

Introduction

The purpose of this activity is to observe and record the shape, size and surface texture of pollen grains, to show variations between plant species.

Any plants with large flowers are practical for pollen collection and identification. Particularly useful plants include: hibiscus, jasmine, sunflowers, grevillea, and most banksias and acacias.

Equipment

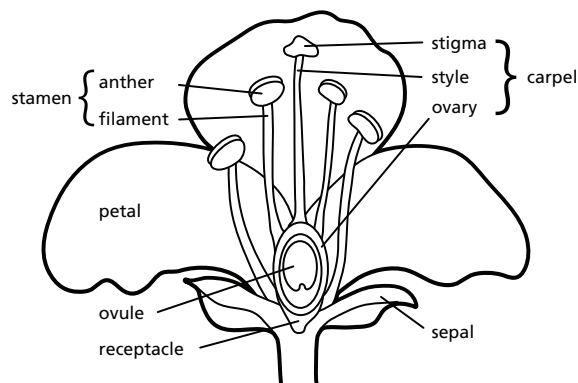
You will need:

compound light microscope
cut flowers
microscope slides and cover-slips
labels for microscope slides
marker for labelling slides
forceps
plastic pipette
vial of water
toothpicks

NB All equipment should be clean and sterile.

Procedure

1. Assemble cut flowers to be sampled.
2. Use the plastic pipette to place 1-2 drops of water in the middle of a clean microscope slide.
3. Use forceps to remove an anther and place it in the water .
4. Use a toothpick to rub the tip of the anther so some pollen comes off in the water.
5. Remove the anther with forceps, and place a cover-slip over the slide that now contains water and pollen.
6. Observe the pollen under the microscope using a x10 lens, then a x40 lens.
7. Label the slide with the flower's name.
8. Repeat the above with different flower types.



Observations

- Describe any modifications you made to the procedure and explain why you did so.
- Use a suitable method to describe features of pollen you observed.
- Discuss in groups, similarities and differences between pollen from different flowers.