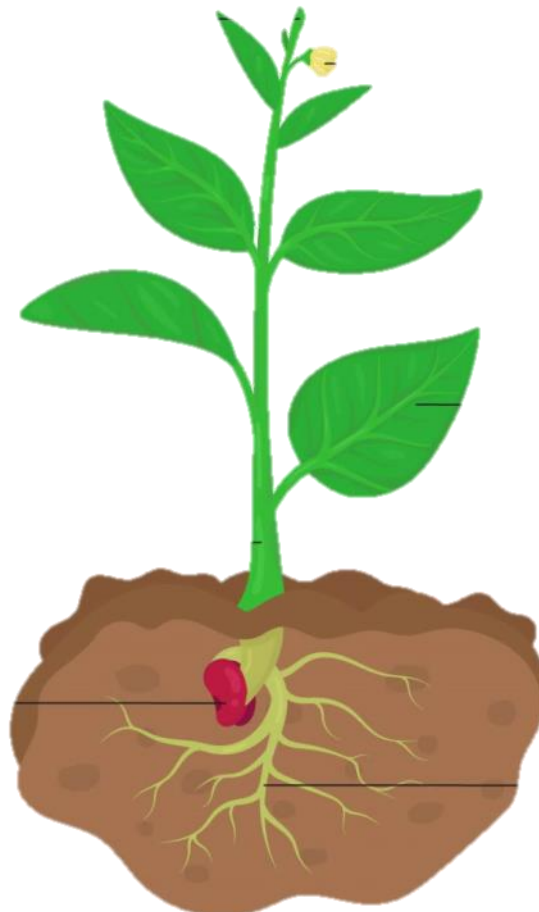




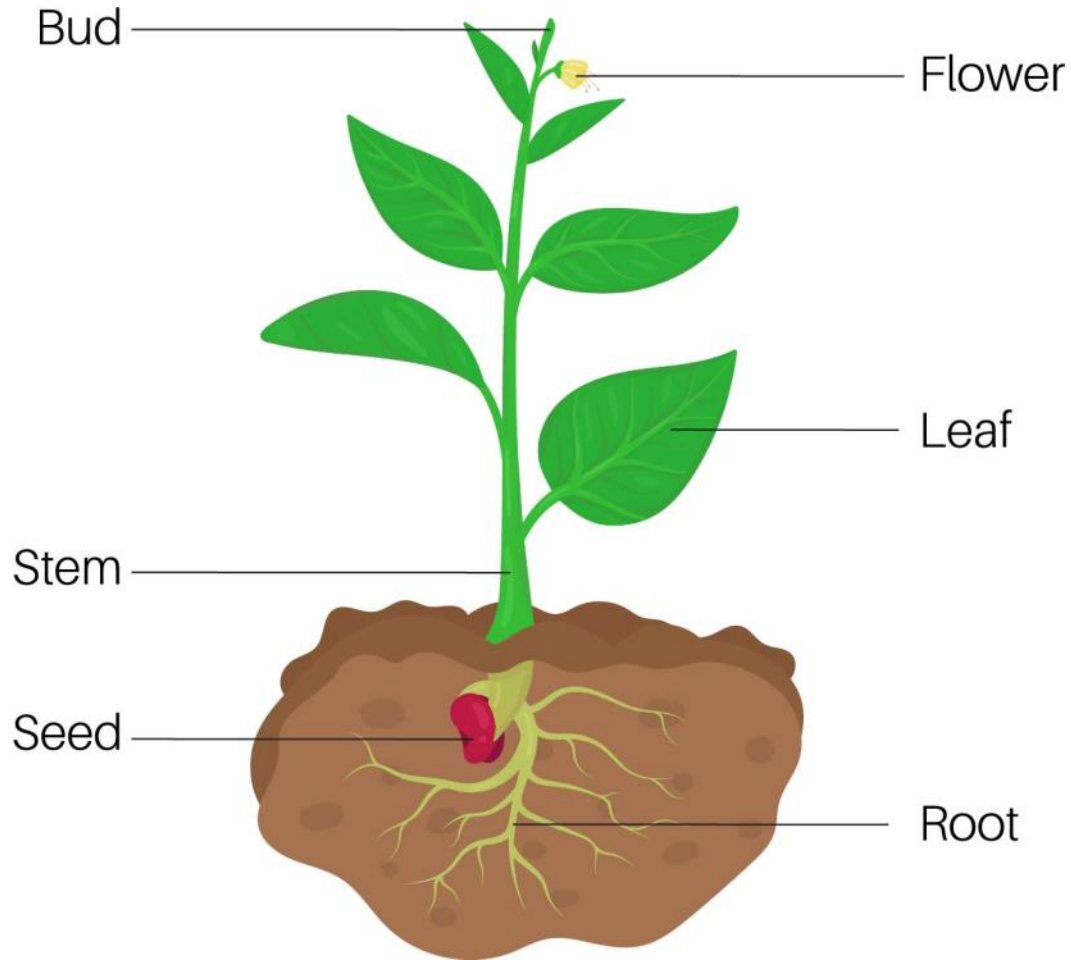
Where do seeds come from?

# Warm up!

How many parts of this plant can you name?



# Parts of a plant

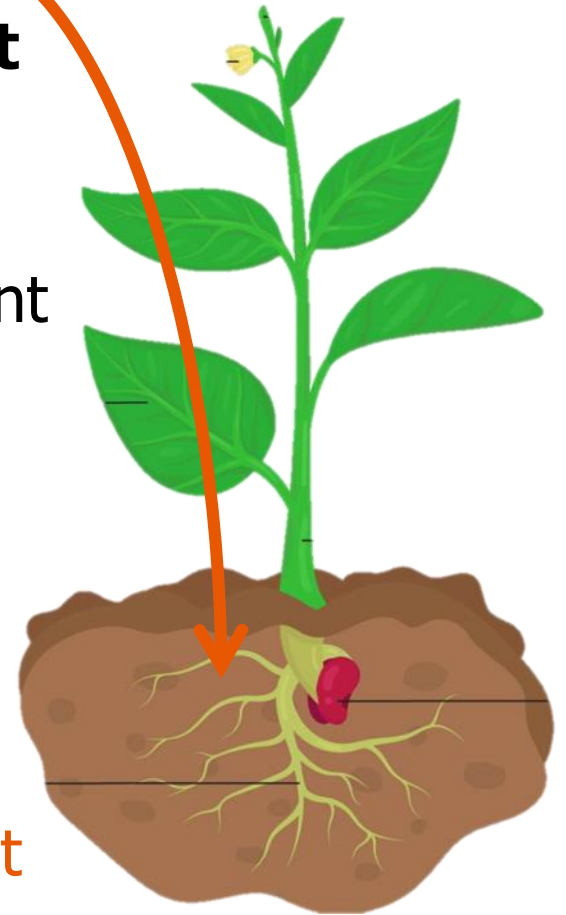


# The root

**Plants need roots for two important reasons:**

1. They act as an anchor to hold the plant in the soil.
2. They take up water and dissolved minerals from the soil.

If we take away a plant's roots, the plant could easily be blown away or knocked over and the plant would not be able to absorb water and minerals from the soil.

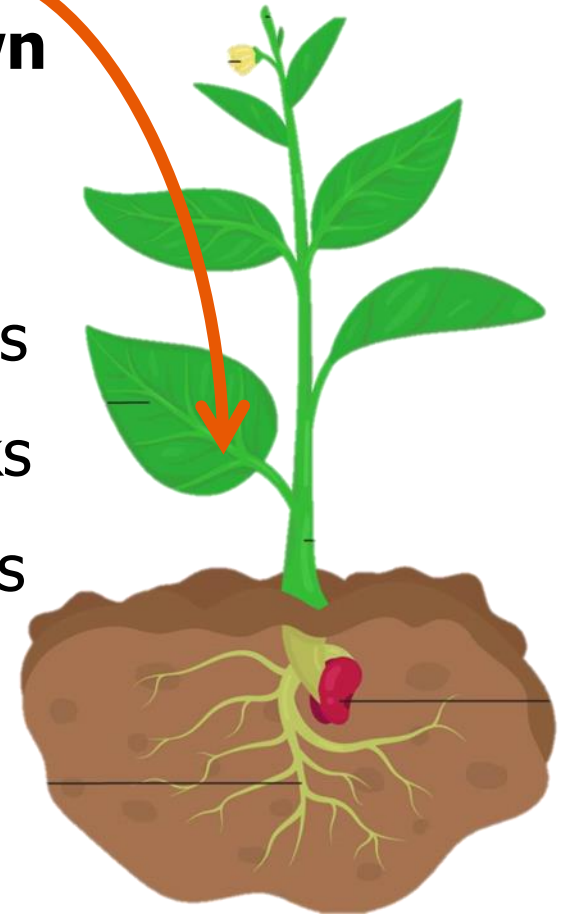


# Leaves

**Plants need leaves to make their own food.**

Leaves trap energy from the sun which is used to produce sugars. The plant breaks down these sugars to give it energy. This process is called photosynthesis.

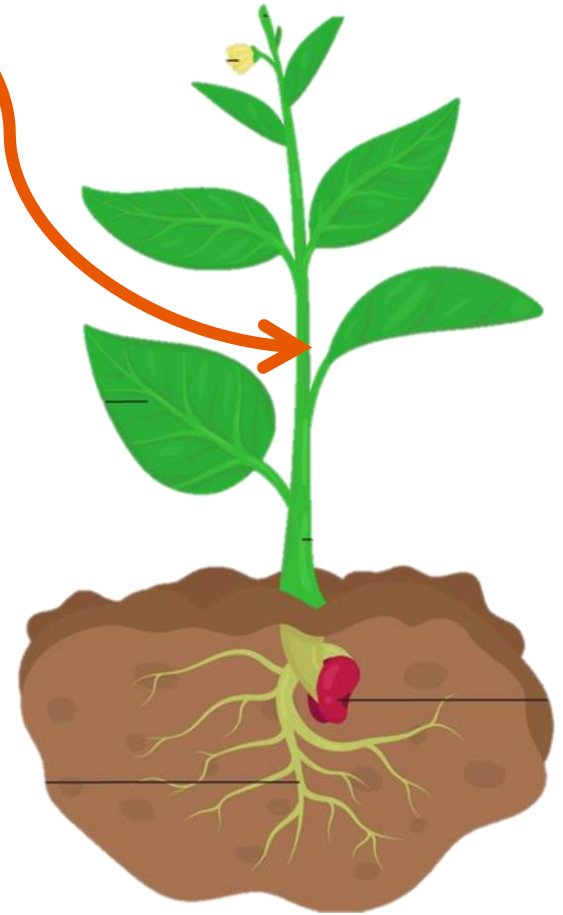
If we take away a plant's leaves, photosynthesis will not take place and the plant will not be able to make its own food.



# The stem

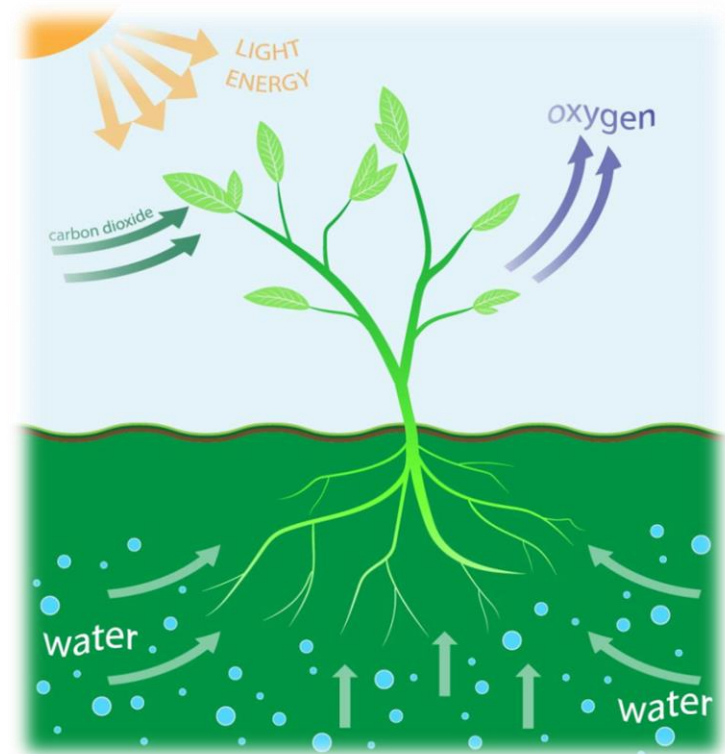
**Plants need stems for three important reasons:**

1. They hold the leaves and flowers above the ground so that leaves can get sunlight and flowers can attract insects.
2. They help to transport minerals and water from the roots to the rest of the plant.
3. They help to carry sugars away from the leaves.

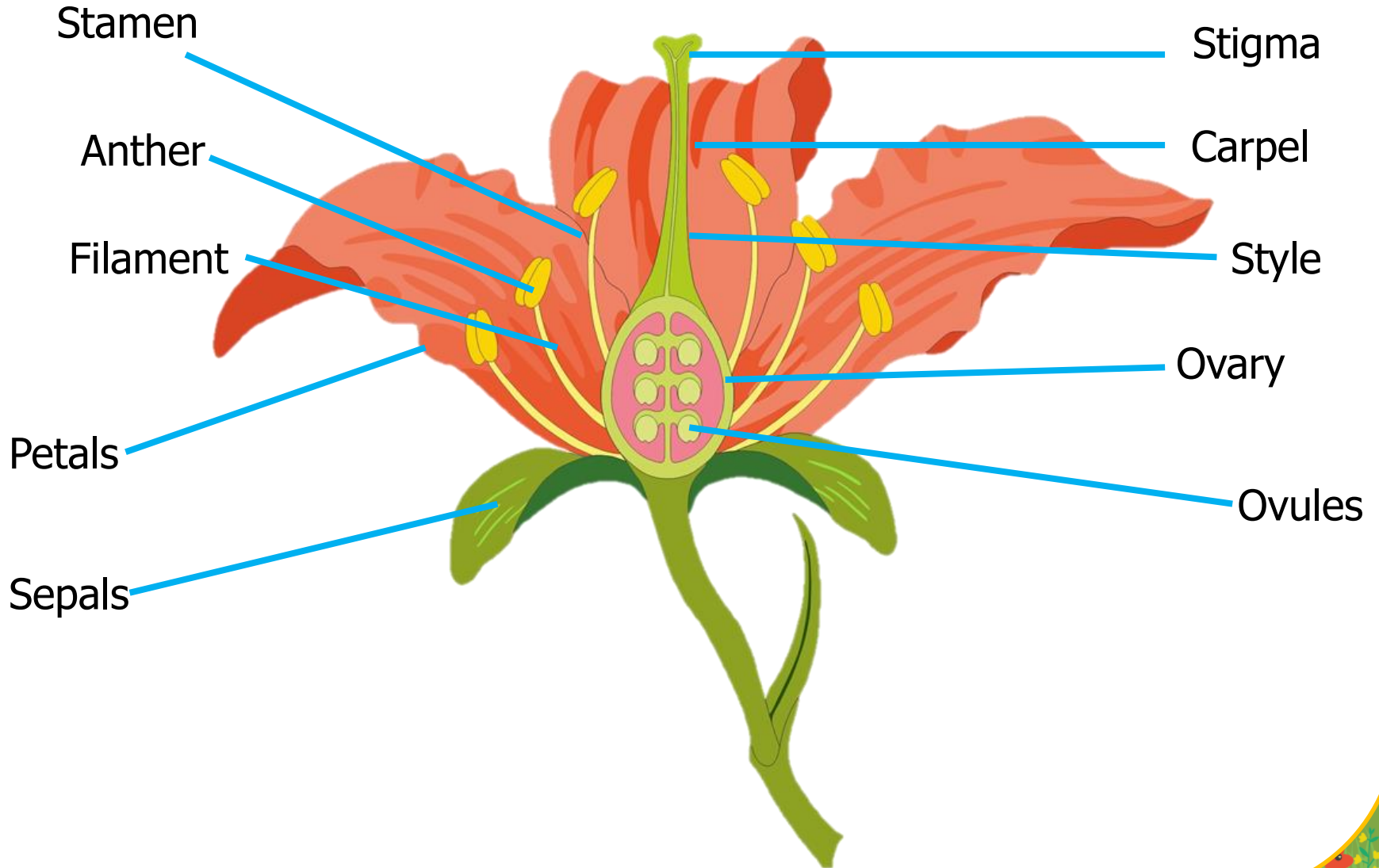


# Why do plants need water and sunlight?

To make their own food in the leaves, plants need water and sunlight. If plants do not have water and sunlight then photosynthesis cannot take place and the plants will die.



# Parts of a flower



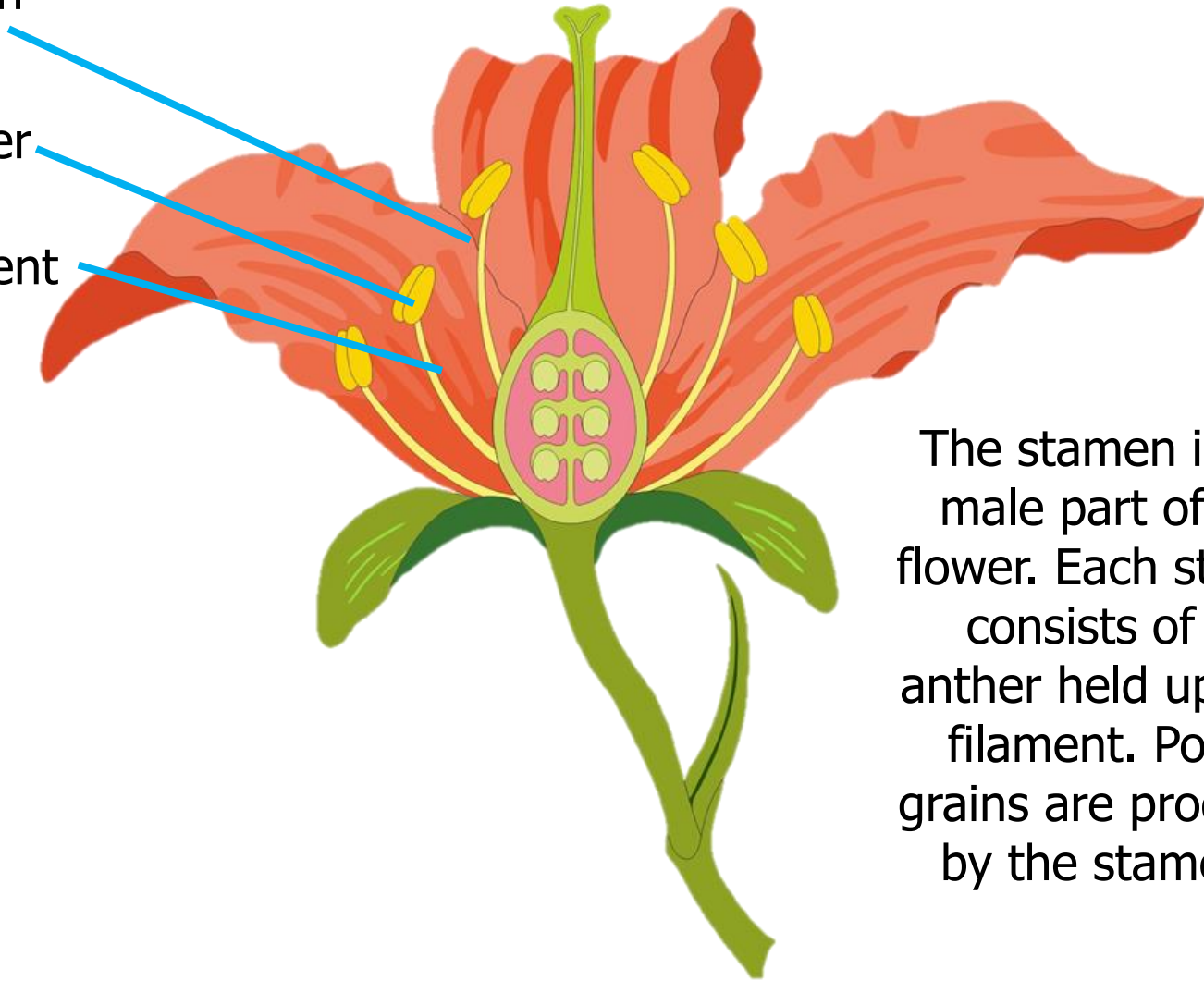


# The Stamen

Stamen

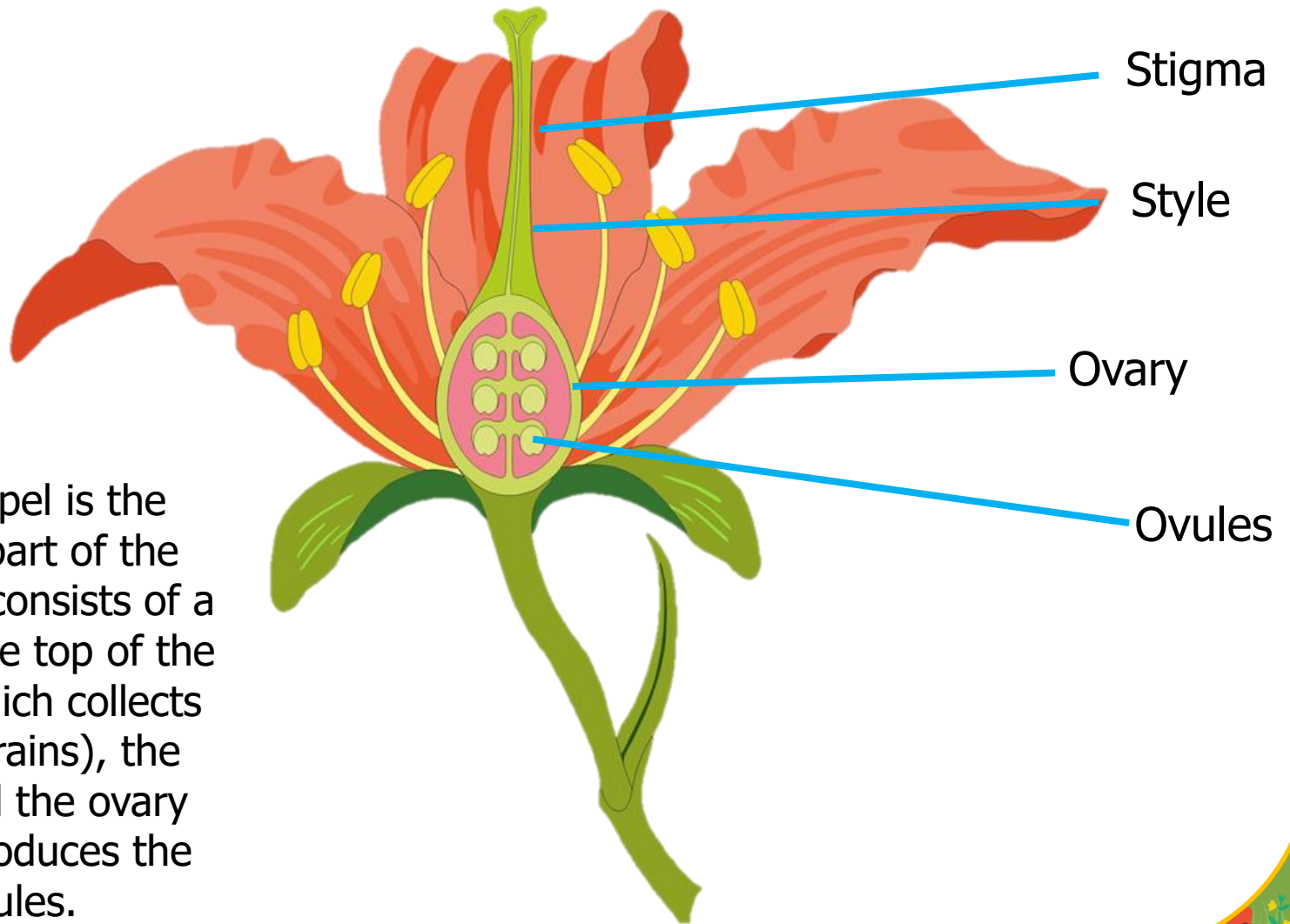
Anther

Filament



The stamen is the male part of the flower. Each stamen consists of an anther held up on a filament. Pollen grains are produced by the stamens.

# The Carpel



The carpel is the female part of the flower. It consists of a stigma (the top of the carpel which collects pollen grains), the style and the ovary which produces the ovules.

# Reproduction in plants

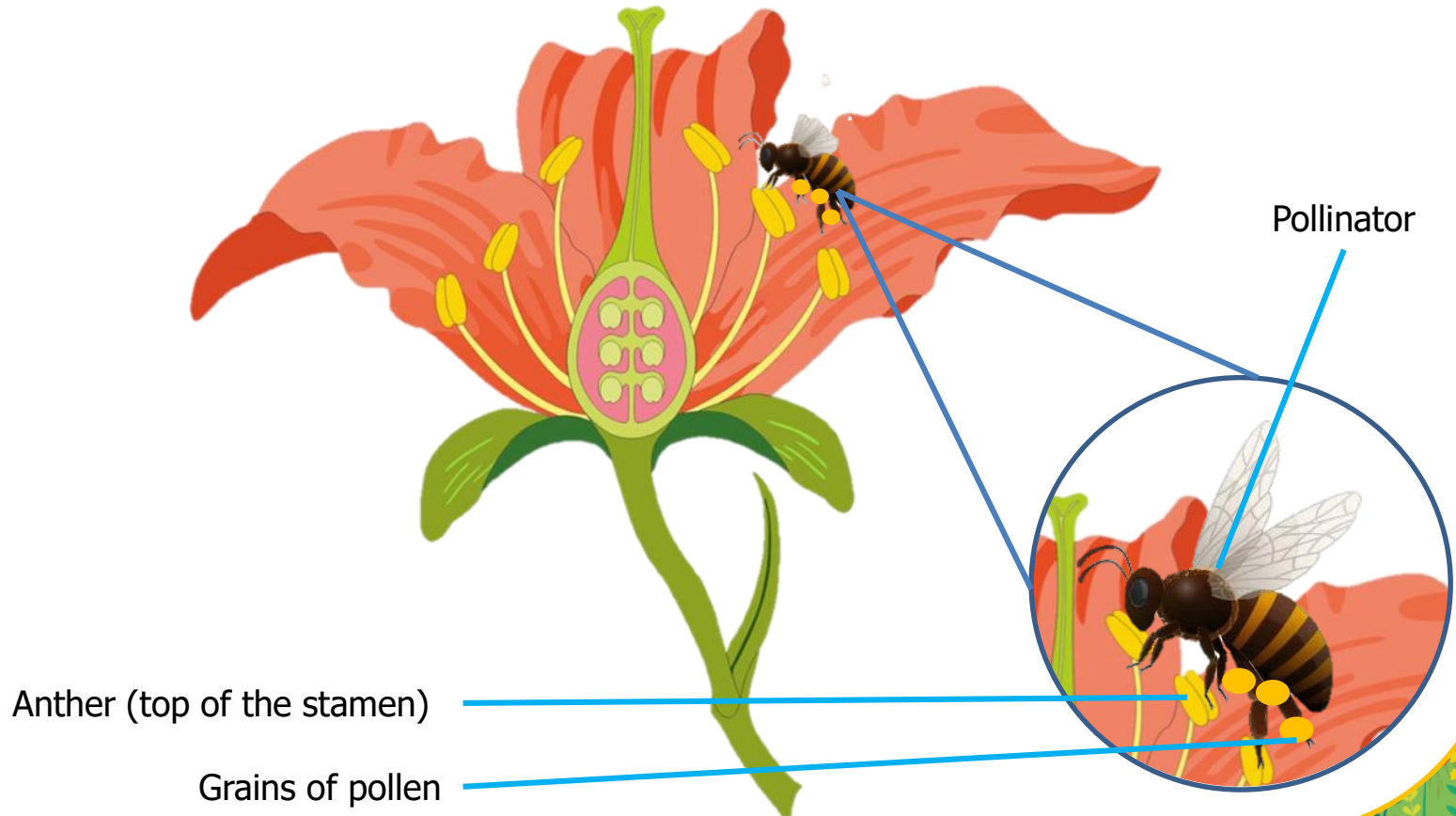
Flowering plants reproduce (make more of themselves) by making **seeds**.

Two processes must take place in the flower for seeds to be made: pollination and fertilisation.



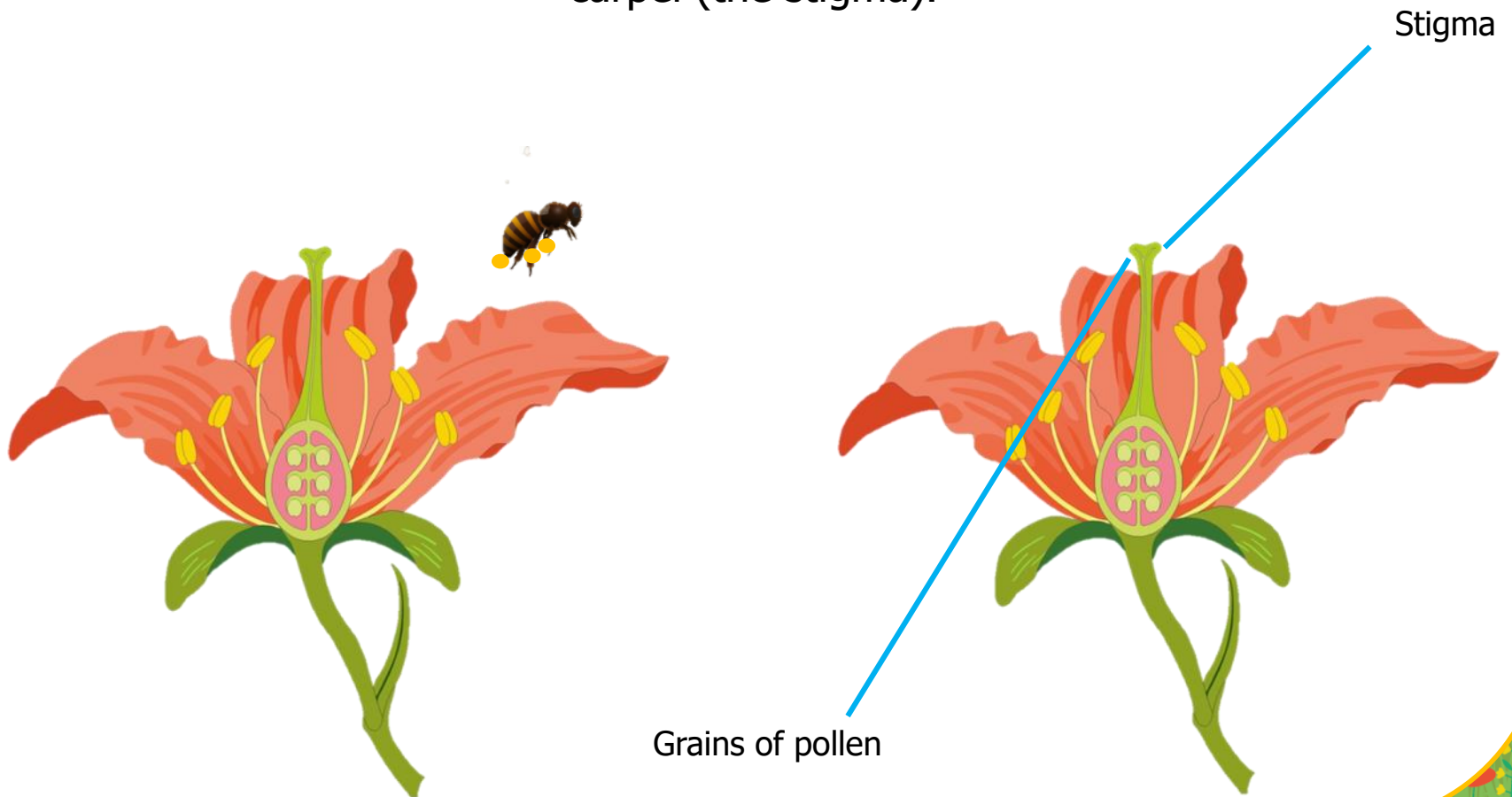
# Pollination

Pollination takes place when the pollen from the male part of one flower (the stamen) travels to the female part of the same or another flower (the carpel). This can happen when pollinators, such as insects or birds, brush against the stamen of the first flower when they are drinking its nectar. Grains of pollen brush off the top of the stamen (the anther) and onto the pollinator.



# Pollination

Then, when the pollinator travels to a different flower, the grains of pollen from the first plant fall off them and stick to the sticky top of second flower's carpel (the stigma).



# Fertilisation

Once the pollen grain has stuck to the stigma of the second flower, a pollen tube grows through the style of the carpel until it reaches the ovary which contains ovules. Fertilisation takes place when the pollen grain joins together with an ovule in the ovary.

The fertilised ovule will then become a seed.

