

Final Living Systems Synthesis and Depth Study Preparation

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 brings the whole unit together. You will combine organisation, transport, exchange, disruption, homeostasis and evidence-based reasoning to solve living-systems problems and prepare for the final checkpoint and unit quiz.

- the unit connects organisation, transport, exchange, disruption, homeostasis and evidence
- living-systems problems can be solved by linking structure, role, function and effect

2. Success Criteria

By the end, you should be able to:

- the unit connects organisation, transport, exchange, disruption, homeostasis and evidence
- strong full-unit answers combine several ideas rather than repeating one fact
- problem solving in biology requires explicit reasoning

3. Key Terms

Synthesis

Bringing several ideas together into one stronger explanation.

Living system

An organised set of interacting parts that support survival.

Homeostasis

Keeping important internal conditions within a suitable range.

Disruption

A problem or change that affects normal system function.

Evidence

Information used to support a scientific explanation or conclusion.

Reasoning

The logical links between evidence and a scientific claim.

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: "the unit connects organisation, transport, exchange, disruption, homeostasis and evidence". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "strong full-unit answers combine several ideas rather than repeating one fact". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Final Living Systems Synthesis and Depth Study Preparation: "problem solving in biology requires explicit reasoning".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Final Living Systems Synthesis and Depth Study Preparation 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 Final Living Systems Synthesis and Depth Study Preparation?

- 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 Final Living Systems Synthesis and Depth Study Preparation?

- 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: the unit connects organisation, transport, exchange, disruption, homeostasis and evidence

SUCCESS CRITERION 2

Prove that you can: strong full-unit answers combine several ideas rather than repeating one fact

SUCCESS CRITERION 3

Prove that you can: problem solving in biology requires explicit reasoning

One thing I still need help with:
