

# Parts of a Flower Lab

Name: \_\_\_\_\_

Word List: petal sepal stamen anther stigma ovary  
pistil



## Part One: Procedure

1. Observe your flower specimen. Use a magnifying glass to see greater details of flower part structures. Write three detailed descriptive sentences of your particular flower.

a) \_\_\_\_\_

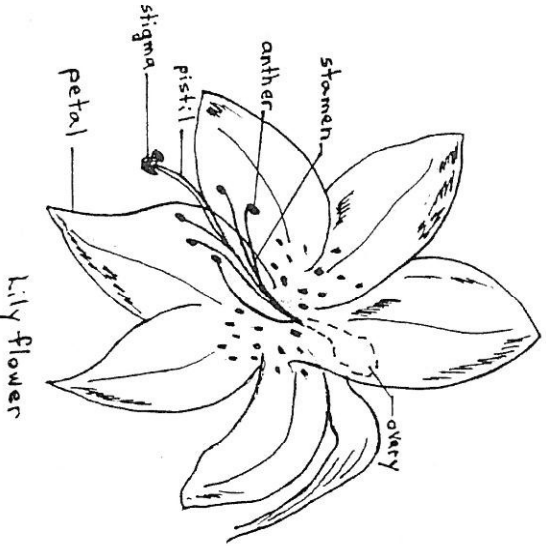
b) \_\_\_\_\_

c) \_\_\_\_\_

2. The diagram shown to the right is a typical flower.

Your flower may be slightly different, but will have the same types of flower parts.

- A) Using your forceps, carefully take the flower apart and set them on a sheet of paper towel.
- B) Use the diagram to identify each part.
- C) Draw your own diagram of each part in the spaces provided on your worksheet. Use your magnifying glass or dissecting microscope to see and draw greater detail.
- D) Label your drawings and answer the questions.



## Lab Dissection Diagrams:

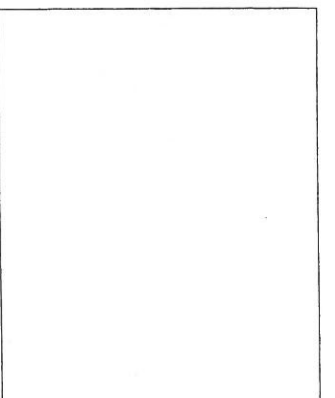
### Petals and Sepals

a) How many colored petals are present? \_\_\_\_\_

b) What advantage to the flower are colored petals? \_\_\_\_\_

c) How many green leaves surround the bottom of the flower? \_\_\_\_\_

d) What is their function? \_\_\_\_\_



Petal diagram

### Stamen and Anther

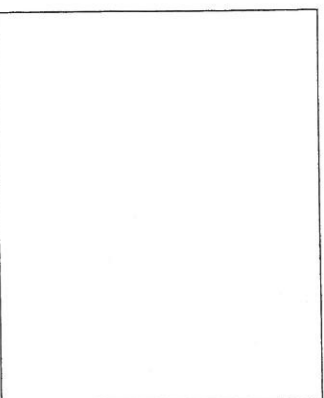
Remove enough petals from the flower so that you can observe the inner parts. Do you see a large stalk like part in the center of the flower? This part is called the pistil. Surrounding the pistil are several upright stalks.

#### Questions:

a) What are these called? \_\_\_\_\_

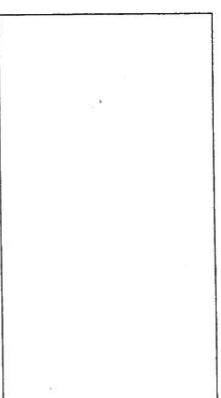
b) If you observe carefully, you can see structures attached to the tops of the stalks. What are these called? \_\_\_\_\_

c) What do they produce? \_\_\_\_\_



Stamen and anther diagram

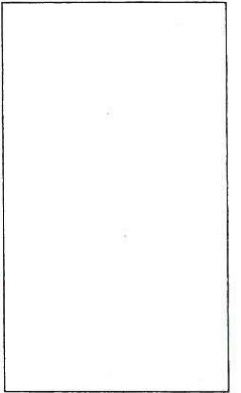
- 1) Examine the anther with a hand lens.
- 2) Add a drop of sugar solution to a microscope slide. (The sugar solution will irritate the sugary surface of the stigma.) The pollen tube uses the sugar to produce energy for growth.
- 3) Place a yellow anther in the drop of solution and stir it around with a stirring rod.
- 4) Remove the anther and add a cover slip over the drop of solution.
- 5) Examine the pollen under a microscope.
- 6) Draw a diagram of what you see.



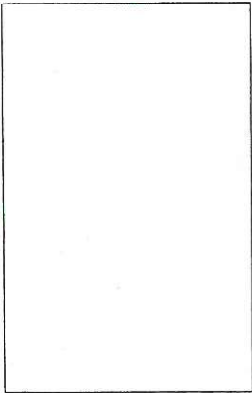
Pollen grains diagram

## Stigma, Pistil and Ovary

- 1) Draw and label a diagram of the stigma, pistil, and ovary.
- 2) Use the razor blade to cut open the ovary of the flower. Half the class will do a cross-sectional cut. The other half will do a longitudinal cut. Ask your teacher which group you are in.
- 3) Draw a diagram of what you see. If the ovary is mature, you may observe a number of chambers inside it. These chambers contain the seeds that are forming. Label your diagram to show the chambers and the seeds.



Stigma, pistil, and ovary diagram



Ovary section

### Questions:

- a) Is the ovary divided into parts? If so, how many? \_\_\_\_\_
- b) When the ovary matures, forming a fruit, how do you think it will look? \_\_\_\_\_

The stigma, pistil, and ovary are the female reproductive parts of the flower.

The stamen and anther are the male reproductive parts of the flower.

## Part Two: Read to Learn Activity

Read the handout "Sexual Reproduction" of plants to answer the following questions. Be prepared to discuss your answers in a classroom discussion.

1. Write a function for each of the following flower parts.

Stamen

Anther

Pistil

Stigma

Ovary

Petals

Pollen Tube

2. Write a definition for pollination.

3. How does pollen travel from one flower to the next for pollination? Write down 2-3 of your ideas.
  - \_\_\_\_\_
  - \_\_\_\_\_
  - \_\_\_\_\_

4. In your own words, write a paragraph describing sexual reproduction in flowers.

4. Can you think of any other ways that plants reproduce themselves? Write your ideas here.