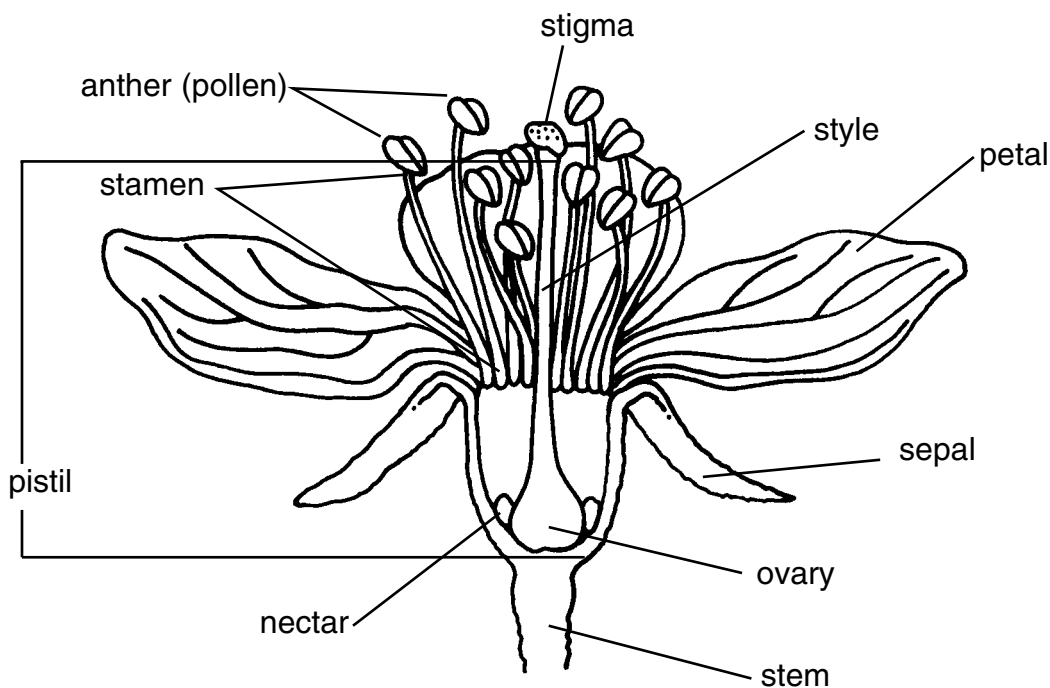


Flower Power *(cont.)*

Flower Dissection Instructions

To the Student: Follow directions as you carefully dissect the flower.

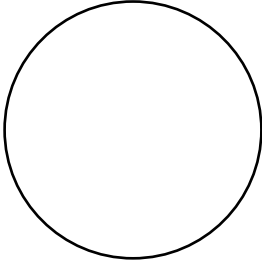
- Snip off a piece of the stem. Examine it with the magnifier and then tape it in the box marked “stem” on the Parts-of-a-Flower Data Sheet. Complete the rest of the information in the box.
- Locate the *sepals*, *petals*, *stamens*, and *pistil*. Count their number and write this in the boxes.
- Gently pull off the sepals and tape a specimen in the sepal box. Describe how it feels.
- Smell the flower; if it has a fragrance, describe it in the petal box. Carefully remove the petals and tape one to the data sheet. Answer the question about the flower’s color and fragrance.
- Examine a stamen, the male part of the flower. Look at the top of the stamen (*anther*) with a magnifier to see the pollen grains. Put your fingertip against the anther. Did the pollen stick to your finger? This is what happens when a bee touches it. Rub the pollen between your fingers and then describe what it feels like in the pollen box.
- Take a sample of pollen grains using the sticky side of a piece of clear tape. If you have a microscope, place the tape on a glass slide and examine it. Put a sample of pollen grains in the pollen box. Draw what the pollen grains look like when magnified.
- Remove the stamens and tape one of them in the box. Describe what you see on the anther and draw a magnified view of it.
- Study the pistil, the female part of the flower. Feel the stigma, the top of the pistil. Describe how it feels. At the bottom of the pistil is a swollen area (*ovary*). Try to cut it open with your fingernail. Use your magnifier to see if you can find any tiny seeds inside the ovary. You may be able to split the stem of the stigma (*style*) lengthwise to see if you can locate the pollen tube which has grown from the stigma to the ovary.



Flower Power *(cont.)*

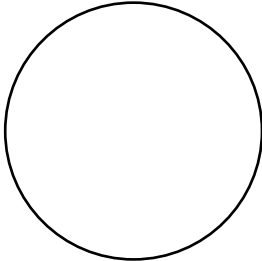
Parts-of-a-Flower Data Sheet

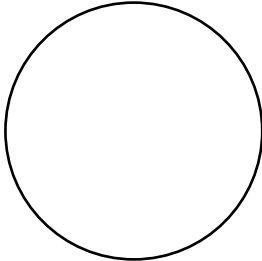
To the Student: Tape the parts of the flower in the correct boxes below and then complete the information.

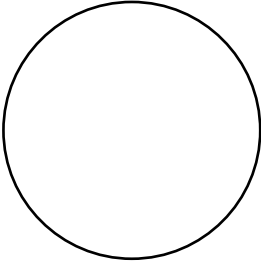
Stem
Description:

Magnified View of the Tip of the Stem

Sepal
Number of sepals:
Description of how it feels:

Petal
Describe fragrance:
Number of petals:
Why do flowers have colored petals and sometimes have a fragrance?

Pollen
Describe how it feels:

Magnified View of Pollen Grains

Stamen
Number of stamens:
Describe what you saw on the anther:

Magnified View of Anther

Pistil
Number of pistils:
Describe how the stigma feels:

Magnified View Inside the Ovary

Flower Power *(cont.)*

How Flowers Reproduce

1. Each pollen grain is a single cell. Pollen forms on the top (anther) of the stamen.
2. Pollen is carried by insects, wind, or birds to the stigma, the sticky top of the pistil.
3. Once on the stigma, the pollen grain absorbs moisture from the pistil and breaks open.
4. Its contents form a pollen tube, growing down into the pistil.
5. The pollen tube grows until it reaches the ovule containing an egg cell.
6. Sperm from the pollen travels down the tube to the ovule and unites with the egg cell.
7. A seed now begins to develop inside the ovary.
8. An ovary may have a single seed (avocado) or more than one seed (apple).
9. The ovary develops into a fruit enclosing the seed(s).

