Stop and smell the flowers! Then take a closer look at what parts make up a flower. Find out where their delightful smell comes from, what bees are buzzing around for, and how a flower can make more plants and sometimes become a fruit!

MATERIALS

- A flower
- Science notebook or paper
- Something to write with
- Optional: colored pencils, watercolors, crayons, or other colorful art supplies
- Optional: a pair of scissors

PROCEDURE

- First, observe your flower. What do you notice about it? Write down your observations. Draw your flower in your science notebook, using lots of colors if you want. Try drawing it from different angles.
- Now let’s take a closer look at each part! First, we’ll look at the stem.
  - What do you notice about your flower’s stem? Cut off the end of it and look at the inside. Is it hollow or solid? Does it smell like anything? Is it wet inside? Dry? Sticky?
  - What does the stem do for your flower?
- Now see if you can find sepals. These are the little green leaf-like parts that would be under the petals and attached to the stem.
  - How many do you count? Are they the same shape as the petals or different? Why do you think they may be there?
  - Carefully peel them off. Do you notice anything else about them? Do they smell like anything?
- Next, look at the petals. These are usually very brightly colored.
  - Why do you think that might be? Carefully peel the petals off of your flower. Write down how many petals are on your flower.
  - Do all the petals look the same? What do they feel like? Do they smell like anything?

Experiment continued on next page...
FLOWER DISSECTION

CURIOSITY AT HOME

PROCEDURE continued...

• Now we’ll find the pistil and stamens. You will usually find one pistil in the center, surrounded by multiple, shorter stamens. Not every flower will be arranged this way, and not every flower has both pistil and stamens. At the top of each stamen is an anther, a round-ish part covered with pollen when mature. Carefully pick each pistil and stamen at the base of its stalk and make observations.
  - How many stamens are there? Does your pistil have sections to it? How many? Does either part smell like anything? What do you think these parts are for?
• Next take a closer look at the pistil. It has three different parts called the ovary, style, and stigma. The stigma is at the top of the pistil, the ovary is at the bottom, and the style is the stalk that connects them. Cut the style in half and look at the inside.
  - Is it hollow or solid? Are there parts that look different on the inside? Is it wet or dry?
• If you can, cut the pistil in half lengthwise, from the top to the bottom instead of one side to the other. What do you see inside?
• Draw each part separately in your notebook, and label the parts you just learned! You can also tape your flower directly into your notebook.

TRY THIS
Find more, different kinds of flowers to dissect using the same process. What was the same between each flower? What was different?

Make a magnifying glass to get a closer look at your flower! Find something circular about 2 inches across, and an empty plastic bottle. Trace the circle over the rounded area at the top of the bottle, and carefully cut it out. You should have a shape like a small, shallow bowl. Fill it with a small amount of water, and look through it! What can you see that you couldn’t see with your bare eyes?

Experiment continued on next page...
DID YOU KNOW
Each part of the flower is important! The stem brings water and nutrients to the flower from the roots and leaves of the plant. This is how the flower has the energy to make each different part, to open, and to grow seeds! The sepals are the part of the plant that held the flower before it bloomed, when it was just a little beginning of a bud. The flower’s colorful petals help to attract bees and other pollinators, like butterflies and sometimes regular flies! They also make oils that give the flowers their smell, which also helps to attract pollinators. The stamens make the pollen, which is important to the flower’s reproduction, that is how it makes fruit and more seeds to make more of the kind of plant the flower comes from. More specifically, the anther at the top of the stamen produces the pollen. The pistil collects the pollen with the help of a pollinator. It goes in at the stigma, travels through the style, and ends up in the ovary. Once there, the pollen combines with an ovule, and together they grow into a seed.

The ovary of a flower can sometime grow much larger after it has been pollinated and become a fruit. The fruit protects the seed, and sometimes provides water and nutrients for the seed after it lands on the ground and starts to grow. Other times, however, the fruit is there to attract animals that eat the fruit and seed. The animal will then walk somewhere else and poop out the seed, spreading the plant far and also providing fertilizer for the seed to grow in.
3–5 GRADE EXPLORATION

Explore the following questions and write your observations in your science notebook.

- How many petals would you guess are normally on a flower? How many petals did you count on your flower? Look up pictures of different kinds of flowers, or go outside and find different flowers, and count how many petals each had. Make a table with the number of petals on different kinds of flowers. What number do you notice most frequently?

- If you were a bee, what kind of flower would you want to find while you’re flying around? Design your own flower! Make it as wacky as you want, but don’t forget to give it each of the different flower parts. Draw close-ups of the pistil and stamen. What shape are they? How many are there? How many petals are there? Does it grow into any kind of fruit after it’s been pollinated?

- Look up time-lapse videos of flowers blooming or fruit growing, such as dahlias, blackberry and pear. What do you notice? What part of the flower emerges first? What part of the fruit grows first? What part of the flower does the fruit seem to be growing from?