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## Pollinator Preferences

This is an experiment to find out if insects have favorite fragrances. You will use artificial flowers with different scents to see what smells have the best chance of attracting an insect and achieving pollination.

### Materials

- White paper plates
- White or clear paper condiment cups
- Tape
- White cotton balls
- 3-5 scents (or as many as you like). These may include perfume, food flavorings, essential oils, crushed spices, scented sprays, household chemicals, or anything you would like to test.



### Procedure

1. Make the flowers: Cut the paper plates into a regular flower shape. Make one for every scent you will test plus one for no scent—this is your “control” so you will be sure it’s the scent and not just the flower shape attracting the bugs. Place a condiment cup in the center of the paper plate and secure it with a loop of tape.
2. Select scents you would like to test. Put the scent on a cotton ball (this may be drops, spray, or crushed pieces of spices) and place it in one of the condiment cups. Put an unscented cotton ball in the one of the flowers. Try to keep the white side up so that all the flowers look the same.
3. Make a prediction: Which scent do you think will attract an insect and why do you think so?
4. Put the paper flowers around a yard, a lawn, or an area of asphalt, and watch to see which flower is the first to have any kind of insect go inside the condiment cup. Watch and record your results.
5. Re-test. This time, place the flowers in a different arrangement on the ground. Do the test several times to see if you get the same results each time.



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## Results and Conclusion

This is a fair test. Everything about the flowers was the same—same materials, same color flowers, same time of day, and similar locations. Everything was the same except the scent of the flowers. Therefore you can conclude that the scent is what attracted the insect and could be a potential pollinator in your neighborhood.

Think about your results.

What scent was the first to attract an insect?

What scent attracted the most insects?

What new questions do you have?

You can use this basic procedure to answer other questions about pollinators. Here are some examples of testable questions:

Do bees have a favorite scent?

Does the height of the flower off the ground make a difference in how many insects visit?

Do more insects visit if the flower is on the lawn or on pavement?

Remember, only test for one thing, such as flower location, petal color, or flower size. Keep everything else the same.

Hint: Scent is a pretty big factor in attracting insects, so if you discover that insects prefer one scent, use that scent on your flowers as you test different locations, colors, sizes, or whatever you want to test. There are lots of possibilities, so have fun!