Meadow Energy Trail

Follow food and energy through a meadow

L.5.3B.2 "Develop and use a food chain model to classify organisms as producers, consumers, or decomposers. Trace the energy flow to explain how each group of organisms obtains energy."

NAME _____ DATE _____

1 READ AND MARK

Read it twice

YOUR JOB Underline the organism that makes its own food, circle the animals that eat other organisms, and box the organisms that break down dead matter. Number the grass, grasshopper, frog, and snake in the order energy moves through them.

Who Eats Whom in the Meadow?

1. At the edge of a meadow, sunlight reaches a patch of grass. The grass uses light to make sugar, a food that stores energy. A grasshopper bites off a blade and eats it. In a food chain, an arrow points from a food source to the organism that eats it. The arrow shows the direction energy moves, not the direction an animal travels.

2. A frog waits near the grass. When the grasshopper lands, the frog catches and eats it. Later, a snake swallows the frog. The frog gets energy from the grasshopper, and the snake gets energy from the frog. A producer makes its own food with light. Consumers get energy by eating plants or other animals. These feeding steps connect the grass to the snake, even though the snake never eats grass.

3. Not every part of the meadow is eaten by a living animal. Fallen grass blades and the body of a dead frog can become food for fungi and bacteria in the soil. These organisms get energy by breaking down dead matter. They are called decomposers. The process releases nutrients into the soil, which grass can use to grow. Nutrients return to the grass, but energy does not cycle back.

2 ANSWER WITH EVIDENCE

Use the passage

1. Write a four-organism food chain from the passage. What does each arrow show?

2. Which organism in your chain is a producer? Explain where the energy in its food comes from.

3. Which three organisms in your chain are consumers? Tell what each eats to get energy.

4. How could energy move from this chain to fungi or bacteria? Explain what they break down.

3 YOUR TURN

Your own words

Create a different food chain with a plant and two animals you know. Use arrows to show energy moving from the Sun through the chain, label the producer and both consumers, then name a decomposer and explain how it could get energy from your chain.

ANSWER KEY

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GRADE 5 · L.5.3B.2

PART 1 · READ AND MARK

Underline the organism that makes its own food, circle the animals that eat other organisms, and box the organisms that break down dead matter. Number the grass, grasshopper, frog, and snake in the order energy moves through them. Accept any marking that follows this job and points at the right text.

PART 2 · ANSWERS

#	QUESTION	ANSWER
1	Write a four-organism food chain from the passage. What does each arrow show?	**Grass → grasshopper → frog → snake. Each arrow shows energy moving from food to the organism that eats it.**
2	Which organism in your chain is a producer? Explain where the energy in its food comes from.	**Grass is the producer. It uses energy from sunlight to make sugar.**
3	Which three organisms in your chain are consumers? Tell what each eats to get energy.	**The grasshopper eats grass, the frog eats the grasshopper, and the snake eats the frog.**
4	How could energy move from this chain to fungi or bacteria? Explain what they break down.	**Energy could move from dead grass or a dead frog to fungi or bacteria. They get energy by breaking down that dead matter.**

PART 3 · YOUR TURN (SAMPLE ANSWER)

Sun → oak tree → caterpillar → robin. The oak tree is the producer because it uses sunlight to make food. The caterpillar and robin are consumers. A fungus is a decomposer that could get energy by breaking down dead oak leaves or a dead robin.

Accept other accurate food chains in Part 3 if arrows point in the direction energy moves and each organism is classified correctly. The decomposer must get energy from dead material, not directly from sunlight or soil nutrients.