Reproduction in Flowering Plants



Secret Lives of Flowers

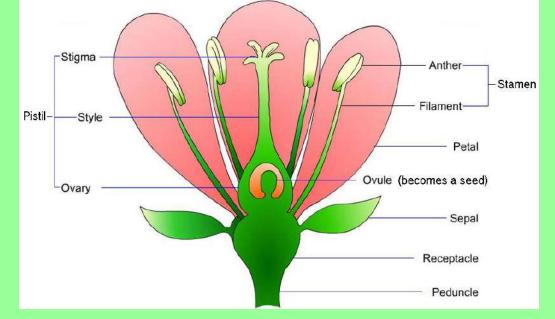


Secret Lives of Flowers

 Flowers are actually the sexual reproductive structure of a plant.

 Some flowers produce both egg and sperm, while others only produce one or the other.

 Fertilization takes place inside the flower Female reproductive organ



Male reproductive organ

<u>Pistil</u>

- *Stigma –top of the pistil,
 Sticky surface for pollen to
 stick to
- *Style connects the stigma to the ovary
- *Ovary –contains ovules (eggs)

Stamen

- *Anther produces sperm nuclei by meiosis. Sperm nuclei are enclosed by pollen grains.
- *Filament holds the anther up

Pollination

Transfer of mature pollen grains from the

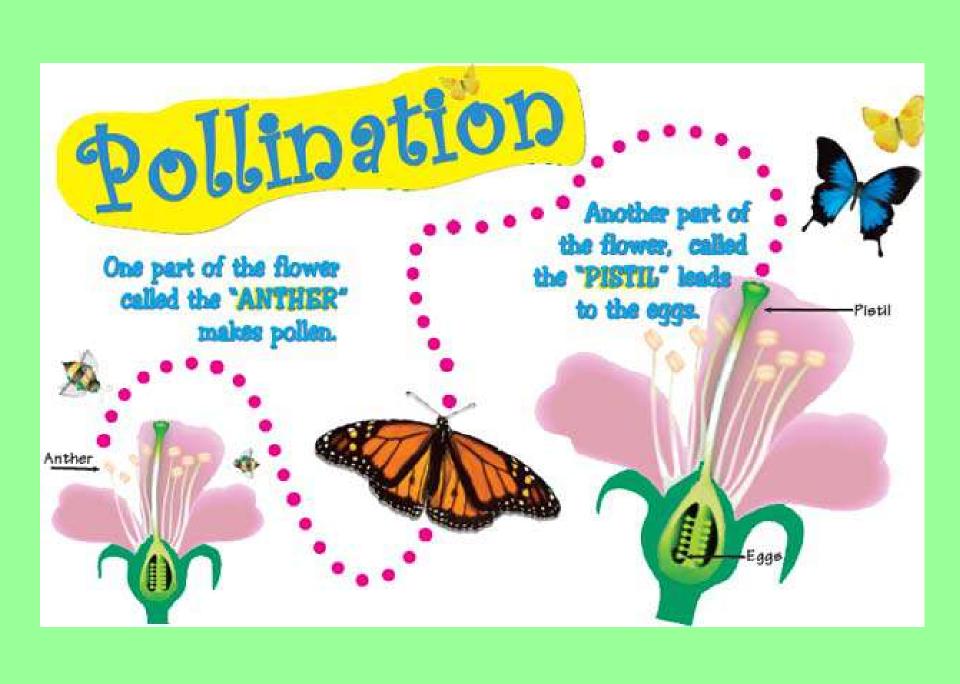
anther to the stigma

- -wind
- -insects
- -birds & other animals

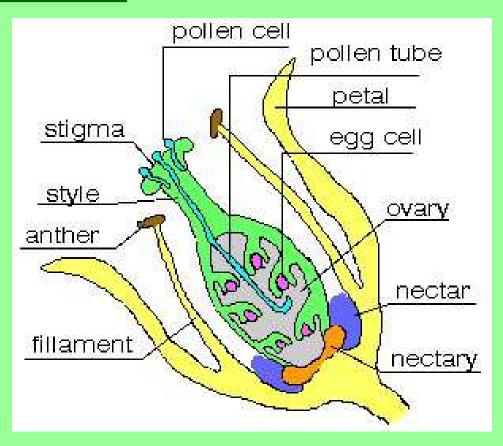






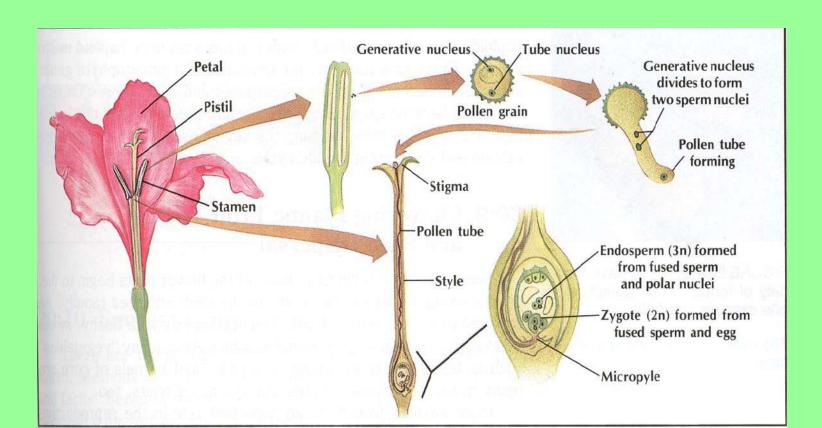


 When a pollen grain lands on the stigma, it germinates and a pollen tube grows down through the style to an ovule (egg)



Fertilization

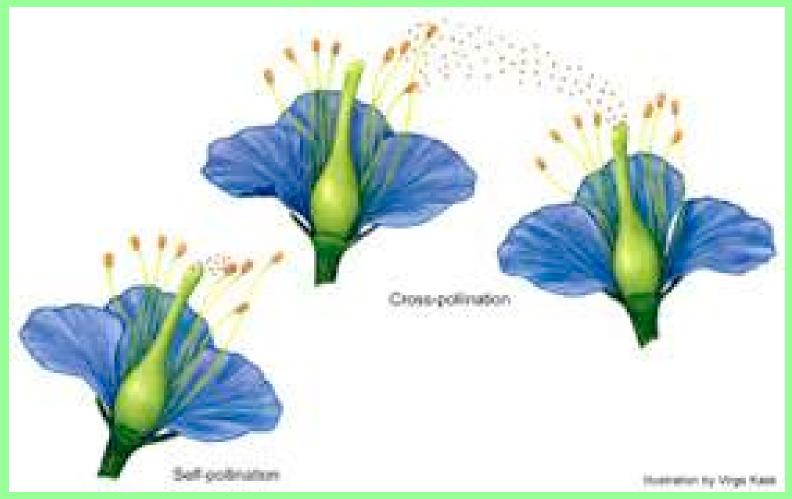
 The sperm travels through the pollen tube to the ovule. The sperm & egg fuse forming the <u>zygote</u> (fertilized egg) –this grows into the plant embryo (cells grow by mitosis)



*Self pollination –pollen from same flower

*Cross pollination – pollen from a different flower

- more variation



The ovary and zygote develop and ripen.

- *The **ovule** forms the **seed** and the **ovary** forms the **fruit**.
- A fruit is a ripened ovary







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