

Elements, Compounds and Mixtures Revisited Through Particles

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

Students often memorise the three words element, compound and mixture without really seeing why they are different. This lesson rebuilds those categories using particle diagrams so classification becomes something students can explain, not just recall.

- elements, compounds and mixtures have different particle patterns
- a compound is one substance made from different elements joined together

2. Success Criteria

By the end, you should be able to:

- elements, compounds and mixtures have different particle patterns
- compounds and mixtures are not the same thing
- particle diagrams are models used to explain matter

3. Key Terms

Element

A pure substance made of one type of atom only.

Compound

A pure substance made when atoms of different elements are chemically joined.

Mixture

Two or more substances physically combined, not chemically joined into one new substance.

Particle diagram

A model that uses simple shapes to show how particles are arranged.

Pure substance

A sample made of one kind of substance only.

Chemically joined

Particles are linked in a way that represents one substance, not just a physical mix.

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: "elements, compounds and mixtures have different particle patterns". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "compounds and mixtures are not the same thing". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Elements, Compounds and Mixtures Revisited Through Particles: "particle diagrams are models used to explain matter".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Elements, Compounds and Mixtures Revisited Through Particles 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 Elements, Compounds and Mixtures Revisited Through Particles?

- 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 Elements, Compounds and Mixtures Revisited Through Particles?

- 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: elements, compounds and mixtures have different particle patterns

SUCCESS CRITERION 2

Prove that you can: compounds and mixtures are not the same thing

SUCCESS CRITERION 3

Prove that you can: particle diagrams are models used to explain matter

One thing I still need help with:
