

Atomic Number and Mass Number

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

This lesson turns particle knowledge into number patterns: atomic number, mass number and the idea of a neutral atom.

- atomic number counts protons
- proton number identifies the element

2. Success Criteria

By the end, you should be able to:

- atomic number counts protons
- mass number counts protons and neutrons
- neutral atoms have equal protons and electrons

3. Key Terms

Key idea

The central concept from Atomic Number and Mass Number.

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. Explain this lesson goal in your own words: "atomic number counts protons". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "mass number counts protons and neutrons". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Atomic Number and Mass Number: "neutral atoms have equal protons and electrons".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Atomic Number and Mass Number because I memorised the definition."

Explain why memorising a definition is not enough. Use an example from the lesson to show deeper understanding.

7. Multiple Choice

1. What is the best first step when answering a question about Atomic Number and Mass Number?

- 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 Atomic Number and Mass Number?

- 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: atomic number counts protons

SUCCESS CRITERION 2

Prove that you can: mass number counts protons and neutrons

SUCCESS CRITERION 3

Prove that you can: neutral atoms have equal protons and electrons

One thing I still need help with:
