

Photosynthesis in sun and shade

SHEET 1 - OBTAINING YOUR RESULTS

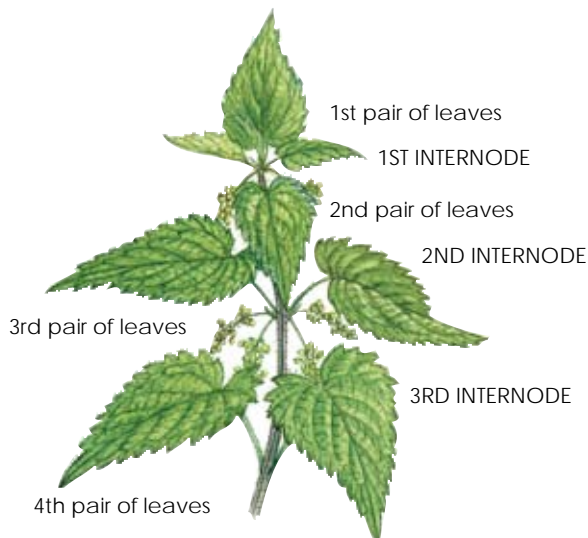
In the field

1. Put a tape measure across the clump of nettles you are investigating running from the shade to the open sunlight.

2. Look at the first half metre of tape in the shade and select the tallest shoot touching the tape.

(a) Measure the length of the 3rd and 4th internodes.

(b) Carefully remove the 4th and 5th pairs of leaves with scissors and put them into a polythene bag (labelled SHADE).



3. Choose the next tallest shoot from the first half metre of the tape and repeat 2 (a) and (b).

4. Take the same measurements from two shoots from the first half metre of the tape in the sun. Label the polythene bag SUN.



In the laboratory

On a piece of 2mm graph paper draw round the photocopy of each leaf shape. Cut out the leaf shape.

Find the mass of the leaf shape.

$$\frac{\text{The mass of the leaf outline}}{\text{The mass of } 1\text{cm}^2 \text{ of graph paper}} = \text{area of the leaf in cm}^2$$