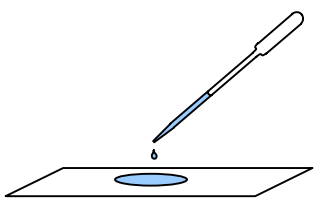
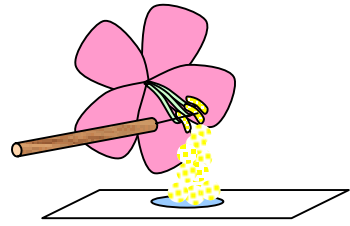
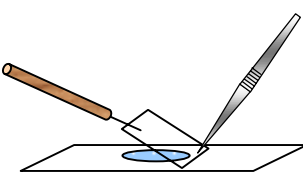
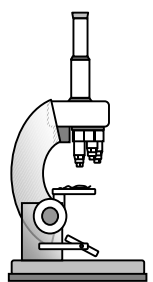
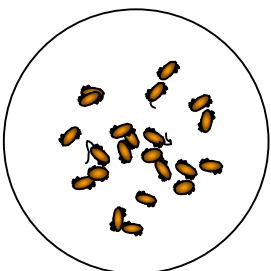
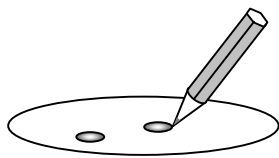


Charlie prepared a microscope slide of the pollen from a lily. The pictures below show the steps he took during the process.

<p>Step 1 <u>Small pool of water</u></p> 	<p>Step 2 <u>Adding some pollen</u></p> 	<p>Step 3 <u>Placing the cover slip</u></p> 
<p>Step 4 <u>Preparing the microscope</u></p> 	<p>Step 5 <u>Viewing the slide</u></p> 	<p>Step 6 <u>Recording observations</u></p> 

Fact File

Pollen is the male reproductive cell in plants. It is found on the stamen.

During reproduction, the pollen nucleus has to be transferred to the ovule of another flower.

The whole pollen grain may be carried to the stigma by insects, birds or the wind.

A pollen tube then grows to the ovary for the pollen nucleus to move through.

Tasks

1. Label the following pieces of apparatus in the pictures. You do not need to repeat labels.

Microscope slide
Cover slip

Dropper
Forceps

Lily
Needle

Stamen
Microscope

Pollen
Sketch

- Write a procedure for preparing the pollen slide for viewing. Use the six steps suggested in the pictures above.
- Draw a sketch of the pollen as it appears under the microscope.
- Some of the pollen grains appear to be growing pollen tubes. Circle one of these grains.
- Outline the part pollen plays in the reproductive cycle of flowering plants. Include details of how it is transferred to the ovule and what happens when it arrives.
- Find a picture of pollen at high magnification (perhaps x400). Sketch one of the pollen grains from the image.

Objectives

In plants, pollen and ovules are specialised cells which enable information to be transferred from one generation to the next.

Checklist for this activity

- Work on the sheet
- Write full answers
- Copy the diagrams

- 1 2 3 4 5 6
- Copy the *Fact File*
- Add your own research