## Growing Classroom Flower Power 2 - Pollinator Game

INTERDEPENDENCE AND GARDEN ECOLOGY

INDOORS & GRADES 4-6 & SPRING & ACTIVITY



# Flower Power, Part Two

DESCRIPTION

Students role-play flowers and pollinators, and find their perfect match.

OBJECTIVE

To learn about pollinators and their relationship to flowers.

TEACHER BACKGROUND Flowering plants have evolved various methods of pollination. Some flowers are wind pollinated and have very light pollen grains that are blown from plant to plant. Flowers attract many pollinators in different ways. Insect-pollinated plants often produce nectar or pollen that insects collect

for food. As an insect enters the flower to get food, it is dusted with pollen. When the insect enters the next flower, some of the pollen brushes off onto the stigma. Other flowers use specific odors or colors to attract pollinators. By impersonating flowers and pollinators, students learn that there are a great variety of pollinators and that each has a special relationship to a certain kind of flower.

MATERIALS

& Pollinator Cards from appendix, pages 390-391

CLASS DISCUSSION Unlike animals, plants can't move from place to place to find their mates. How then does the pollen from one flower get to the pistil of another flower? That's where pollinators come in. A pollinator is anything that helps spread pollen. There are all kinds of pollinators: birds, bats, bees, bugs, and more! Even the wind is an important pollinator. Pollinators may drink nectar from the flowers, and some, such as honeybees, collect and eat the pollen, too. In the process, they spread pollen from flower to flower without even trying. Once the pollen fertilizes the egg in the flower ovary, the plant will go on to produce fruit and seeds. So we have pollinators to thank for most of our fruits and nuts and many of our vegetables, too. Scientists estimate that one out of three things we eat is thanks to pollination by bees.

Have you hugged a flower today?





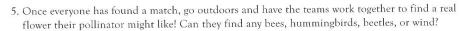
#### ACTION

1. Write the following list on the board:

Type of Flower Preferred Pollinator Small white or light green flowers that hang down near Beetle the ground and have very little scent Flowers with sweet smells and showy, bright petals, Honeybee often blue or yellow Reddish flowers that smell like rotten meat Fly Butterfly Bright-colored, sweet-smelling flowers Large sweet-smelling, white flowers that bloom at night Bat Bright red or yellow flowers with long tubelike shape Hummingbird and very little scent White or yellow flowers with sweet smell Moth Small, odorless flowers with pollen that can get picked up Wind and water in the wind or float on water

Grasses, corn, and so on tend to be wind pollinated. Since they rely on the wind, they don't have to produce showy or scented flowers to attract pollinators.

- 2. Divide the class into two groups. One group will be Pollinators, the other Flowers.
- 3. Hand each student or pair of students one card.
- 4. Then have the two groups mingle, with pollinators looking for flowers they would like to pollinate and flowers looking for pollinators to carry their pollen to other flowers. Remind the class that there can be more than one pollinator to a flower because different pollinators may like the same type.



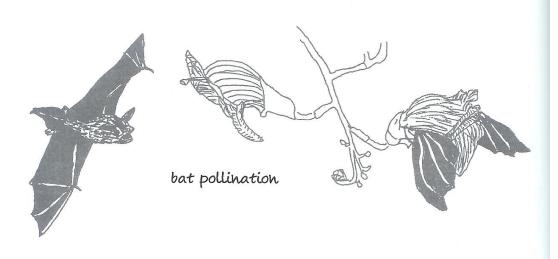


### WRAP UP

When you look at insects near flowers now, what will you try to observe? Most scientists believe that flowers and their pollinators coevolved. That means that they changed over time to suit one another; they adapted to one another. How does this coevolution benefit the flower? How does it benefit the pollinator? During this activity you learned that often several pollinators like the same flower. For example, bees and butterflies often visit the same type of flower. How would more than one pollinator be an advantage for the flower?

#### DIGGING DEEPER

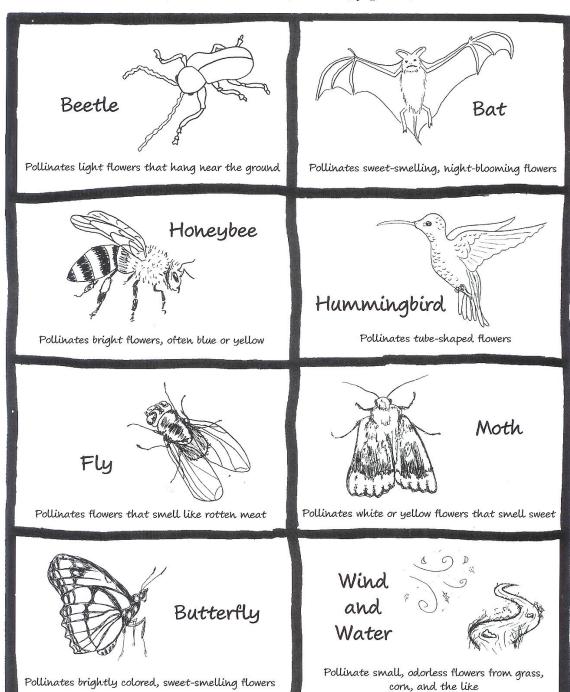
Go outdoors with students and sit quietly near some flowers. Watch carefully. What pollinators do you observe? How long does a pollinator stay on each flower?

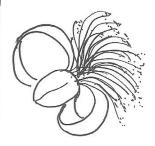


232

# ₱ Pollinator Cards

(From: Flower Power, Part Two, page 230)



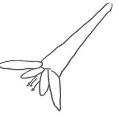


large, sweet-smelling, white flowers that bloom at night Small white or light green flowers that hang down



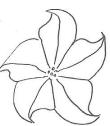
near the ground and have very little scent

Bright red or yellow flowers with long tubelike shape and very little scent

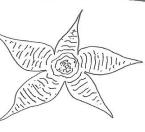


Flowers with sweet smells and showy, bright petals, often blue or yellow

White or yellow flowers with sweet smell

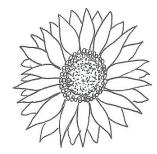


Reddish flowers that smell like rotten meat





Small, odorless flowers with pollen that can get picked up in the wind or float on water



Brightcolored, sweetsmelling flowers