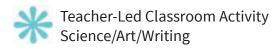
Activity 1

Pollination Demonstration



How does pollen travel from flower to flower?

Objective:

Students make and use paper flowers and other supplies to dramatize the process of pollination.

Students will need:

- Tissue paper (various colors), cut into 8"x8" squares (3-5 sheets per student)
- Twist ties
- Empty water bottles or tall plastic cups (at least one per student)
- Chalk dust
- Small beads (such as seed beads)

Suggested time:

One class period

What to do:

- 1. Ask students to tell you what they know about pollination. Together, make a list of animals that pollinate plants. Summarize the discussion by describing how bees, butterflies, moths, hummingbirds, bats, and other animals carry pollen from flower to flower. Tell students they will be making flowers that will be used in a pollination activity.
- 2. Provide students with 8"x8" sheets of tissue paper—about 3-5 sheets per student. To make a flower, students should stack their paper neatly then pinch the stack in the center and twist to hold the sheets together. Secure the bottom with a twist tie, then fluff up the sides to form a flower shape.
- 3. Have students place their flowers in the containers. Drop a few beads into the center of each flower. Place half of the containers in a "flower patch" on one side of the room and half in a patch on the other side of the room. Then dust the flowers in one of the patches with chalk dust.
- 4. Each student then takes a turn visiting a flower in the chalk-dusted group and using his or her thumb and pointer finger to burrow inside a flower and extract a bead (which represents nectar). Ask students to notice what happens: Their fingers pick up chalk dust as they reach for the beads. Students then proceed to the patch that wasn't dusted to extract a bead from a flower there. What happens? Does any dust (pollen) stick to the undusted flowers?
- 5. Afterward, have students write about the demonstration in their science journals.







Activity 1

Make a Pot, Plant Seeds, Grow Bird Food! (continued)

What to do:

- 1. Let students watch you make a newspaper pot. Explain the process as you go. (Note: As an extra step to make the pot hold together, use a piece of masking tape to secure the folds on the bottom.)
- 2. Now have students make their own pots following your model. Give them help as needed, but challenge them to problem-solve along the way as much as possible.
- 3. Have each student fill her/his pot(s) with potting soil, carefully packing it down without damaging the newspaper pot.
- 4. Give each student one sunflower seed for each pot. (Ideally, each student will have at least two pots, since there's no guarantee that every seed will sprout.) Demonstrate how to create a hole about 1 inch deep in the soil, place a seed in the hole, and then firm the soil on top.
- 5. Have students write their names and the planting date on craft sticks and gently place a stick in each of their pots.
- 6. Place the pots in a waterproof tray or pan and spray them gently with water so the soil is wet throughout but not soggy. Place the pan or tray in a sunny window away from cold drafts.
- 7. Make it a regular part of class to check the pots daily. They should be kept evenly moist, but not soggy. Students should record the date seedlings emerge (usually 10 days to 2 weeks after planting) and measure growth over time.
- 8. When the seedlings are 4-5 inches tall, they are ready to be transplanted—newspaper pots and all—to the ground or larger containers.
- 9. Distribute copies of the reproducible, "Growing Sunflowers for Birds," one for each student. Review the information and instructions with students, making sure they understand everything.
- 10. To send the seedlings home with students, place each one in a small, flat-bottom paper bag and carefully fold down the top. Explain to students that they need to handle the bag carefully and keep the plant upright until they get it home.
- 11. In succeeding days (until the end of the school year), invite students to report on the progress of their sunflower plants and share photographs if they have them. Encourage them to keep a record of the plants' growth over the summer with photographs, sketches, and notes in a journal.