**What Are The Functions Of Parts Of A Flower?**

**I. Introduction**

Angiosperms are flowering plants in which the seeds are enclosed in a fruit. Angiosperms are the most common plants on Earth. They are important to all life because they form the basis for the diets of most animals.

Flowers are complex structures made up of many parts. Some parts are involved in fertilization and seed production; other parts are involved in pollination. Flowers come in many different shapes, sizes, colors, and configurations, but all share a simple, basic structure made up of four kinds of organs: sepals, petals, stamens (male reproductive organs), and pistils (female reproductive organs).

Pollination is the process of transferring pollen grains from the stamen to the stigma. Pollen can be carried by wind or by animals such as beetles, butterflies, moths, bees, flies, hummingbirds, and bats that feed on a flower's nectar and transfer pollen grains from the stamen to the stigma. Some flowers have more than one ovule. Pollination of these flowers requires that at least one pollen grain must land on the stigma for each ovule contained in the ovary.

Fertilization follows pollination. It results in an ovule forming an embryo and endosperm. The endosperm is a food-storage tissue that supports development of the embryo.

After fertilization takes place, most of the flower parts die and the seed begins to develop. The ovule hardens and becomes the seed, which helps protect the embryo until it begins growing into a new plant. Inside the ovule, the embryo grows. The ovary develops into a fruit. When the seed matures, it separates from the ovary and may be dispersed by animals or by the wind.

In this Virtual Lab you will identify the parts of a flower and examine their roles in the processes of pollination and fertilization.

**II. Procedure**

1. Start the activity by going to the following website :

<http://www.glencoe.com/sites/common_assets/science/virtual_labs/LS11/LS11.html> .

2. To select a blossom to investigate, click the Cherry Blossom or Orange Blossom button.

3. Click the Magnified Part up and down arrows to choose a flower part to identify.

4. Determine the name of the darker colored area on the selected flower part. Click the Na me

up and down arrows to select the name.

5. Determine the function of the selected flower part. Click the Description/Function up and

down arrows, and select the description/function.

6. Move the cursor over the flower. Click the location where you think the selected part

belongs. If the selected flower part's name, description/function, and location on the flower

are correct, the flower part will color in and its label will appear. If the selected flower part's

name, description/function, and/or location on the flower are incorrect, reexamine your

selections and try again.

7. When all parts of the flower have been correctly identified, click the labels to review

information about each part. Record in the Table the description and function of each flower

part.

8. Click the Show Fruit Development button to observe how the flower develops into a fruit.

9. Click the other blossom button and repeat the Virtual Lab.

**III. Data**

1. Record your data in the Table below.

|  |  |  |
| --- | --- | --- |
| **Name Of Flower Part** | **Description** | **Function** |
| **Anther** |  |  |
| **Filament** |  |  |
| **Ovary** |  |  |
| **Ovule** |  |  |
| **Petals** |  |  |
| **Pistil** |  |  |
| **Sepals** |  |  |
| **Stamen** |  |  |
| **Stigma** |  |  |
| **Style** |  |  |

**IV. Analysis & Conclusions**

**1. Which part of the flowers are important in pollination?**

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**Describe their importance in the process.**

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**2. Which part of the flower are involved in fertilization and fruit development.**

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**3. Many types of flowers produces fruits that are fragrant and sweet testing. Describe how**

**these characteristics of fruits may be important for dispersal.**

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**4. Many types of flowers are brightly colored, fragrant and produce sweet nectar.**

**Describe how these characteristics affect the process of pollination.**

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**5. Most species of plants produces flowers containing both stamen and pistils why is**

**producing flowers with both male and female reproductive structure and advantage for**

**plant?**

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