

Trail Camera Detective

Mission: The preserve's trail cameras recorded eight clips overnight. Watch each clip, look for evidence of how each organism gets its energy, and tag its role for the wildlife database.

Big question: How can we classify organisms by how they get energy?

★ Warm-up: Quick sort

Sort into Producer, Consumer, or Decomposer.

Sunflower, bear, earthworm ✓ **Producer, consumer, decomposer.**

What do you eat? What does that make you? ✓ **Plants and animals: an omnivore (consumer).**

Key vocabulary

Herbivore	A consumer that eats only plants.
Carnivore	A consumer that eats only animals.
Omnivore	A consumer that eats plants and animals.
Evidence	What you observe that supports your answer.

1 Box 1

Tag the clips

In the simulator: Tag every organism correctly.

Copy your database into the lab sheet: type the role you tagged.

Organism	Role
Oak tree	producer
Raccoon	omnivore
Mushroom	decomposer
Owl	carnivore

2 Box 2

Evidence

What evidence shows the raccoon is an omnivore?

☐ It ate berries AND a crayfish ☐ It is active at night ☐ It lives near a creek ☐ It is furry

✓ **It ate berries AND a crayfish**

Tricky one

Pond algae are not plants, but we tagged them as producers. Why?

☐ They make their own food using sunlight ☐ They are green ☐ They live in water ☐ They are eaten by fish

✓ **They make their own food using sunlight**

3 Box 3

Two kinds of "eating"

How is a mushroom different from a deer, even though both get energy from other living things?

☐ Mushrooms break down DEAD things; deer eat living plants ☐ Mushrooms hunt ☐ There is no difference

✓ **Mushrooms break down DEAD things; deer eat living plants**

4 Box 4

Legend: build a chain from the clips  Legend only

Order a food chain using organisms from the clips.

Put in order: Clover (producer) · Deer (herbivore) · Mushroom (breaks it down after it dies) · Sun

1. **Sun**
2. **Clover (producer)**
3. **Deer (herbivore)**
4. **Mushroom (breaks it down after it dies)**

5 Box 5

Database note (CER)

Pick one organism from the clips and explain its role.

Claim

Look for: Names a role; at least 6 words

Evidence

Look for: Describes what it did in the clip; at least 10 words

Reasoning

Look for: Explains how it gets energy; at least 8 words

 **Exit ticket: answer the big question in your own words**

How can we classify organisms by how they get energy?

Look for: Producers make their own food from sunlight. Consumers eat other organisms: herbivores eat plants, carnivores eat animals, omnivores eat both. Decomposers get energy by breaking down dead matter. What an organism eats is the evidence for its role.

Completion codes

Students see a code like **ABC-I3** when they finish. The first part must match below. The letter is the level (E = Explorer, I = Investigator, L = Legend), and the number at the end is how many stars they earned.

Level	Code starts with
 Explorer	CYS-E
 Investigator	FTQ-I
 Legend	1LV-L

! Watch for these misconceptions

- "Arrows point to what an animal eats." Arrows show energy flow, pointing toward the eater.
- "Decomposers are not important." Without them, nutrients would stay locked in dead matter.

- "Plants get their food from the soil." Plants make food from sunlight, air (carbon dioxide), and water; soil gives nutrients.