

Forest Energy Trail

Trace how organisms get energy and recycle nutrients.

S4L1 "Obtain, evaluate, and communicate information about the roles of organisms and the flow of energy within an ecosystem."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each organism. Circle the words that tell its role, then number the five parts of the energy path from the Sun to the snake.

Energy in a Pine Forest

- ① At the edge of a Georgia pine forest, sunlight warms a patch of grass, wildflowers, and young pine trees. These plants are producers. They use energy from sunlight to make their own food. A grasshopper eats grass, and a rabbit nibbles wildflowers. These animals are consumers because they get energy by eating plants or other animals.
- ② A frog may eat the grasshopper, and a snake may eat the frog. Energy moves from the Sun to plants, then to the grasshopper, frog, and snake. At each step, the organism uses some energy for moving, growing, and staying alive. Less energy is available to the next organism, so food chains usually have only a few steps.
- ③ When leaves, dead animals, and waste fall to the forest floor, fungi and bacteria break them down. These decomposers return nutrients to the soil. Plant roots can take in those nutrients and use them to grow. A hawk that eats a rabbit gets energy that started with the Sun, while decomposers help keep materials cycling through the ecosystem.

2 ANSWER WITH EVIDENCE _____ Use the passage

1 What is the role of the plants in this forest? Use information from the passage to explain.

2 Write the energy path from the Sun to the snake in the order given in paragraph 2.

3 Why do food chains usually have only a few steps?

4 How do decomposers help the plants in the forest?

3 YOUR TURN _____ Your own words

Create a four-organism food chain from an ecosystem you choose. In the first four rows, name each organism, give its role, and tell where it gets energy. In the last row, add a decomposer from that ecosystem and tell what it breaks down.

ORGANISM	ROLE	GETS ENERGY FROM OR BREAKS DOWN

PART 1 • READ AND MARK

Underline each organism. Circle the words that tell its role, then number the five parts of the energy path from the Sun to the snake. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	What is the role of the plants in this forest? Use information from the passage to explain.	The plants are producers. They use energy from sunlight to make their own food.
2	Write the energy path from the Sun to the snake in the order given in paragraph 2.	Sun → plants → grasshopper → frog → snake.
3	Why do food chains usually have only a few steps?	Each organism uses some energy for moving, growing, and staying alive, so less energy is available to the next organism.
4	How do decomposers help the plants in the forest?	Decomposers break down dead materials and waste, returning nutrients to the soil. Plant roots take in those nutrients to grow.

PART 3 • YOUR TURN (SAMPLE ANSWER)

ORGANISM	ROLE	GETS ENERGY FROM OR BREAKS DOWN
Sunflower	producer	sunlight
Caterpillar	consumer	sunflower
Robin	consumer	caterpillar
Hawk	consumer	robin
Mushroom	decomposer	dead plants and animals

Accept accurate food chains in which energy begins with sunlight, moves to a producer, and then moves through consumers. Accept decomposers that break down dead organisms or waste and return nutrients to the ecosystem.