BIOLOGY YEAR 11 - MODULE 2 - LESSON 7

Plant Structure — Macroscopic and Microscopic

Use this worksheet after reading the lesson to practise the key ideas and prove you can meet the success criteria.

Name _____

Date _____

Class _____

1. Key Ideas

From the root tip underground to the leaf canopy above — how the structural organisation of a plant at every scale is precisely engineered to support photosynthesis, gas exchange, and transport.

- Describe the external structure of a flowering plant
- Investigate the structure of autotrophs — dissected plant materials

2. Success Criteria

By the end, you should be able to:

- Describe the external structure of a flowering plant
- Explain the function of roots, stems, leaves, and flowers
- Describe the internal anatomy of a leaf at the microscopic level

3. Key Terms

Casparian strip
a frequently tested feature

plant at every scale
precisely engineered to support photosynthesis, gas exchange, and transport

you think leaves
broad and flat rather than round and thick? And how do you think water gets from the roots all the way up to the leaves?

section
one of the most frequently tested plant biology skills

understand how microscopy
used to investigate plant structures

the macroscopic level
structurally adapted to perform specific functions that support the plant's autotrophic lifestyle — capturing light, abs

4. Activity: Build the Lesson Map

Use the lesson to complete the table. Keep answers brief but specific.

Prompt	Your answer
Main concept	
Important example	
Common mistake to avoid	
How this links to the next lesson	

5. Short Answer Questions

1. Explain this lesson goal in your own words: "Describe the external structure of a flowering plant". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "Explain the function of roots, stems, leaves, and flowers". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Plant Structure — Macroscopic and Microscopic: "Describe the internal anatomy of a leaf at the microscopic level".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Plant Structure — Macroscopic and Microscopic but does not use evidence or reasoning.

Improve the answer by writing a stronger response that uses accurate terminology, a relevant example and a clear explanation.

7. Multiple Choice

1. What is the best first step when answering a question about Plant Structure — Macroscopic and Microscopic?

☐ A. Identify the key concept being tested

☐ B. Write every fact from memory

☐ C. Ignore the command word

☐ D. Skip examples and evidence

2. Which answer would show stronger understanding of Plant Structure — Macroscopic and Microscopic?

☐ A. An answer with accurate terms and reasoning

☐ B. A copied definition only

☐ C. A single-word response

☐ D. An answer with no example

3. What should you do if a question asks you to explain?

☐ A. Link the idea to a reason or cause

☐ B. List unrelated facts

☐ C. Only draw a diagram

☐ D. Write the shortest possible answer

8. Success Criteria Proof

Finish with evidence that you can do each success criterion.

SUCCESS CRITERION 1

Prove that you can: Describe the external structure of a flowering plant

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: Explain the function of roots, stems, leaves, and flowers

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: Describe the internal anatomy of a leaf at the microscopic level

BAND 5 4 MARKS

One thing I still need help with: