

Microplastics, Bioaccumulation and Environmental Impact

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 extends the materials unit from short-term usefulness into long-term environmental consequence. The key Stage 5 move is linking material choice to what happens after use, especially when small plastic fragments enter ecosystems and food webs.

- what microplastics are and how they can form
- small particles can still matter because they persist, spread and are taken up by organisms

2. Success Criteria

By the end, you should be able to:

- what microplastics are and how they can form
- what bioaccumulation means at Stage 5 level
- that material choices can have effects long after a product has been used

3. Key Terms

Microplastics

Very small plastic particles formed when larger plastics are made small or break down into fragments.

Bioaccumulation

The build-up of a substance in an organism over time when it is taken in faster than it is removed.

Persistence

The ability of a material or pollutant to remain in the environment for a long time.

Food web

The network of feeding relationships that shows how energy and matter move through an ecosystem.

Secondary-source evidence

Information gathered from published reports, studies, data tables or case studies rather than from a direct practical investigation.

Long-term consequence

An effect that may continue or spread well after a material has been used and discarded.

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: "what microplastics are and how they can form". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "what bioaccumulation means at Stage 5 level". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Microplastics, Bioaccumulation and Environmental Impact: "that material choices can have effects long after a product has been used".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Microplastics, Bioaccumulation and Environmental Impact 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 Microplastics, Bioaccumulation and Environmental Impact?

- 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 Microplastics, Bioaccumulation and Environmental Impact?

- 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: what microplastics are and how they can form

SUCCESS CRITERION 2

Prove that you can: what bioaccumulation means at Stage 5 level

SUCCESS CRITERION 3

Prove that you can: that material choices can have effects long after a product has been used

One thing I still need help with:
