SCIENCE YEAR 8 - UNIT 2 - LESSON 19

Scientific Discoveries That Changed Uses of Substances

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 connects chemistry knowledge to history and society by showing that discoveries can change how substances are used.

- scientific discoveries can change substance uses
- uses can change over time as knowledge improves

2. Success Criteria

By the end, you should be able to:

- scientific discoveries can change substance uses
- understanding properties influences mining, medicine, electronics and materials
- science and society are connected

3. Key Terms

Key idea
The central concept from Scientific Discoveries That Changed Uses of Substances.

Evidence
Information, observations or calculations used to support an answer.

Explain
Give a reasoned answer that links cause and effect.

Apply
Use a learned idea in a new example, problem or scenario.

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: "scientific discoveries can change substance uses". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "understanding properties influences mining, medicine, electronics and materials". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Scientific Discoveries That Changed Uses of Substances: "science and society are connected".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Scientific Discoveries That Changed Uses of Substances 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 Scientific Discoveries That Changed Uses of Substances?

☐ 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 Scientific Discoveries That Changed Uses of Substances?

☐ 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: scientific discoveries can change substance uses

SUCCESS CRITERION 2

Prove that you can: understanding properties influences mining, medicine, electronics and materials

SUCCESS CRITERION 3

Prove that you can: science and society are connected

One thing I still need help with: