

Acid-Base & Acid-Carbonate Reactions

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

Every time you take an antacid tablet for heartburn, you're triggering an acid-base reaction in your stomach — and the salt it produces determines whether the treatment works or makes things worse. The chemistry of neutralisation is in your medicine cabinet.

- The products of acid-base neutralisation (salt + water)
- How to identify the salt from an acid-base reaction before balancing

2. Success Criteria

By the end, you should be able to:

- The products of acid-base neutralisation (salt + water)
- The products of acid-carbonate reactions (salt + water + CO₂)
- Which acid produces which anion in the salt

3. Key Terms

acid

A substance that donates protons (H⁺) or accepts electron pairs, according to context.

base

A substance that accepts protons (H⁺) or donates electron pairs, according to context.

soluble base

A substance that accepts protons (H⁺) or donates electron pairs, according to context.

alkali

Alkali vs base: NaOH and KOH are alkalis (soluble bases).

Common bases

A substance that accepts protons (H⁺) or donates electron pairs, according to context.

Synthesis reaction

A reaction where two or more reactants combine to form a single product.

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 products of acid-base neutralisation (salt + water)". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "The products of acid-carbonate reactions (salt + water + CO₂)". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Acid-Base & Acid-Carbonate Reactions: "Which acid produces which anion in the salt".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6

5 MARKS

A student gives a memorised answer about Acid-Base & Acid-Carbonate Reactions 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 Acid-Base & Acid-Carbonate Reactions?

- 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 Acid-Base & Acid-Carbonate Reactions?

- 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 products of acid-base neutralisation (salt + water)

BAND 3 **2 MARKS**

SUCCESS CRITERION 2

Prove that you can: The products of acid-carbonate reactions (salt + water + CO₂)

BAND 4 **3 MARKS**

SUCCESS CRITERION 3

Prove that you can: Which acid produces which anion in the salt

BAND 5 **4 MARKS**

One thing I still need help with:
