

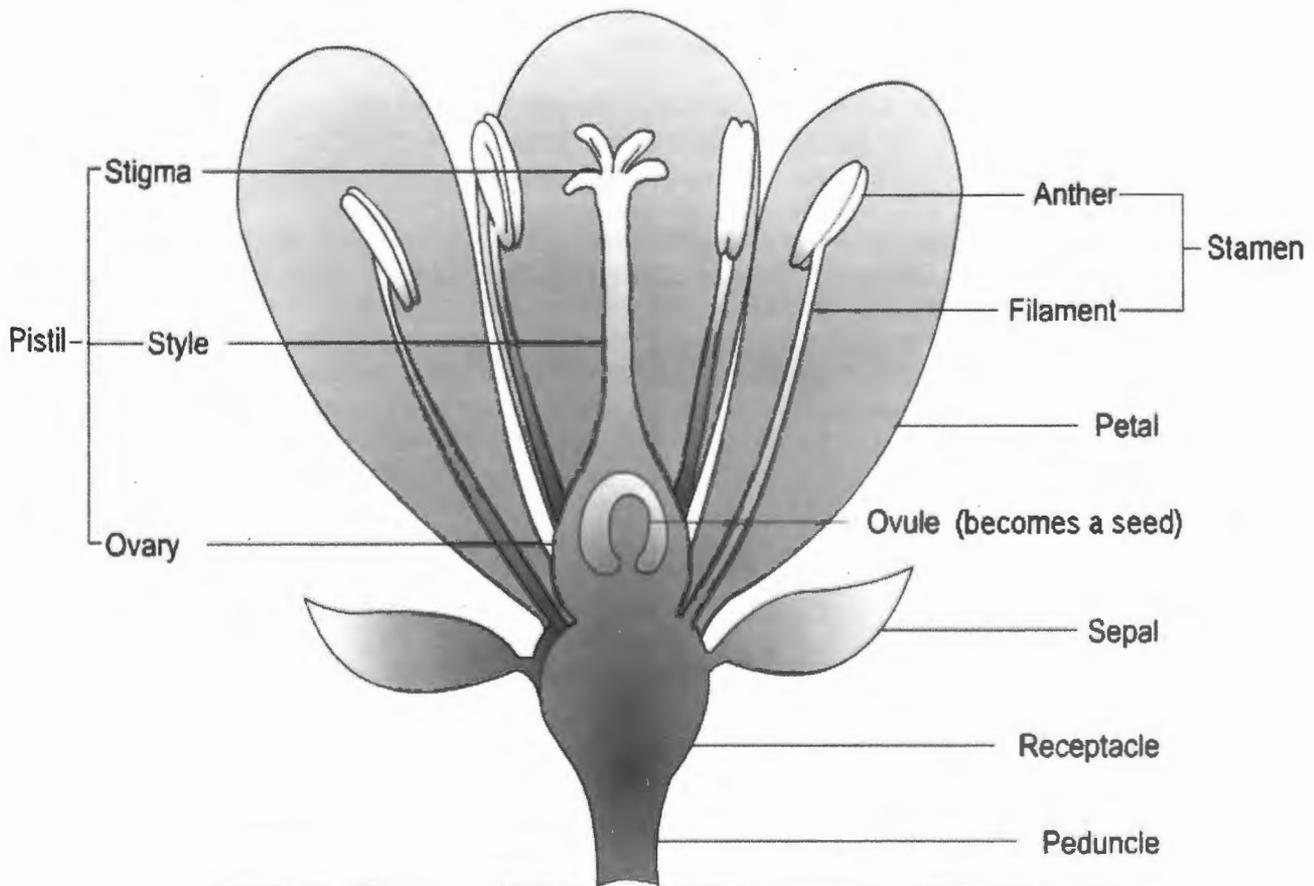
Pollination

The transfer of pollen from the **anthers** (the top of the stamen) of a flower to the sticky top of the **pistil (stigma)** of the **same flower** or of another flower is called **pollination**. **Pollination** is necessary for **fertilization** which allows the flower to develop seeds.

Some flowers will develop seeds as a result of **self-pollination**, when pollen and pistil are from the same plant, often (but not always) from the same flower. Other plants require **cross-pollination**, where the **pollen** and pistil must be from **different plants** of the same type. **Pollination** results in **fertilization**. Most plants need help moving pollen from one flower to the pistil of another. Birds and insects are responsible for **pollinating** many flowers. Animals that are known to be good **pollinators** of flowers include bees, butterflies, hummingbirds, moths, some flies, some wasps, and nectar-feeding bats. They knock **pollen** off the **anther** and onto the **pistil**. Rain and wind also help in pollination.

A **seed** is formed when the **pollen** meets the **ovule (egg)** in the **ovary** of a flower. Seeds are usually formed in a **fruit**. A mature fruit releases its seeds. The seeds land on soil and create new plants. Seeds move away from parent plants in many ways. By being moved, the seeds can grow in a place where there is enough water, food and light.

Can you think of ways a seed can move? _____



Parts of a Flower

Pollination, continued

The U.S. Department of Agriculture estimates that about 35 per cent of the human diet comes from insect pollinated plants. Bees are responsible for 80 per cent of this amount.



Honeybee



Wasp



Bumblebee

Normally we think of the honeybee as the chief pollinator in our gardens, but there are over **3,500 varieties of bees** in the United States alone.

Many people are confused about the difference between a bee and a wasp, and most people do not realize that some flies look very much like a bee or wasp.

Other types of bees include bumble bees, sweat bees, carpenter bees, leafcutter bees and at least another 3,496 varieties. Often these bees are called **solitary bees**, native bees, or pollen bees. Many are specialists and pollinate only one type of plant.

Since pollinators are so very important to our food supply we should do everything we can to protect and encourage them. **Native pollinators** are much better pollinators than European honey bees. They are in trouble due to **habitat destruction** and widespread **pesticide** use. We can help native pollinators survive by planting native plants, providing nesting places and water. They prefer meadows filled with native plants. We can also build nesting boxes for some of the pollinators. Protecting our native pollinators is very important to our future food supply.

While you are in the garden today, look at the flowers on different plants and see if you can see a bee or other insect that is being a **pollinator**. If the insect is a bee, what kind is it? Try to identify the **parts** of a flower.

Pollination is the transfer of _____ from _____ to _____.

Pollination results in _____.

Fertilization results in _____ being formed.

Name five agents of pollination. 1. _____ 2. _____

3. _____ 4. _____ 5. _____

Are European honey bees the best pollinators? _____

Name three things that native pollinators need. 1. _____

2. _____ 3. _____