

## **Explain: She Loves Me, She Loves Me Not**

### **THE ACTIVITY**

1. Your instructor will put a labeled diagram of a flower up in the front of the room. Copy this diagram into your notebook. Be sure to include the following labels: pistil, stamen, stigma, anther, petal, sepal, stem.
2. Exam your flower closely before you begin dissecting it. See if you and your partner can identify as many of the structures labeled in the diagram as possible.
3. Look at the leaves on your flower. Is your flower a monocot or dicot? (Check the vein pattern.) Count how many petals your flower has. This is another clue as to whether a plant is a monocot or dicot. List in your notebook (on the diagram of the flower you labeled in step 1) the types of veins in the leaves and the number of petals on your flower and whether you think your flower is a monocot or dicot.
4. Start your dissection by pulling the petals off of the flower to give you better access to the reproductive portions of the flower. Be careful not to pull off all the stamens while you remove the petals. Often you only need to remove about the petals from one side of the flower.
5. Remove the rest of the petals and the stamens. Using scissors, your fingernail, or a scalpel/razor blade, split the base of the pistil in half. Draw a closeup view of the pistil of your flower near your diagram from step 1. Be sure to include any structures you see inside the pistil.

### **FOLLOW UP QUESTIONS**

**Answer the following questions in your notebook using complete sentences.**

1. Which organ in the plant produces pollen?
2. Name two ways flowers might keep from self-pollinating.
3. What is the male portion of the flower called?
4. Pollen lands on this structure of the flower to start the fertilization process.
5. What is the female portion of the flower called?
6. Name two ways pollination might occur?
7. What colorful structure on a plant is used to attract pollinators?
8. Name three ways plants disperse their seeds.