CHEMISTRY YEAR 11 - MODULE 3 - LESSON 8

Redox Reactions & Oxidation States

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

The bleach under your sink works by ripping electrons from the molecules in stains and bacteria — oxidation doesn’t require oxygen at all, and understanding why changes everything about how you read a chemical equation.

- Key facts and terms for Redox Reactions & Oxidation States
- How the main ideas in Redox Reactions & Oxidation States connect

2. Success Criteria

By the end, you should be able to:

- Key facts and terms for Redox Reactions & Oxidation States
- Where this lesson fits in Module 3
- How the main ideas in Redox Reactions & Oxidation States connect

3. Key Terms

OIL RIG
If this feels backwards, it is — commit OIL RIG and the oxidant/reductant definitions to memory as a pair.

redox reaction
A reaction involving the transfer of electrons between chemical species.

reductant
Oxidised — these relationships feel counterintuitive and must be memorised precisely.

oxidant
Reduced; the reductant is oxidised — these relationships feel counterintuitive and must be memorised precisely.

oxidised
The species that is oxidised (loses electrons) is called the reductant — it provides electrons to the other species.

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: "Key facts and terms for Redox Reactions & Oxidation States". Use one specific example from the lesson.

BAND 3 2 MARKS

2. Apply this idea to a new example: "Where this lesson fits in Module 3". Show your reasoning clearly.

BAND 4 3 MARKS

3. Analyse why this idea matters for understanding Redox Reactions & Oxidation States: "How the main ideas in Redox Reactions & Oxidation States connect".

BAND 5 4 MARKS

6. Extend: Apply the Idea

BAND 5/6 5 MARKS

A student gives a memorised answer about Redox Reactions & Oxidation States 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 Redox Reactions & Oxidation States?

☐ 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 Redox Reactions & Oxidation States?

☐ 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: Key facts and terms for Redox Reactions & Oxidation States

BAND 3 2 MARKS

SUCCESS CRITERION 2

Prove that you can: Where this lesson fits in Module 3

BAND 4 3 MARKS

SUCCESS CRITERION 3

Prove that you can: How the main ideas in Redox Reactions & Oxidation States connect

BAND 5 4 MARKS

One thing I still need help with: