Plant Pollination
3rd & 4th Grade

Students examine flower anatomy and identify the characteristics of a flower that make it attractive to a pollinator. They will discuss what animals are responsible for pollination. Students will play a pollination game to reinforce the concept of cross-pollination.

30 min

Lesson Objectives:
- Students are able to identify flower anatomy
- Students describe cross-pollination
- Students name 3 pollinators
- Students describe how pollination affects the farm and food supply

What You Need

- 6 buckets
- 4 spoons or pipettes
- Many stickers of 4 colors
- 4 cups
- Illustration of flower parts
- Paper
- Colored pencils

Background Information
Pollination happens most often when birds and insects are attracted to the nectar of a plant. The sticky pollen clings to their bodies when they visit a plant and is carried from one plant to another as the pollinator goes in search of more nectar. Flowers only produce a small amount of nectar so that insects and other animals have to go to multiple flowers to collect enough nectar to survive. This allows for the pollen from a flower to be brought to another flower allowing for fertilization and the growing of seeds. Honeybees collect more pollen than any other insect.

Flowers have adapted to attract pollinators by having different size, shape, color, order, and amount of nectar. Butterflies are often attracted to the bright colors of flowers. Insects may also have special adaptations for collecting nectar. Bees have long tongues for going after nectar deep inside a flower. Humming birds have long beaks for collecting nectar. Bats are also very important pollinators for saguaro cactus in Arizona, where each flower only blooms for one night.

What To Do
Ask students to talk to the person next to them about how plants are pollinated. Have them create a simple drawing of the flower parts involved in pollination. Students will collect a flower each and bring it back to identify the parts. Students will make a drawing of their flower and will identify the main parts. Discuss with students what
makes a flower attractive to a pollinator. Explain how both pollinators and flowers have adapted for cross-pollination. Students will make a second drawing of their flower and write a sentence about why it is attractive to a pollinator. If you are short on time you can skip the drawing and writing and simply have students describe to the group what makes the flower attractive to a pollinator. You may also want to work in an area near flowers, rather than having students pick a flower to do this activity, they can find one and draw from it in place.

**Pollination Game**

Students will play a pollination game where they collect nectar (water) from flowers and pick up pollen (stickers) from the flowers and bring them to another flower. There are four flower stations that will each have one person who is the flower. This person can be a parent or student, they will hand a sticker (pollen) to the student (pollinator) who visits the flower. At the station there will also be a bucket of water with a spoon or pipette. There will be 2 teams. One member of each team will run from home to at least 3 flowers with a cup for collecting nectar. At each flower the student will gather one spoonful of nectar (water) in their cup, they will also collect some pollen (a sticker). When the pollinator student flies to the next flower they will place the sticker on the flower person, and get more water and a different color sticker. This continues until the student has visited three different flowers.

The team member will bring the nectar back home to put in their collecting container and hand off the cup and extra pollen to the next person. The team to collect the most nectar wins.

Wrap up by asking the students what the different colored stickers on each flower show? Also ask students why they think insects have to go to multiple flowers to get enough nectar. Explain to students how this is beneficial in cross-pollination.