

Investigating Leaf Adaptations

Aim: To observe adaptations in leaves.

Equipment:

- Ruler
- Sample of leaves grown in full sunlight
- Sample of leaves grown in shade
- Calculator (optional)



Safety Information

Plants – possible allergen

Wash hands after handling.

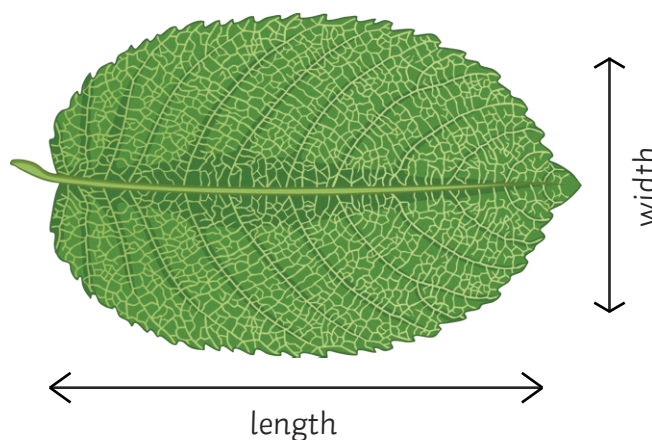
Method:

Step 1: Measure the width and length of each leaf (make sure you know which leaves were grown in the different conditions)

Step 2: Record the results into a suitable table

Step 3: Calculate the area of each leaf (area = length x width)

Step 4: Find the average values for the area of each type of leaf



Questions:

1. What is the function of a leaf?
2. What is the difference between the length of leaves grown in shade and grown in light?
3. What is the difference between the width of leaves grown in shade and grown in light?
4. What is the difference between the area of leaves grown in shade and grown in light?
5. Are your results reliable?
6. What type of data have you collected?

Answers:

1. What is the function of a leaf?

The leaves contain a lot of chlorophyll, which is a green pigment that absorbs sunlight for the process of photosynthesis.

2. What is the difference between the length of leaves grown in shade and grown in light?

You would expect the leaves grown in shade to be longer.

3. What is the difference between the width of leaves grown in shade and grown in light?

You would expect the leaves grown in shade to be wider.

4. What is the difference between the area of leaves grown in shade and grown in light?

You would expect the leaves grown in shade to be larger.

5. Are your results reliable?

Answers may vary. This is a reasonable sample size as it provides a good range to take an average, without being so large a sample size that it takes too long to collect data.

6. What type of data have you collected?

Continuous data