SCIENCE YEAR 8 - UNIT 1 - LESSON 15

What Happens When One Component Fails?

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

Living systems depend on interacting parts. When one component is damaged, blocked or not working properly, the effect can spread through the wider system. This lesson uses Stage 4 case studies to explain those knock-on effects clearly.

- living systems depend on interacting components
- the effect is often indirect, not just local

2. Success Criteria

By the end, you should be able to:

- living systems depend on interacting components
- damage to one part can affect wider function
- both plant and animal examples can show system disruption

3. Key Terms

Component
A part of a living system with a specific role.

Disruption
A problem or change that affects normal system function.

Interaction
The way different parts affect one another.

System effect
A wider impact caused by change in one component.

Cause and effect
Reasoning that links one change to the result it produces.

Case study
A specific example used to explain a broader idea.

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: "living systems depend on interacting components". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "damage to one part can affect wider function". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding What Happens When One Component Fails?: "both plant and animal examples can show system disruption".

REASONING

6. Extend: Apply the Idea

A student says, "I understand What Happens When One Component Fails? 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 What Happens When One Component Fails??

☐ 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 What Happens When One Component Fails??

☐ 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: living systems depend on interacting components

SUCCESS CRITERION 2

Prove that you can: damage to one part can affect wider function

SUCCESS CRITERION 3

Prove that you can: both plant and animal examples can show system disruption

One thing I still need help with: