

Ecosystems

KS3 Biology · Follows the national curriculum

Name _____ Class _____ Date _____

1. Worked example

Write one food chain from the web and name each trophic level.

Step 1 · Pick a path

Grass → grasshopper → thrush → sparrowhawk.

Step 2 · Name the levels

Grass = producer; grasshopper = primary consumer; thrush = secondary consumer; sparrowhawk = tertiary consumer.

Answer: Grass → grasshopper → thrush → sparrowhawk

Check: Arrows show energy flowing from food to feeder.

2. Now try one with the steps

What do decomposers do, and why are they important?

Step 1 · Who they are

Step 2 · What they do

Step 3 · Why it matters

Answer:

3. Practice

Show your working. The marks tell you how much is expected.

1. What is a producer? [1]

2. What does an arrow in a food chain show? [1]

3. In grass → rabbit → fox, what is the rabbit? [1]

4. What is a food web? [1]
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5. Name TWO types of decomposer. [2]
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6. What is a top predator? [1]
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7. What does 'interdependence' mean? [1]
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8. In a web, foxes eat rabbits and thrushes; thrushes eat grasshoppers; rabbits and grasshoppers eat grass. Which organism eats both a primary and a secondary consumer? [1]
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9. If thrushes were removed, what would happen to grasshoppers? Explain. [2]
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10. Why are there usually fewer top predators than herbivores? [2]
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11. A producer has 5000 kJ. About how much energy reaches the primary consumer, in kJ, if 10% is passed on? [1]
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12. Give TWO ways energy is lost between trophic levels. [2]
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13. Grey squirrels were introduced to Britain from North America. Suggest how they caused red squirrel numbers to fall. [2]
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14. Explain why a food web with many species is more stable than a single food chain. [2]
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4. Before you hand it in

Drawing arrows from the eater to the food (fox → rabbit).

Arrows point from the food to the feeder: rabbit → fox.

Saying 'the fox will die' when rabbits decrease.

Say the fox POPULATION may fall, or foxes may eat more of another prey, and explain the knock-on effect.

"Exactly 10% of energy passes on every time."

Typically between about 2% and 20% passes on; '10%' is a useful rule of thumb.