

Vaccination — Active and Passive Immunity

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

In 1955, Jonas Salk announced a working polio vaccine. Within two years, polio cases in the US dropped by 85–90%. A disease that had paralysed hundreds of thousands of children per year — including a future US president — was being dismantled by a syringe. This lesson is about how that is possible, and why it sometimes isn't.

- The distinction between active and passive immunity
- Why herd immunity protects those who cannot be vaccinated

2. Success Criteria

By the end, you should be able to:

- The distinction between active and passive immunity
- Natural vs artificial forms of each
- How herd immunity works and the thresholds for common diseases

3. Key Terms

This lesson

about how that is possible, and why it sometimes isn't

Natural selection

organisms change because they want or need to

Understanding this framework

essential for the HSC — exam questions frequently test whether students can correctly classify a given scenario

antibodies

already present

population

immune to a pathogen, transmission chains break — even susceptible (unvaccinated or uninfected) individuals are protected

Susceptible individuals

protected without being vaccinated themselves

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: "The distinction between active and passive immunity". Use one specific example from the lesson.

BAND 3 **2 MARKS**

2. Apply this idea to a new example: "Natural vs artificial forms of each". Show your reasoning clearly.

BAND 4 **3 MARKS**

3. Analyse why this idea matters for understanding Vaccination — Active and Passive Immunity: "How herd immunity works and the thresholds for common diseases".

BAND 5 **4 MARKS**

6. Extend: Apply the Idea

BAND 5/6

5 MARKS

A student gives a memorised answer about Vaccination — Active and Passive Immunity 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 Vaccination — Active and Passive Immunity?

- 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 Vaccination — Active and Passive Immunity?

- 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: The distinction between active and passive immunity

BAND 3

2 MARKS

SUCCESS CRITERION 2

Prove that you can: Natural vs artificial forms of each

BAND 4

3 MARKS

SUCCESS CRITERION 3

Prove that you can: How herd immunity works and the thresholds for common diseases

BAND 5

4 MARKS

One thing I still need help with:
