Item #32

Parts of a Flower Lab Investigation

Word list: petal sepal stamen anther stigma ovary pistil

Part One: Procedure

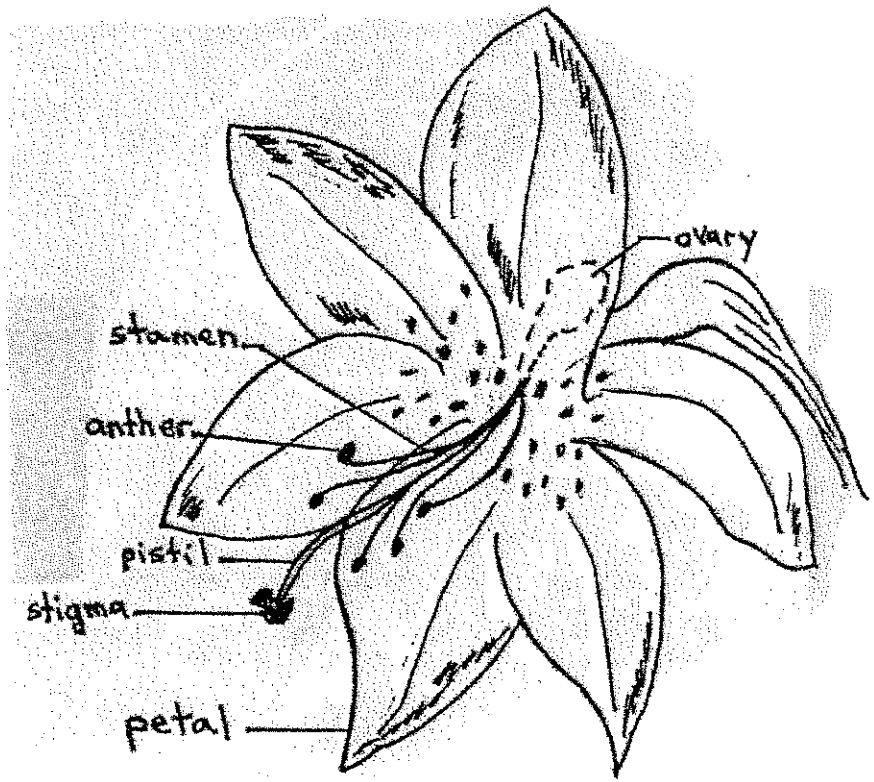
1) Observe your flower specimen.
2) Use a hand-lens to see in greater detail all the structures of the flower.
3) Record DETAILED, descriptive observations below.

a) _____

b) _____

c) _____

4) The diagram shown at the bottom is a typical flower. Your flower may be slightly different, but will have the same flower parts.
5) As you are going through your dissection, make sure you are careful and only take apart the part of the flower that you are exploring.
6) Draw and label your own diagram for each part in the boxes provided.



7) Let's begin the dissection!

Petals and Sepals

a) How many colored petals are present?
b) What do you think the advantage is for a flower to have colored petals?

Petal diagram

c) Refer to the board: There are green "leaves" directly below the petals (it almost looks like the petals are coming out of these). These are called sepals. What is their function? Thoughts? Ideas?

d) Does your Lily specimen have sepals?

Stamen and Anther

8) Carefully remove enough petals from the flower so that you can observe the inner parts. Do you see a thick stalk in the center of the flower? It could be larger or smaller than the other parts but should be in the CENTER. This part is called the pistil (as seen in the diagram on the last page). Surrounding the pistil are several upright stalks.

a) What are these called?

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

Stamen and anther diagram

c) Draw these pieces in your diagram box.
d) What do they produce?
(*hint-makes you sneeze)

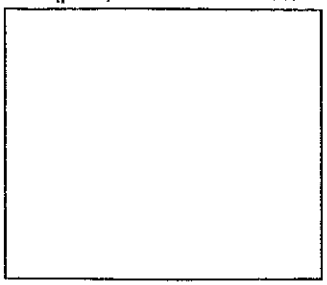
e) Examine the pollen (from the anther) under a microscope by looking at the pictures on the Promethean Board.
f) Draw a diagram of what you see in the box →

Stigma, Pistil, and Ovary

Notes

9) Carefully remove all the stamen, leaving the center stalk (pistil) attached to the stem.

a) Draw and diagram of the stigma, pistil, and ovary.

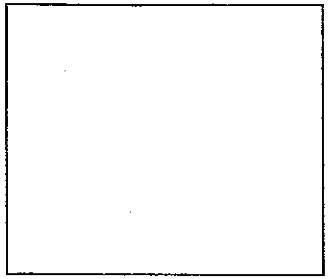


Stigma, pistil, ovary diagram

b) Gently touch the top of the pistil—what do you Notice? Record your observations.

c) Use your fingernails to split open the ovary of the flower.
(The thick, fat round part of the upper stem)

d) 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.



Ovary Section

Questions:

1) Is the ovary, divided into parts? If so, how many?

2) When the ovary matures, forming a fruit, how do you think it will look?

3) Using what you have discovered, which parts of the flower do you think are male?

Which parts do you think are female?