

Parts of a Flower Flipbook

OVERVIEW: The reproductive parts of a flower may be either housed on one flower with both male and female parts, or on separate flowers. Flowers of different species may look different, and they may reproduce by a variety of mechanisms (related to their own shapes, colors and smells) but they have many parts in common.

GRADE LEVEL: 6 – 8

TIME: One 50 minute block for introduction; extension lesson requires another 50 minute block.

SETTING: Classroom

OBJECTIVES: Student will be introduced to reproductive parts of flowers and understand the difference between monocotyledon and dicotyledon.

LEARNING STANDARDS CORRELATED: Science GLE 0707.4.2

QUESTION: How do I identify the reproductive parts of a flower?

MATERIALS:

- Pencil
- Colored pencils
- Flower diagram – student
- Flower diagram – teacher (transparency or PowerPoint slide)

TEACHER PREPARATION: See Teacher Notes for a summary of flower parts.

BACKGROUND: Flowers house the reproductive organs of the plant, and their structure, shape, color and smell are key to the pollination (and reproduction) process. Monocotyledons have their floral structures (flower parts) in threes or in multiples of threes. Dicotyledons have their floral structures in fours and fives or multiples of fours and fives; most flowers are dicotyledons.

PROCEDURE:

1. Each student should have pencils and a copy of the flower diagram.
2. Instruct the students to orient the paper so that the flower is upright, and facing them.
3. Fold each short end of the paper toward the center of the flower, and make a crease when you think they are lined up at the middle of the flower (forming a double door over the flower picture).
4. Open the doors so the paper is once again flat.

5. Using the transparency or PowerPoint slide of the diagram, show students how to extend the lines pointing to each flower part so they connect to the inside of one of the folded paper doors.
6. Label each part (one at a time), giving a short description of its function. Make a line between each flower part's section of the paper.
7. Cut the line between the labels/definitions, but do not cut beyond the fold of the paper. This will turn the two big doors into a series of little doors, each with a separate flower part on the back.
8. Write the name of the appropriate flower part on the front of each little door.

Extension: To reinforce the learning of floral parts, it is helpful to find a source of inexpensive or free flowers for the students to dissect. Daffodils, known as “buttercups” in Tennessee, are a good choice if you have access to them. I instruct students how to dissect using a razor blade per group, and magnifying glasses (or dissecting scopes) allow the student to see the structures up close.

JOURNALING: Observe insects visiting flowers. Write journal entries as you observe the insect move from flower to flower. If you know either the type of insect and or flower, record the name. Always be descriptive on the visiting pollinator in appearance, regardless if you can identify it or not. What behavior was observed? What structures are touched during each visit? What time of day did visitation occur? What was the weather like, in general, and temperature during your observations? Did you disturb the insect accidentally by your presence?

TEACHER NOTES – PARTS OF A PLANT

- Petals – often brightly colored and advertisement for pollinator
- Stamens – male flower parts made up of a filament and anther
- Pistil – female part of the flower, made up of the stigma and style and the ovary
- Leaves – in monocots, the leaves are usually long and straight with parallel veins; in dicots, the leaves are multi-shaped with branching veins
- Stem – Supports the flower

Flower Parts of the Flower (more detail)

Flowers are structures responsible for reproduction in many plants, and the parts inside a flower and their function are listed below

- *Sepal* – often green & resemble leaves; protects bud before it opens and protects flower while developing. The sepals collectively are known as the *calyx*
- *Petal s* – together, the petals form a *corolla*; used by flower to attract certain pollinators
- *Anther* – pollen bearing portion of the stamen
- *Filament* – supports the anther
- *Stamen* – the male part of a flower that consists of anther & filament
- *Stigma* – the top part of the style; it is sticky and catches pollen (explain here an example of how a bee with pollen sacs on their legs visits a neighboring flower for nectar. As the bee investigates, this sticky substance catches the pollen on the bee's legs and the bee escapes without harm)
- *Style* – portion between stigma and ovary
- *Ovary* – structure at the base of pistil that houses undeveloped seeds called *ovules*
- *Pistil* – the female part of the flower and consists of stigma, style, and ovary.