



STEMterprise

Stage 2: Plant Reproduction

Learning Objectives:

- To understand how flowering plants reproduce

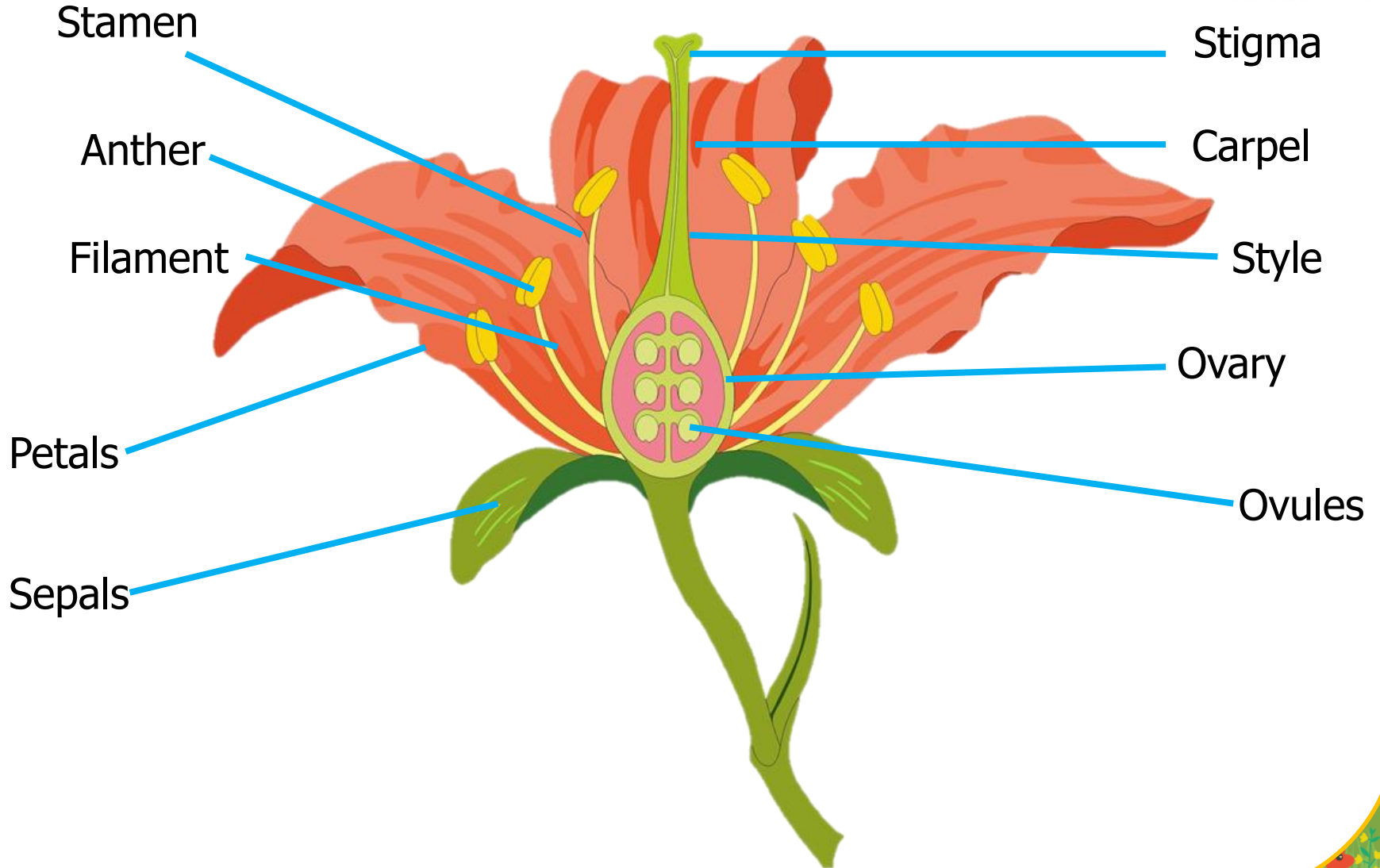


Warm up!

Can you remember any flower parts?



Parts of the flower

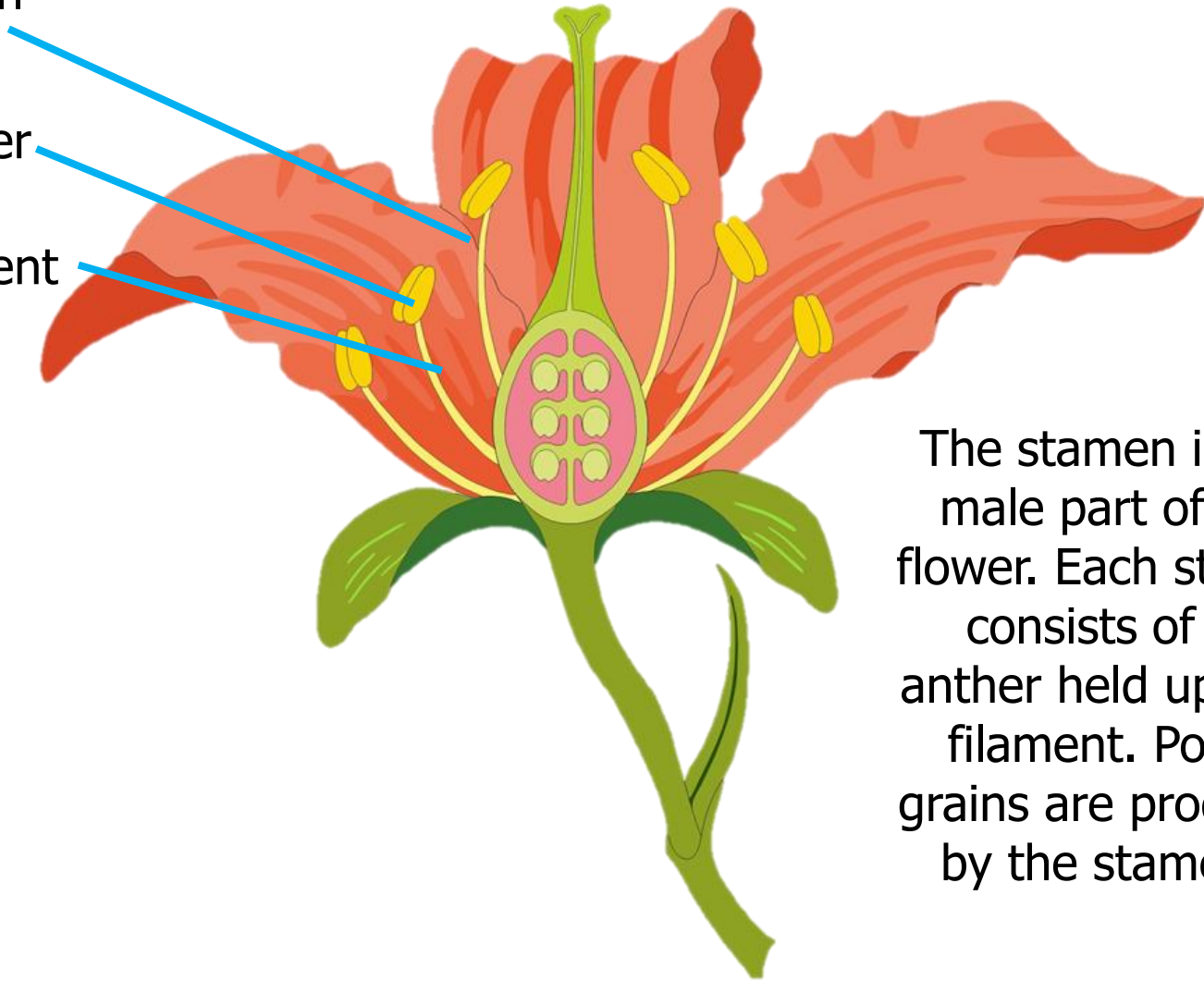


The Stamen

Stamen

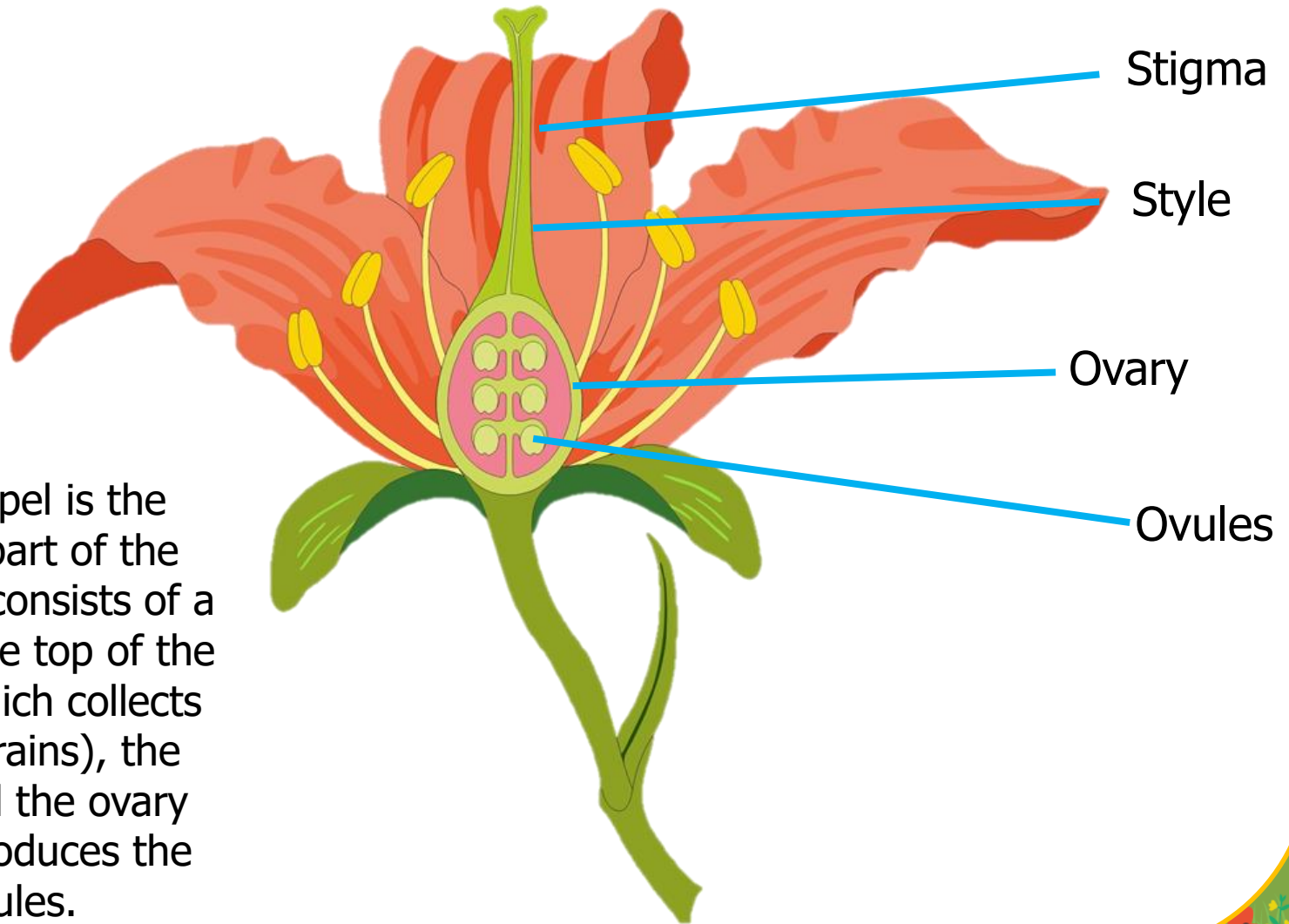
Anther

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

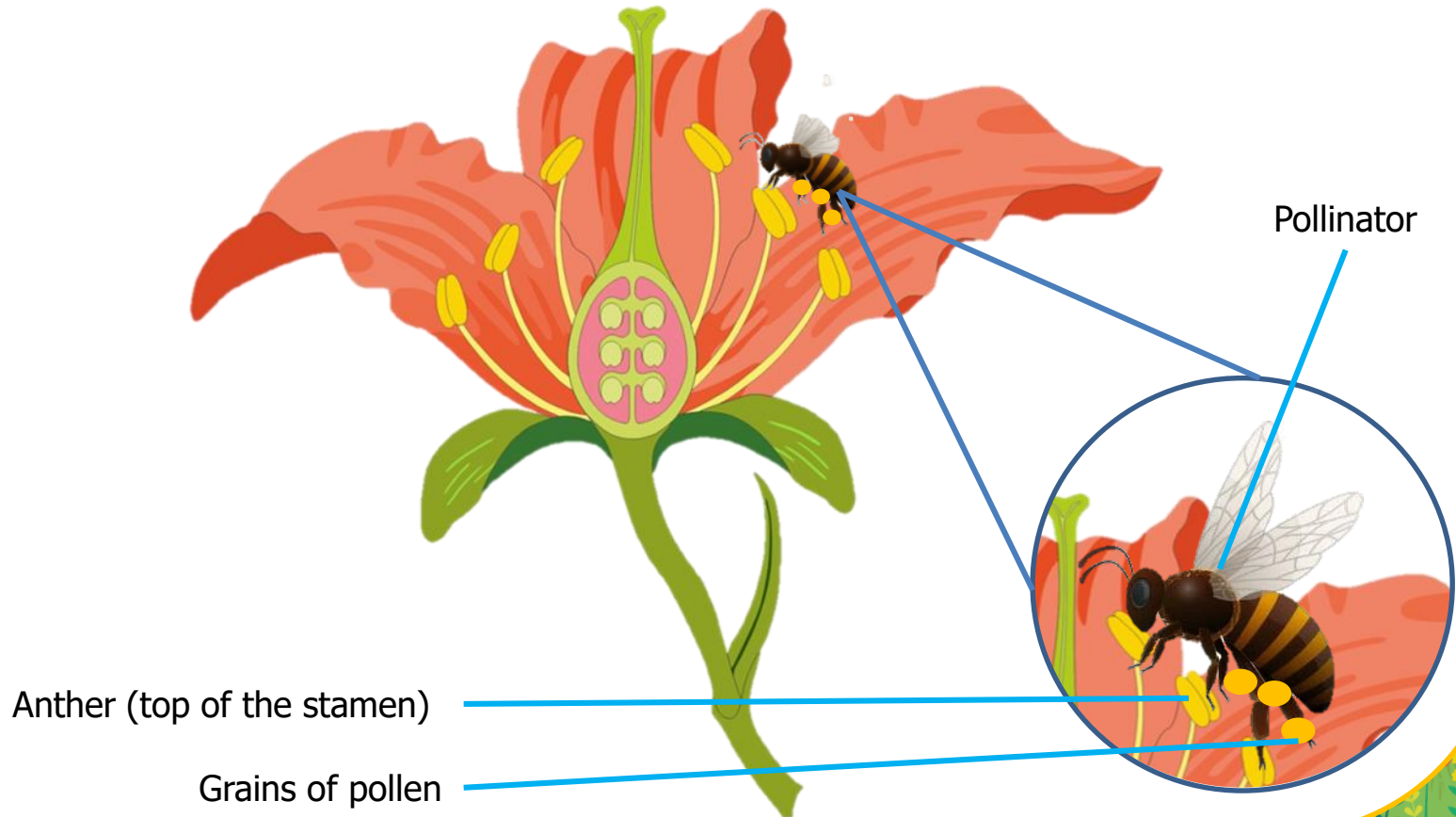
Flowering plants reproduce (make more of themselves) by making seeds. Two processes must take place in the flower for seeds to be made: pollination and fertilisation.



Pollination

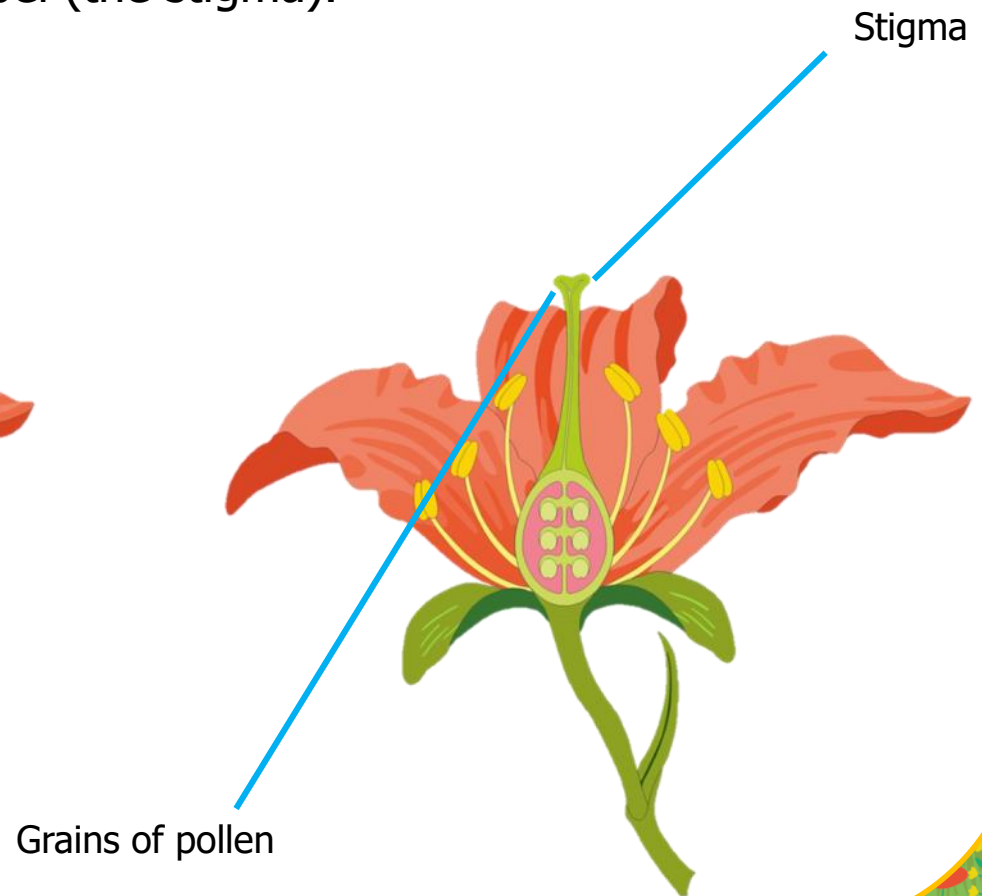


Pollination takes place when the pollen from the male part of one flower (the stamen) travels to the female part of the same or another flower (the carpel). This can happen when pollinators, such as insects or birds, brush against the stamen of the first flower when they are drinking its nectar. Grains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



Pollination

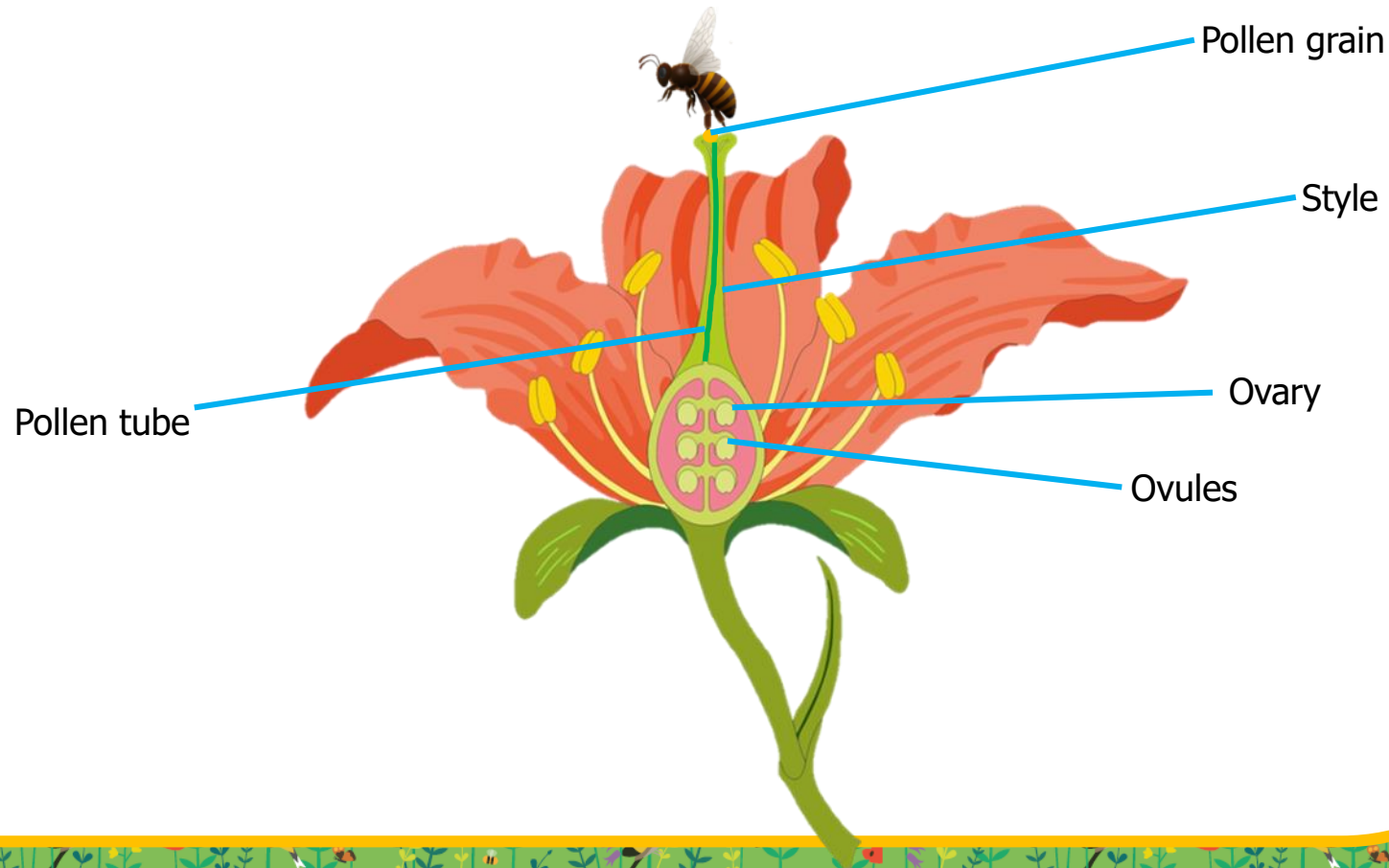
Then, when the pollinator travels to a different flower, the grains of pollen from the first plant fall off them and stick to the sticky top of second flower's carpel (the stigma).



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.



https://www.google.co.uk/search?q=dissecting+a+flower+ks2&rlz=1C1GGRV_enGB751GB751&oq=dissecting+a+flower&aqs=chrome.1.69i57j0l5.9260j1j7&sourceid=chrome&ie=UTF-8#kpvalbx=1



Activity: Practical exploration

Use a flower from your garden or collected on your daily walk.

Watch the video on the link above.

Carefully dissect your flower and examine each part.

Arrange each dissected part separately on your large strip of paper and label them

While you are working, discuss the parts you are labelling and how they are involved in pollination and fertilisation.

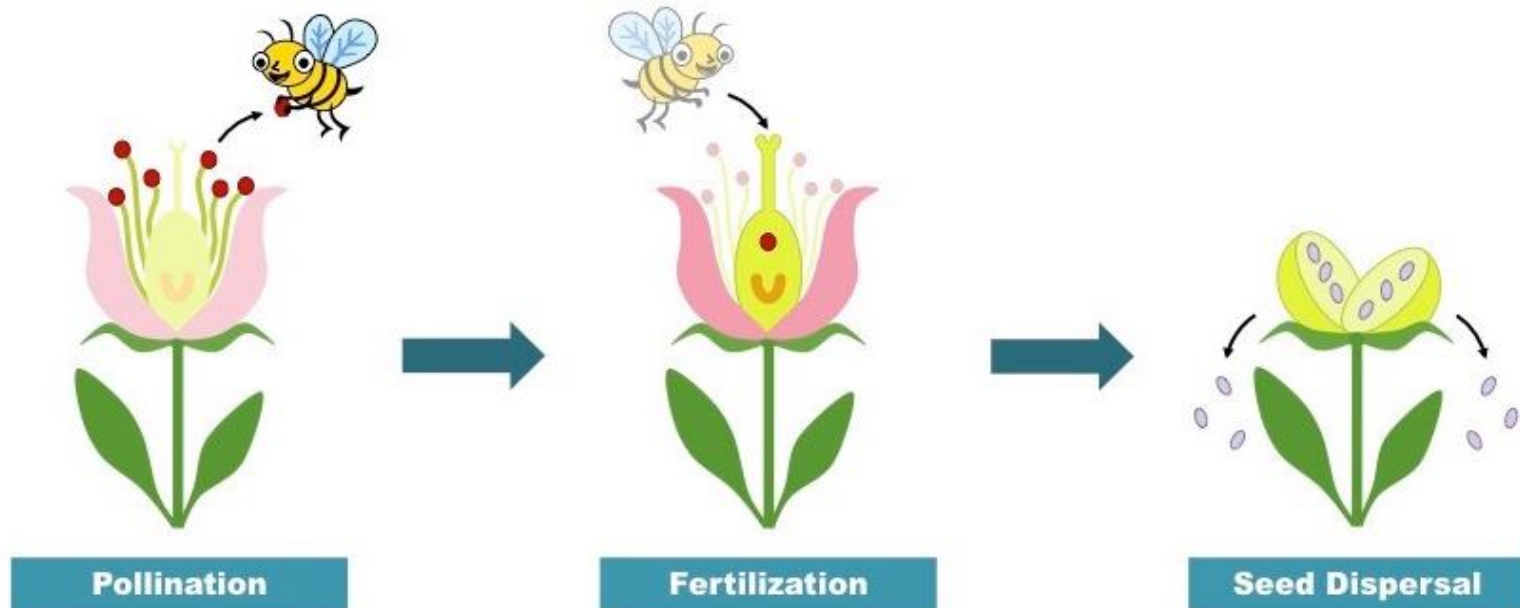



If you can't get a flower to examine, try drawing each of the parts instead and create a poster about the parts of a flower.

Activity 2: Application of learning

Use your learning to write an explanation of the processes of pollination and fertilisation in plants.

Plant Reproduction Stages





Add a photograph of your work to
the class blog or email in purple
mash if you can