SCIENCE YEAR 8 - UNIT 1 - LESSON 17

System Interactions That Support Homeostasis

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

Stable internal conditions are not maintained by one system alone. This lesson shows how respiration, circulation, digestion and waste removal interact so that living things can keep functioning effectively.

- multiple systems contribute to stable internal conditions
- one system often supplies what another system needs to move or use

2. Success Criteria

By the end, you should be able to:

- multiple systems contribute to stable internal conditions
- respiration, circulation, digestion and waste removal are connected
- homeostasis depends on interaction, not isolation

3. Key Terms

Interaction
The way systems or components work together and affect one another.

Respiratory system
The system involved in gas exchange with the environment.

Circulatory system
The system that transports substances around the body.

Digestive system
The system that helps obtain and process nutrients from food.

Waste removal
Processes that remove unwanted products from the body.

Stable internal conditions
Internal conditions kept within a suitable range for effective function.

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: "multiple systems contribute to stable internal conditions". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "respiration, circulation, digestion and waste removal are connected". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding System Interactions That Support Homeostasis: "homeostasis depends on interaction, not isolation".

REASONING

6. Extend: Apply the Idea

A student says, "I understand System Interactions That Support Homeostasis 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 System Interactions That Support Homeostasis?

☐ 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 System Interactions That Support Homeostasis?

☐ 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: multiple systems contribute to stable internal conditions

SUCCESS CRITERION 2

Prove that you can: respiration, circulation, digestion and waste removal are connected

SUCCESS CRITERION 3

Prove that you can: homeostasis depends on interaction, not isolation

One thing I still need help with: