

Experiment worksheet

7.10 Plants have tissues and organs

Pages 134–135 and 209

Challenge 7.10A: Locating the stomata of a leaf

What you need

- Clear fingernail polish
- Fresh plant leaf
- Clear sticky tape
- Glass slide
- Microscope

What to do

- 1 Paint a thick patch of clear nail polish in the underside of the leaf and allow to dry.
- 2 Place a piece of the clear sticky tape over the dried nail polish.
- 3 Gently peel the sticky tape off the leaf, removing the nail polish patch from the leaf's surface.
- 4 Tape the peeled section of leaf onto the glass slide.
- 5 Examine the slide under the microscope and locate a stoma (singular of stomata).
- 6 Draw a labelled diagram of the stoma.

Discussion

1 What function do stomata have in a plant?

2 Was the stoma you located open or closed?

3 Refer to the time of day and the location of the plant to explain why the stoma on your plant was open or closed.
