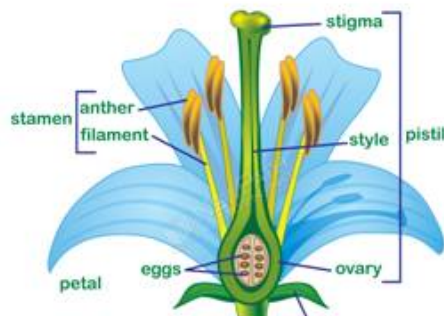


FLOWERS AND SEEDS

The Structure of a Flower

The **flower** is the seed factory of the plant – where the flower produces seeds.

Let's check out the flower:



There are

A flower's sepals protect the bud while it grows. Petals are colorful, which attract insects.

Please login or register to download the printable version of this study guide.

www.newpathlearning.com

protect the bud
colorful, which

The **stamen** is the male part of a flower. It includes the **anther** and the **filament**. The filament is a thin structure. Anthers are at the top of each filament. The anther contains pollen that is a necessary ingredient to plant reproduction.

The **pistil** of a flower includes the **stigma**, **style**, and **ovary**. Eggs can be found at the bottom of the pistil. The stigma is at the tip of the style of the pistil. Pollen collects on the stigma of flowers. The ovary of a flower contains seeds. The **ovule** is the part of the plant that becomes a fruit.

Lesson Checkpoint: Where does pollen collect on flowers?

An Imperfect Flower?

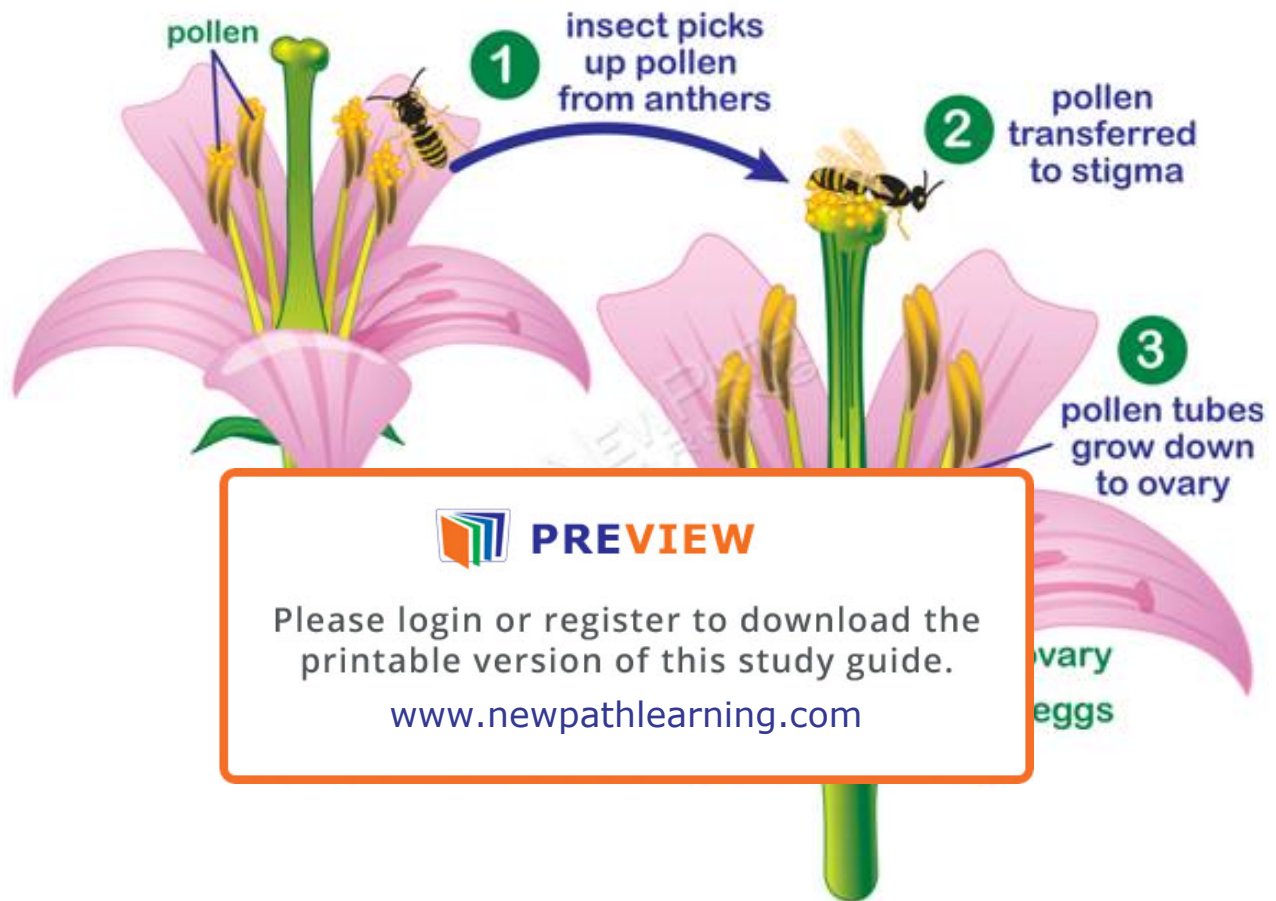
Can you believe that there is such a thing as an imperfect flower??

A **perfect flower** is a flower with both a stamen and a pistil.

An **imperfect flower** is a flower with only a stamen OR a pistil, not both.

Flower Pollination & Fertilization

These processes are the keys to a flower's reproduction process.



 **PREVIEW**

Please login or register to download the printable version of this study guide.

www.newpathlearning.com

Pollination is the first step in flower reproduction. Here is how it happens:

1. **Pollen** sticks to an insect or animal from the anthers of one flower.
2. When that same insect or animal goes to another flower of the same kind, the insect or animal deposits the pollen onto the **stigma** of that flower.
3. **Pollen tubes** grow from the pistil of the flower down to the egg cells.
4. The sperm cells from the pollen go from the stigma down the style through the pollen tubes to the **ovary** of the flower.
5. When an **ovule** is fertilized, the DNA information from the pollen combines with the DNA information of the ovule and a seed is created.

Lesson Checkpoint: How does pollination occur?

Two types of pollination

Cross-pollination is the transfer of pollen from the anther of one flower to the stigma of another flower.

Self-pollination is the transfer of pollen from anther to stigma on the same flower or to the stigma of another flower on the same plant.

The Structure of a Seed



Please login or register to download the printable version of this study guide.

www.newpathlearning.com

Seeds have the
endosperm.
wear when it'
The **embryo**
the **endospe**

a *coat* you
to germinate.
and

How do seeds get around?

Seeds are dispersed in several different ways. Seeds sometimes just fall from the parent flower onto the soil nearby the parent plant. Other seeds are dispersed by animals moving them from one place to another. Still others are eaten by animals and then go through the animal's digestive system. When the animal rids its body of waste, the seeds are then dispersed in soil where the seeds can germinate when the conditions are right – talk about instant fertilizer!

Lesson Checkpoint:

What are two ways plant seeds are dispersed?

Germination

When the conditions are right, a seed will germinate. Roots will grow out from the seed and down into the soil. The stem of the plant will then grow upwards. Ta da... a new plant is growing!!



PREVIEW

Please login or register to download the printable version of this study guide.

www.newpathlearning.com