SCIENCE YEAR 9 - UNIT 2 - LESSON 4

Materials, Minerals and Finite Resources

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

Materials do not appear from nowhere. Many come from minerals, crude oil and other natural resources, and many of those resources are finite. This lesson keeps the focus on materials by asking how source and extraction affect the way materials should be assessed.

- many useful materials come from minerals, crude oil and other natural resources
- a good material choice is not only about performance

2. Success Criteria

By the end, you should be able to:

- many useful materials come from minerals, crude oil and other natural resources
- many extracted resources are finite
- source and extraction can matter in material assessment

3. Key Terms

Resource
A material or energy source obtained from the natural world and used by people.

Mineral
A naturally occurring inorganic substance with a definite composition and structure.

Ore
A rock or mineral deposit from which a useful material, often a metal, can be extracted.

Extraction
The process of removing or obtaining a useful resource from the Earth.

Finite resource
A resource that exists in limited amounts and is not replaced quickly on human timescales.

Environmental impact
The effect a process or material has on the natural world.

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: "many useful materials come from minerals, crude oil and other natural resources". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "many extracted resources are finite". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Materials, Minerals and Finite Resources: "source and extraction can matter in material assessment".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Materials, Minerals and Finite Resources 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 Materials, Minerals and Finite Resources?

☐ 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 Materials, Minerals and Finite Resources?

☐ 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: many useful materials come from minerals, crude oil and other natural resources

SUCCESS CRITERION 2

Prove that you can: many extracted resources are finite

SUCCESS CRITERION 3

Prove that you can: source and extraction can matter in material assessment

One thing I still need help with: