

Abiotic Factors — The Physical and Chemical Environment

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

Drive through the Snowy Mountains and you will see a sharp line where snow gums stop and alpine herbfields begin. That line is not drawn by competition or predation — it is drawn by temperature, wind and soil. Understanding how non-living factors shape where organisms can survive is the foundation of distribution ecology.

- Key facts and terms for Abiotic Factors — The Physical and Chemical Environment
- How the main ideas in Abiotic Factors — The Physical and Chemical Environment connect

2. Success Criteria

By the end, you should be able to:

- Key facts and terms for Abiotic Factors — The Physical and Chemical Environment
- Where this lesson fits in Module 4
- How the main ideas in Abiotic Factors — The Physical and Chemical Environment connect

3. Key Terms

Key idea

The central concept from Abiotic Factors — The Physical and Chemical Environment.

Evidence

Information, observations or calculations used to support an answer.

Explain

Give a reasoned answer that links cause and effect.

Apply

Use a learned idea in a new example, problem or scenario.

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. Q1. The snow gum (*Eucalyptus pauciflora*) grows up to exactly 1,800 m elevation in the Snowy Mountains but no higher. What non-living factor(s) do you think prevent it from growing above this line? How would you test your prediction?

BAND 3

3 MARKS

2. Q2. If the average temperature in the Snowy Mountains increased by 2 degrees Celsius over the next 50 years, predict what would happen to the distribution of snow gums. Would the treeline move up, down or stay the same? Explain your reasoning.

BAND 4

3 MARKS

6. Extend: Apply the Idea

BAND 5/6

5 MARKS

A student gives a memorised answer about Abiotic Factors — The Physical and Chemical Environment 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 Abiotic Factors — The Physical and Chemical Environment?

- 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 Abiotic Factors — The Physical and Chemical Environment?

- 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: Key facts and terms for Abiotic Factors — The Physical and Chemical Environment

BAND 3 **2 MARKS**

SUCCESS CRITERION 2

Prove that you can: Where this lesson fits in Module 4

BAND 4 **3 MARKS**

SUCCESS CRITERION 3

Prove that you can: How the main ideas in Abiotic Factors — The Physical and Chemical Environment connect

BAND 5 **4 MARKS**

One thing I still need help with:
