BIOLOGY YEAR 12 - MODULE 7 - LESSON 9

Physical and Chemical Responses in Animals

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

Fever feels terrible. Inflammation hurts. Pus is unpleasant. But every one of these responses is your body doing exactly what it should — a coordinated, biochemical assault on invading pathogens, running automatically the moment a barrier is breached.

- Physical barriers that prevent pathogen entry in animals
- Why inflammation is an adaptive response, not just a symptom

2. Success Criteria

By the end, you should be able to:

- Physical barriers that prevent pathogen entry in animals
- The four cardinal signs of inflammation and their causes
- The role of fever as a chemical defence

3. Key Terms

one of these responses
your body doing exactly what it should — a coordinated, biochemical assault on invading pathogens, running automatically

predict what
actually happening at the cellular level to cause each of these four signs — redness, swelling, warmth, and pain

Why inflammation
an adaptive response, not just a symptom

Why fever
beneficial within a range but dangerous if excessive

Homeostasis
the body stays exactly the same all the time

These
the body's equivalent of the castle walls from L08

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: "Physical barriers that prevent pathogen entry in animals". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "The four cardinal signs of inflammation and their causes". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Physical and Chemical Responses in Animals: "The role of fever as a chemical defence".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Physical and Chemical Responses in Animals 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 Physical and Chemical Responses in Animals?

☐ 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 Physical and Chemical Responses in Animals?

☐ 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: Physical barriers that prevent pathogen entry in animals

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: The four cardinal signs of inflammation and their causes

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: The role of fever as a chemical defence

BAND 5 4 MARKS

One thing I still need help with: