



## INVESTIGATING THE POLLINATION CYCLE

### Busy Bees

Fruit trees must be pollinated to produce fruit. Pollen grains are transferred from the male flower part to the female flower part by wind, water, birds, bees and other insects. Bees are attracted to the nectar and pollen of fragrant flowers. The bee stops at a flower to suck the nectar, and the pollen grains get stuck to the bee's body. When the bee moves to another flower, the pollen grains are transferred to the second flower. More than 80 percent of crop pollination is accomplished by bees.



1. Write the following journal prompt on the board: "Do you think bees are helpful or harmful? Describe." After students brainstorm and write their answers down, ask them to share with the class.

2. Distribute green paper plates and craft supplies. Instruct students to illustrate and narrate the pollination cycle of bees on the paper plates. Use yellow pom-poms to depict the bee. Each quadrant of the plate should explain a different step of the pollination cycle:

- a. The bee is looking for food.
- b. The bee lands on the flower and sips the nectar. Pollen gets stuck on its body.
- c. The bee flies away, looking for more food.
- d. The bee lands on a new flower with pollen from the last flower. The pollen is transferred.

3. Use brown construction paper to create a tree trunk. Attach to the bottom of the plate with tape.

4. Ask each student to explain the pollination story to a partner using their completed visual aid.

### Materials:

- Green paper plates
- Circle template, divided into quadrants
- Brown construction paper
- Crayons, colored pencils or markers
- Tape
- Yellow pom-poms

### Vocabulary:

**Nectar:** a sweet liquid reward for pollinators that is produced by flower glands called nectaries.

**Pistil:** the female part of the flower including the stigma, style and ovary.

**Pollen:** the fine, powder-like material produced by the anthers of flowering plants; a nutritious, protein-rich food for bees.

**Pollen basket:** a smooth, slightly concave surface of the outer hind leg of a bee that is fringed with long, curved hairs that hold the pollen.

**Stamen:** the male part of the flower consisting of the anther and filament.

### Objective:

Students will identify each step of the pollination cycle and appreciate the importance of bees in agriculture production.

### California State Board of Education Content Standards

**Grade 1:** Science: 2a, 2b  
ELA: Listening and speaking 1.0

**Grade 2:** Science: 2f, 3e  
ELA: Listening and speaking 1.0

**Grade 3:** Science: 3a  
ELA: Listening and speaking 1.0

This lesson can be easily adapted to meet the educational standards for a variety of grade levels.

This lesson has been adapted from Virginia Agriculture in the Classroom curriculum. For additional educational resources, visit [www.agintheclass.org](http://www.agintheclass.org).