

Forest Floor Connections

Trace how organisms depend on one another in a forest ecosystem.

LS.5.c "relationships exist among producers, consumers, and decomposers."

NAME _____

DATE _____

1 READ AND MARK _____ Read it twice

YOUR JOB Underline each producer named, circle each consumer named, and box each decomposer named. Then number the organisms in one pathway that starts with a producer, moves through consumers, and ends with a decomposer.

A Maple Forest Food Path

- ① On a sunny edge of a maple forest, a maple tree uses energy from sunlight to make sugars from water and carbon dioxide. This producer stores food in its leaves, seeds, and wood. A caterpillar eats maple leaves, so it is a consumer. A chickadee eats the caterpillar, gaining energy that first entered the food path through the maple tree. Neither animal makes its own food. Both depend, directly or indirectly, on the producer for energy.
- ② When the chickadee drops feathers or dies, its remains become food for decomposers. Mushrooms, which are fungi, and soil bacteria break down the dead material. They use some of it for energy and return mineral nutrients to the soil. The maple tree can take up these nutrients through its roots and use them to grow. Decomposers do not create energy from sunlight, but they connect dead organisms to living producers in the forest.
- ③ Not every relationship is a simple line. A ground beetle is also a consumer because it eats caterpillars and other small animals. If a beetle dies, fungi and bacteria can decompose it, just as they decompose fallen maple leaves and dead chickadees. Energy moves from the maple tree to consumers and is used or lost as heat at each step. In contrast, nutrients cycle because decomposers return them to soil, where producers can use them again.

2 ANSWER WITH EVIDENCE Use the passage

1 How are the maple tree and the caterpillar connected in the food path?

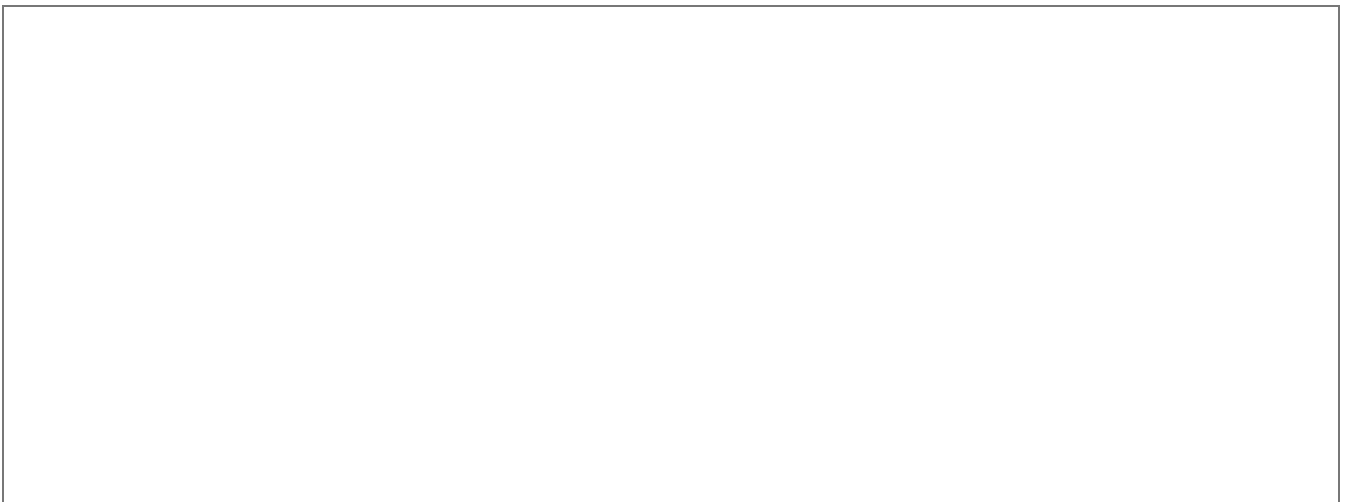
2 Write one pathway from the producer to a decomposer described in the passage.

3 What evidence in the passage shows that a ground beetle is a consumer?

4 How do decomposers connect dead organisms to the maple tree?

3 YOUR TURN Your own words

In an ecosystem of your choice, draw a pathway with one producer, two consumers, and one decomposer. Use arrows to show energy moving from the producer through the consumers, then show nutrients returning from the decomposer to the producer.



PART 1 • READ AND MARK

Underline each producer named, circle each consumer named, and box each decomposer named. Then number the organisms in one pathway that starts with a producer, moves through consumers, and ends with a decomposer. Accept any marking that follows this job and points at the right text.

PART 2 • ANSWERS

#	QUESTION	ANSWER
1	How are the maple tree and the caterpillar connected in the food path?	The maple tree is a producer that makes food. The caterpillar is a consumer that eats the tree's leaves.
2	Write one pathway from the producer to a decomposer described in the passage.	Maple tree → caterpillar → chickadee → mushrooms (fungi), or soil bacteria.
3	What evidence in the passage shows that a ground beetle is a consumer?	A ground beetle is a consumer because it eats caterpillars and other small animals.
4	How do decomposers connect dead organisms to the maple tree?	Decomposers break down dead material and return mineral nutrients to the soil. The maple tree takes up those nutrients through its roots and uses them to grow.

PART 3 • YOUR TURN (SAMPLE ANSWER)

Sample: grass (producer) → rabbit (consumer) → fox (consumer), dead fox → fungi (decomposer), and fungi → grass labeled "nutrients."

Accept any biologically plausible ecosystem with correctly labeled producer, consumers, and decomposer. Arrows should show energy beginning with the producer and nutrients returning from the decomposer to the producer.