SCIENCE YEAR 8 - UNIT 1 - LESSON 22

Food Webs and Energy Flow

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

Every living thing needs energy. But energy does not appear from nowhere — it travels through ecosystems in predictable patterns. This lesson explains how food chains, food webs and energy pyramids show where energy goes and why most of it never reaches the top.

- food chains show the flow of energy from one organism to another
- the arrow in a food chain shows the direction of energy flow

2. Success Criteria

By the end, you should be able to:

- food chains show the flow of energy from one organism to another
- food webs are made of many connected food chains
- energy pyramids show that energy is lost at each level

3. Key Terms

Food chain
A simple model showing how energy moves from one organism to another through feeding.

Food web
A network of interconnected food chains showing the many feeding relationships in an ecosystem.

Trophic level
The position an organism occupies in a food chain, such as producer, primary consumer or secondary consumer.

Producer
An organism that makes its own food using sunlight, forming the first trophic level.

Primary consumer
An organism that eats producers; usually a herbivore.

Energy pyramid
A diagram showing how energy decreases at each trophic level in an ecosystem.

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: "food chains show the flow of energy from one organism to another". Use one specific example from the lesson.

CORE

2. Apply this idea to a new example: "food webs are made of many connected food chains". Show your reasoning clearly.

CORE

3. Analyse why this idea matters for understanding Food Webs and Energy Flow: "energy pyramids show that energy is lost at each level".

REASONING

6. Extend: Apply the Idea

A student says, "I understand Food Webs and Energy Flow 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 Food Webs and Energy Flow?

☐ 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 Food Webs and Energy Flow?

☐ 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: food chains show the flow of energy from one organism to another

SUCCESS CRITERION 2

Prove that you can: food webs are made of many connected food chains

SUCCESS CRITERION 3

Prove that you can: energy pyramids show that energy is lost at each level

One thing I still need help with: