

Adaptive Immunity — Antigens and Antibodies

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

A lock has one key. Your immune system has a different B cell for every possible pathogen — billions of different locks, each waiting for its matching key. When the right one arrives, that B cell multiplies into an army and floods the body with its specific antibody. This is humoral immunity.

- What an antigen is and where antigens are found
- Why clonal selection is the key to specificity in adaptive immunity

2. Success Criteria

By the end, you should be able to:

- What an antigen is and where antigens are found
- The structure and function of antibodies
- Clonal selection and clonal expansion

3. Key Terms

antigen

any molecule that can be recognised by the adaptive immune system and trigger a specific immune response

This

humoral immunity

what do you think

preventing you from getting chickenpox a second time? Where is the "memory" stored, and how does it work fast enough to

What an antigen

and where antigens are found

Why clonal selection

the key to specificity in adaptive immunity

Why the secondary response

faster and stronger

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: "What an antigen is and where antigens are found". Use one specific example from the lesson.

BAND 3 **2 MARKS**

2. Apply this idea to a new example: "The structure and function of antibodies". Show your reasoning clearly.

BAND 4 **3 MARKS**

3. Analyse why this idea matters for understanding Adaptive Immunity — Antigens and Antibodies: "Clonal selection and clonal expansion".

BAND 5 **4 MARKS**

6. Extend: Apply the Idea

BAND 5/6

5 MARKS

A student gives a memorised answer about Adaptive Immunity — Antigens and Antibodies 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 Adaptive Immunity — Antigens and Antibodies?

- 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 Adaptive Immunity — Antigens and Antibodies?

- 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: What an antigen is and where antigens are found

BAND 3

2 MARKS

SUCCESS CRITERION 2

Prove that you can: The structure and function of antibodies

BAND 4

3 MARKS

SUCCESS CRITERION 3

Prove that you can: Clonal selection and clonal expansion

BAND 5

4 MARKS

One thing I still need help with:
