GRADES 1- 3- Examine several simple systems and identify the parts of the system and their purpose.
GRADE 1- Relate legs, wings, eyes, etc. … to the functions needed to survive.
GRADE 1- Observe and describe life cycles of selected organisms.
GRADE 2- Recognize that all living things change and describe the life cycle stages.
GRADE 2- Describe the varied needs of living things (food, water, light, space).
GRADE 2- Investigate and describe the life cycle of a butterfly.
GRADE 2- Relate observations of the butterfly's life cycle to that of the student's own growth and development.
GRADE 2- Examine and identify the components of the life cycle of an organism (butterfly) as a system.
GRADE 3- Study the life cycle of plants and their interdependence of living organisms.
GRADE 3- Compare plant and animal life cycles to major stages of human life cycle.

OBJECTIVES: By the end of the program, students will be able to;

1. Identify the parts of a flower.
2. Observe a variety of flowers in the area and to notice differences among them.
3. Act out the life cycle of a plant.
4. Name at least two needs of plants and animals.
5. Act out the life cycle of a bee or butterfly.
6. Describe pollination.

SAFETY MESSAGE: Avoid Poison Ivy and please stay on the trail.

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PRE AND POST-TRIP ACTIVITIES

Pre-trip activities: Prior to your visit to Rock Creek Park, please take a moment to read this pre-site. We suggest that you do one or more of the described activities with your class.

1) Dissect a flower. Bring in some daffodils, tulips, or gladiolas, one flower per group with a hand lens. Have the class open up, examine, and try to identify the various parts and talk about their functions. (Cut the flower in half, lengthwise, and look for eggs/seeds in the ovary).

2) Have the class make up their own "Pollination Puppet Show" to explain the basic method of pollination. (Hints for characters: flower, pollen, egg in pistil, bee…) They may perform for other classes or for the rangers at the Nature Center.

3) Make a flower. Briefly review what parts a flower needs to make seeds. Each child should make a flower and, depending on age level, explain each part and its use. The flower can be made as 1) a picture, 2) a paper flower, or 3) a three-dimensional flower.

Post-trip activities:

1) Adopt a flower. Ask each child to adopt a flower and look at it daily (it may be at home or in the school flower garden), recording changes in size, color, and shape of the flower head. Watch how the seeds form and note how long it takes until the seeds are ready to disperse.

2) Have each child choose and identify one flower using a wildflower guide, then draw and color the flower.

3) Make flower presses with the students.

✓ 5 squares of corrugated cardboard (all the same size, 5-6 in. square) per child
✓ 2-4 rubber bands per child (get children to save from the newspaper)
✓ Magazines for cutting (garden ones are good to decorate one side of each of two cardboard squares which form the outside of their plant press)
✓ Crayons/markers
✓ Glue & scissors
- Put all the cardboard squares together. To press flowers or leaves, line the cardboard with tissue, paper towels, etc. Place plant materials in between, and use the rubber bands to "smoosh" the plant materials. Leave them there until they dry.
  * **Emphasize that they are NOT allowed to collect anything in National Parks like Rock Creek Park.**