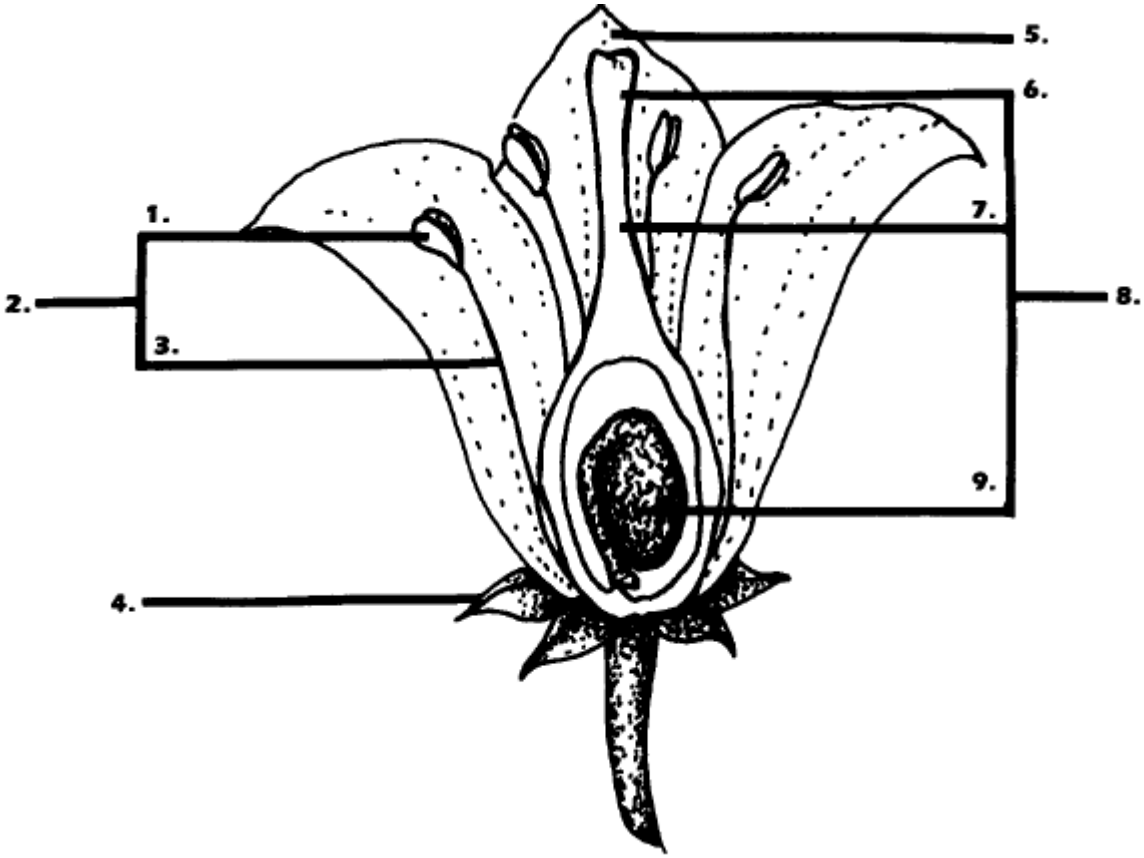
Name: _____ Date: _____

Activity: Structure of a Flower

Use the terms below to label the diagram of the flower and to fill in the statements that follow.

Stigma	Anther	Sepals	Style	Filament
Petals	Pistal	Stamen	Ovary	



1. The _____ contains the egg cells.
2. The _____ is sticky and is located on top of the pistil.
3. The petals are surrounded by the _____.
4. The anther is supported by the _____.
5. The _____, a stalk-like structure, has the stigma on its tip and the ovary at its base.
6. Often brightly coloured, the _____ are surrounded by the sepals.
7. Located at the top of the filament, the _____ contains the pollen.
8. The _____ is the collective term for the flower's female reproductive structures consisting of the stigma, style and ovary.
9. The _____ is the collective term for the flower's male reproductive structures consisting of the anther and the filament.

Lab: Flower Dissection

Objectives

1. Identify the reproductive organs of angiosperms
2. Describe the functions of the major reproductive organs of a flower
3. Explain how flowers produce seeds

Materials

- Flower
- Scalpel
- Tweezers
- Magnifying glass
- Dark paper
- Apple (for reference)

Procedure

1. Examine a flower using the diagram in your notes as a reference. Look for the sepals of the flower. They are typically on the outside of the flower, and are often green.
2. Examine the texture and colour of the flower's petals. Record observations.
3. Carefully pull back the petals of the flower to examine the stamens. Remove one anther and brush it against a dark piece of paper. Use the magnifying glass to examine the pollen grains. Record observations.
4. To see the pistil clearly, gently separate the flower from the sepals and base. The stamens will usually stay with the flower petals and the pistil remains attached to the base.
5. Locate the pistil. Identify the three parts: the stigma at the top, the long shaft called the style and the ovary at the bottom. Carefully cut the pistil open with the razor blade to see the ovary and the ovules within it. Compare the inside of the pistil to the interior of the apple. Record observations.
6. Draw a sketch of the flower you examined on a piece of white paper. Properly label the reproductive parts. Your drawing must be large, clear and neat. Do not copy the diagram of the flower from your notes.

Discussion

1. How similar was your flower to the one in the diagram? How was it different?
2. What feature of the stigma makes it suited for capturing pollen grains? What feature of the pollen grains makes them suited for being brushed off by insects and blown away by air currents?
3. What is the difference between self-pollination and cross-pollination?
4. Where are the male and female gametes produced in the flower?

Evaluation

Criteria	Great (5)	Good (4)	Average (3)	Poor (2)	Missing (0)
Observations are written using scientific language and are accurate, detailed and insightful.					
Flower sketch is large, clear and neat. All relevant parts of the flower are accurately labelled. A ruler is used where necessary.					
Discussion questions are answered correctly and completely.					