

# LEARNING RESOURCE

## FLOWER DISSECTION

### MATERIALS

- A long stem flower (Tulips work well)
- Scissors
- Scalpel or knife (*adult supervision required*)
- A piece of paper, tape and pencil for recording
- A microscope (optional)

### PREPERATION

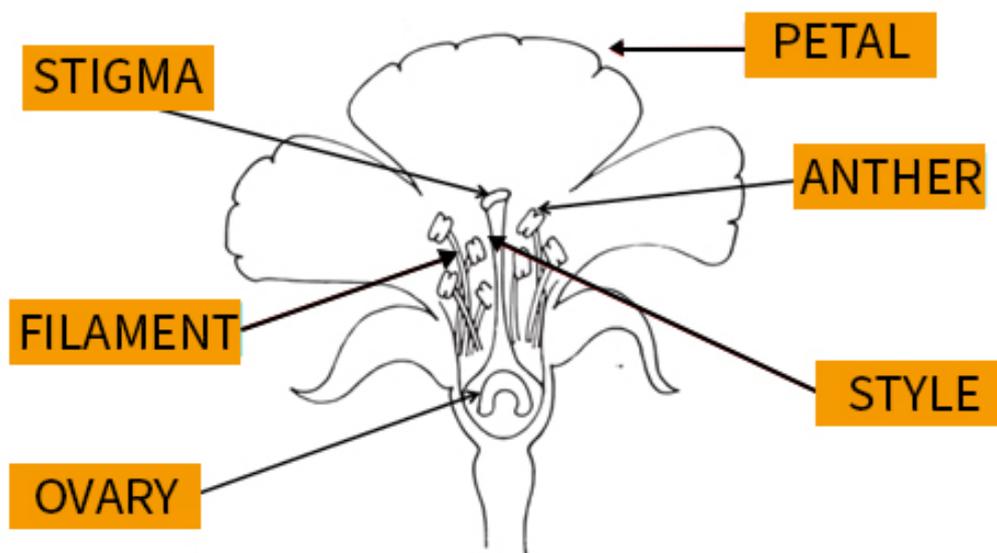
- None required.

### INSTRUCTIONS

1. Take your flower and carefully remove any leaves attached. Take a close look at them using your eyes and/or a microscope and discuss what they are used for. Leaves are important for photosynthesis (making energy to keep plants alive)
2. Carefully remove the petals from the flower head. Take a close look at them using your eyes and/or a microscope and discuss what they are used for. Petals are important for attracting insects to flowers in order to pollinate them.

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4. The structure in the centre is the female part of the flower and is collectively known as the carpel. The carpel consists of the stigma at the top held up by a tube structure known as the style. You can carefully remove this structure and slice it in half to see the ovary and any eggs inside, use your eyes and/or a microscope to have a closer look.
5. The structures found around the carpel are the male parts of the flower, these consist of a long thin stalk known as the filament and the anther on top of each filament and is collectively known as the 'stamen'. The anther contains the flowers pollen granules which are the male reproductive cells. You can carefully remove a filament and anther structure, if you slice the anther open you will find lots of pollen inside.
6. If you have access to a microscope you could sprinkle some pollen onto a microscope slide and have a closer look at these cells.

## LEARNING RESOURCE

7. Once you have examined each part of the flower arrange them all onto a sheet of paper and stick them down. You can then label each part clearly using a pencil.

### EXTENSION

- Can you add descriptions to each label on your sheet to tell the reader what job that part of the flower does? Did you notice anything about the structures that would make them particularly good at their job?
- Choose a different flower and dissect in the same way, are there any similarities or differences between the two?

### SCIENCE BEHIND THE FLOWER STRUCTURE

In order to survive, a flower needs to be fertilised (or pollinated) this can either be by 'self-pollination' when the pollen is transferred from the male part of a flower (stamen) to the female part (stigma) of **the same flower**. The pollen travels down the style and to the ovary where it fertilises the egg cells, this creates a seed which can then grow into a new plant.

Bees are extremely important for flower pollination as they travel from flower to flower carrying sticky pollen from the stamen of one flower and delivering it onto the sticky stigma of a **different** flower, this is called 'cross-pollination'.