

Ionic Bonding and Ionic Compounds

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 ion formation into bonding. Students learn that ionic bonding is not just "atoms sticking together" but an electrostatic attraction between oppositely charged ions, and that this structure helps explain why ionic materials have characteristic properties and uses.

- ionic bonding involves electron transfer followed by attraction between opposite charges
- the bond is the attraction, not the transferred electron itself

2. Success Criteria

By the end, you should be able to:

- ionic bonding involves electron transfer followed by attraction between opposite charges
- ionic compounds are made from cations and anions in fixed ratios
- ionic structure helps explain melting point, brittleness and conductivity patterns

3. Key Terms

Ionic bond

The electrostatic attraction between oppositely charged ions.

Ionic compound

A substance made from positive and negative ions held together by ionic bonds.

Electron transfer

Movement of one or more electrons from one atom to another during ion formation.

Electrostatic attraction

Attraction between opposite charges.

Lattice

A repeating arrangement of ions in a solid ionic substance.

Formula unit

The simplest ratio of ions in an ionic compound, such as NaCl or MgO.

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: "ionic bonding involves electron transfer followed by attraction between opposite charges". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "ionic compounds are made from cations and anions in fixed ratios". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Ionic Bonding and Ionic Compounds: "ionic structure helps explain melting point, brittleness and conductivity patterns".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Ionic Bonding and Ionic Compounds 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 Ionic Bonding and Ionic Compounds?

- 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 Ionic Bonding and Ionic Compounds?

- 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: ionic bonding involves electron transfer followed by attraction between opposite charges

SUCCESS CRITERION 2

Prove that you can: ionic compounds are made from cations and anions in fixed ratios

SUCCESS CRITERION 3

Prove that you can: ionic structure helps explain melting point, brittleness and conductivity patterns

One thing I still need help with:
