

SCIENCE FESTIVAL FACILITATOR'S GUIDE



Busy as a Bee

Note: This experiment is particularly applicable to grades K-2

1. Make sure you have the materials you need.

- Brown paper lunch bags (one per adult-student pair)
- Cheese puff snacks
- Coffee filters (one per adult-student pair)
- Green pipe cleaners (one per adult-student pair)
- Stapler
- Scissors

2. Quick “insider info” about this experiment:

- This experiment will help students visualize how a bee transports pollen from one flower to the next.

3. Prepare your station.

- Distribute lunch bags, coffee filters, pipe cleaners, stapler and scissors around the table.
- Have bags of cheese puffs on hand to pour into brown paper bags, when families are ready. (You can also pre-pour servings into small plastic cups, if you have them.)

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Questions to ask participants before they start:

- We know that bees can sting people but do you know why bees are so important to humans?
- How do they help plants grow?

Instructions:

Please read each set of instructions out loud. Make sure that you direct the correct person to complete each assigned task.

- **Adult:** Take the pipe cleaner and cut off a two or three-inch piece. Set the short piece to the side.
- **Student:** Push the longer piece of pipe cleaner through the center of the coffee filter. Roll about an inch of the pipe cleaner into a ball so the coffee filter won't fall off. Scrunch the coffee filter around the end of the pipe cleaner.
- **Adult:** Wrap the short piece of pipe cleaner around the scrunched-up coffee filter/pipe cleaner to hold them together. Take the brown paper bag and cut it down to about half of its size. Using the stapler, attach the coffee filter "flower" to the outside of the brown paper bag.
- **Volunteer:** Place a handful of cheese puff snacks inside the brown paper bag.
- **Student:** Pretending that your hand is a "bee," touch the cheese puffs in the bag so that some of the "pollen" is on your fingers. Now fly your "bee" to the flower on your bag and have it land (touch the flower with your hand). Congratulations! Your "bee" just pollinated the flower.
- **Together:** Enjoy your snack!

How It Works:

Pollen is a part of flowering plants that resembles a fine, yellow, powdery dust. The transfer of pollen between flowers is needed for plants to grow.

Vocabulary:

Pollinator: An animal or insect (such as a bee), that helps fertilize plants by transferring pollen from one flower to another.

Real-World Application:

Worldwide, roughly 1,000 different types of plants are grown for food, spices, fibers and medicines. Every plant needs to be pollinated to grow. We depend on bees (as well as birds, bats, butterflies, moths and wind) for this to happen.

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