

Galvanic Cells & Inert Electrodes & Predicting 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

Zinc blocks bolted to the hulls of ships and offshore pipelines corrode slowly in seawater so that the steel structure around them doesn't — this is cathodic protection, applied galvanic cell chemistry saving billions in infrastructure every year.

- Key facts and terms for Galvanic Cells & Inert Electrodes & Predicting Reactions
- How the main ideas in Galvanic Cells & Inert Electrodes & Predicting Reactions connect

2. Success Criteria

By the end, you should be able to:

- Key facts and terms for Galvanic Cells & Inert Electrodes & Predicting Reactions
- Where this lesson fits in Module 3
- How the main ideas in Galvanic Cells & Inert Electrodes & Predicting Reactions connect

3. Key Terms

inert electrode

And when one is needed
($\text{Fe}^{2+}/\text{Fe}^{3+}$,
 $\text{Cl}^{-}/\text{Cl}_2$, gas phase half-reactions).

Synthesis reaction

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

Decomposition reaction

A reaction where a single compound breaks down into simpler substances.

Precipitation reaction

A reaction in which an insoluble solid forms when two solutions are mixed.

Combustion reaction

A rapid reaction with oxygen producing heat, light and oxides.

Redox reaction

A reaction involving electron transfer between chemical species.

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 Galvanic Cells & Inert Electrodes & Predicting Reactions". 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 Galvanic Cells & Inert Electrodes & Predicting Reactions: "How the main ideas in Galvanic Cells & Inert Electrodes & Predicting Reactions connect".

BAND 5 **4 MARKS**

6. Extend: Apply the Idea

BAND 5/6

5 MARKS

A student gives a memorised answer about Galvanic Cells & Inert Electrodes & Predicting 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 Galvanic Cells & Inert Electrodes & Predicting 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 Galvanic Cells & Inert Electrodes & Predicting 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: Key facts and terms for Galvanic Cells — Inert Electrodes & Predicting Reactions

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 Galvanic Cells — Inert Electrodes & Predicting Reactions connect

BAND 5 **4 MARKS**

One thing I still need help with:
