

Name \_\_\_\_\_

## LIFE CYCLE OF A FLOWERING PLANT



1. **POLLINATION** is the transfer of pollen from one flower to another flower. **POLLEN** is made of dust-like particles that carry sperm cells from the male parts of the flower to the female parts of other flowers. Pollen can be spread by the wind or carried from flower to flower by insects, like bees, or animals, like bats.

2. **FERTILIZATION** is the union, or joining, of an egg cell and a sperm cell. This can happen after pollen lands on the female part of the plant and a pollen tube grows down to the ovule. Then, sperm cells travel through the pollen tube to reach the egg cell in the ovule.

3. Egg and sperm cells that unite form a new plant, called an **EMBRYO**. An embryo is an organism in its early stages of development; in plants "embryo" usually refers to the plant inside the **SEED**. The seed houses the embryo as well as stored food. Seeds form in the ovary of the flower; the ovary becomes the **FRUIT**.

4. Seeds are **DISPERSED**, or scattered, after the fruit ripens. Like pollen, seeds can be dispersed by the wind or by animals. Animals frequently eat fruits and pass the seeds out of their bodies as waste. The seed stays intact all the way through the animals' digestive systems!

5. If conditions are favorable, the seed germinates. **GERMINATION** is the sprouting of a seed. The tough outer seed coat cracks open and the new plant emerges.

6. The new plant will then **GROW**. First, it uses food that is stored in its seed. It grows roots, stems and leaves and then starts making its own food through the process of **PHOTOSYNTHESIS**.



7. Once mature, the plant will grow its own **FLOWERS**. The male parts of the flower (stamens) produce pollen that includes sperm cells. The female part of the flower (pistil) produces egg cells, and the process is ready to repeat.

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Create a diagram of the life cycle of a flowering plant using the 7 steps from this reading.

For each step, include a picture, title, and brief description. For 1 pt. extra credit, you may color yours.