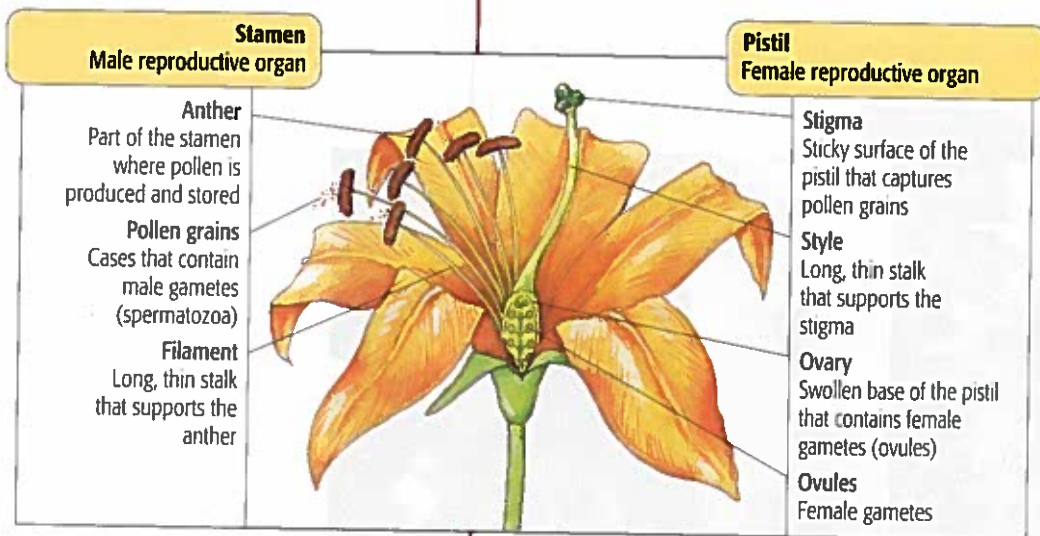




## Reproduction in Flowering Plants

Over half of all known plant species belong to the angiosperm family. Some of these plants produce large flowers. Others, such as grasses and many tree species, produce tiny flowers. All of these flowers contain the reproductive organs of the plant (see *Figure 29*).

Some flowers only have male reproductive organs (stamens), whereas others only have female reproductive organs (pistils). Flowers often have both male and female reproductive organs.



**Figure 29** Reproductive system of a typical angiosperm (flowering plant)

## Pollination and Fertilization

Pollen grains (see *Figure 30*) are produced by anthers. They must land on the stigma of the pistil in order to fertilize the flower so that it can produce seeds. This process is called **pollination**. **Self-pollination** occurs when pollen is transferred to the pistil of the same flower. For most angiosperms, however, pollen is carried to the pistil of a different flower: this is called **cross-pollination**. The wind and insects are the two key agents of cross-pollination (see *Figure 31*).



**Figure 30** Pollen grains magnified 300 times



**Figure 31** Pollen sticks to flower-visiting insects. This is how pollen is transferred from one flower to another.