

## Activity 13.9

### To find out which part of a shoot is sensitive to light

#### Skills

A03.1 Using techniques, apparatus and materials

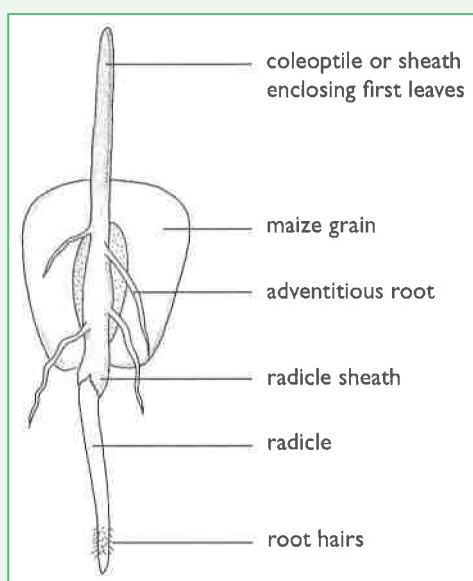
A03.3 Observing, measuring and recording

A03.4 Interpreting and evaluating observations and data

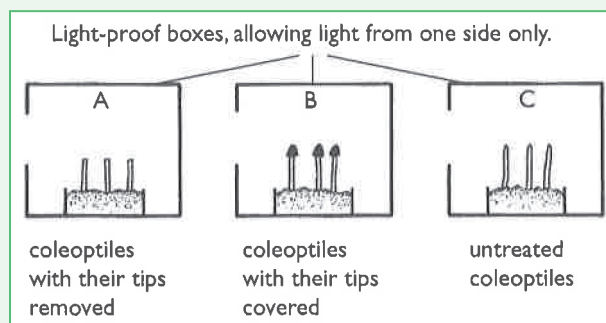
#### Safety

Take care with the scalpel blade.

- 1 Germinate several maize grains in three pots labelled A, B and C. Space the seeds well out from each other. The seeds will grow shoots called coleoptiles.



- 2 Cut the tips from each coleoptile in pot A.
- 3 Cover the tips of each coleoptile in pot B with foil.
- 4 Measure the length of each coleoptile in each pot. Find the mean length of the coleoptiles in each pot and record it.
- 5 Put pots A, B and C into lightproof boxes with light shining from one side, as in the diagram. Leave them for one or two days.



- 6 Find the new mean length, to see whether the coleoptiles have grown or not.
- 7 Draw a results table and record your results fully.

### Questions

- A1 Explain why some coleoptiles grew and some did not.
- A2 Which coleoptiles grew towards the light and which did not? Explain why.