ELL Reader

All Things in Balance

Science

Science

by Tamara Jasmine Burrell

Genre	Build Background	Access Content	Extend Language
Expository	 Balance of	 Definitions Diagrams Labels Glossary 	 Latin Word
Nonfiction	Nature Carnivores Food Chains Herbivores		Parts Word Structure

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Question of the Week

What unexpected effects can humans have on nature?

Key Comprehension Skill

Main Idea and Supporting Details

Concept Words

graze on nutrients decaying matter predators

Learning Goals

- People can upset the balance of nature.
- Plants and animals are in a food chain.
- Some animals are herbivores, and others are carnivores.





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Thompson's gazelles are small antelopes. They live with other animals in the grasslands of Africa.

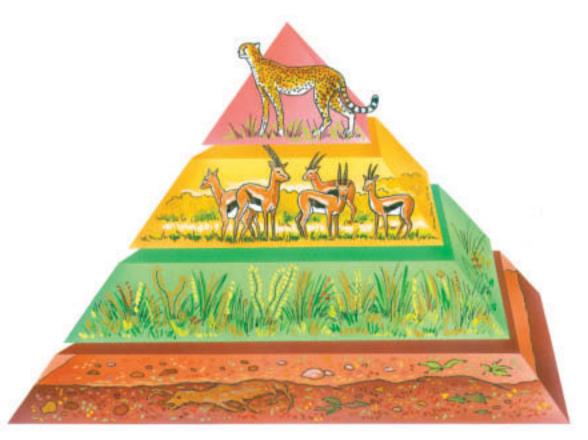
Cheetahs hunt herbivores, such as the Thompson's gazelle.

Some scales have two sides. When things weigh the same on both sides, the scale is balanced. Nature has a balance, too. What is the balance of nature?

Let's begin with a few definitions. Some animals eat only plants. They are called herbivores. They are also called plant-eaters or vegetarians. Herbivores graze on leaves and roots, seeds and nuts, fruits and grasses. Some of the biggest herbivores live in Africa. Giraffes, antelopes, zebras, elephants, buffalo, and wildebeests are all herbivores. Some animals do not eat plants. They eat other animals. They are called carnivores. They are also called meat-eaters or predators. African lions, hyenas, leopards, and cheetahs are all carnivores. The big cats and wolves of North America are also carnivores.

The Thompson's gazelle is one of the cheetah's most common meals. The Thompson's gazelle can run up to 50 miles per hour. A cheetah can run up to 70 mph. But a cheetah cannot run that fast for long. After 20 seconds the cheetah gets too hot and must stop. The gazelle gets away if it can run faster than the cheetah for more than 20 seconds.

graze on: eat



Food Chains

All living things need food. Most plants get their food from water, dirt, and sunshine. Nutrients and decaying matter in the dirt, or soil, feed the plants. Herbivores eat plants. Carnivores eat herbivores or other carnivores. Each living thing provides food for other living things in the food chain.

As you go higher in a food chain, there are fewer kinds of living things. It takes many things at the bottom of a food chain to support the living things at the top.

nutrients: substances such as minerals needed to live and grow **decaying matter:** dead plants and animals that rot in the soil

Nature in Balance

The balance of nature usually works well. **Predators** eat some plant-eaters. Some plant-eaters die. Some stay alive. Herbivores eat some of the plants. The plants have enough soil and water. Most of the living things stay healthy.

Nature Out of Balance

So what happens if things get out of balance? If there are too many herbivores, there may not be enough food. The animals get thinner. They become scrawny. They may even die of starvation. If the herbivores die, there is less food for predators. Soon, the predators starve and die too.

With no animals to eat them, the plants grow thick. After many years, there are too many plants. The plants fight for water, soil, and sunlight. Eventually, they may get sick and die too.



predators: animals that hunt to eat

What Upsets the Balance?

At times, a storm or a flood may upset the balance of nature. Sometimes humans upset the balance of nature. Sometimes humans help restore it. Here is what happened to one animal: the island fox.

The island fox lives in the Channel Islands of California. This little fox eats insects, birds, and other small animals. It also eats fruit, so it is an omnivore. An omnivore eats both plants and animals.



In the past, this fox had no enemies. Then humans came to the Channel Islands. They brought pigs. Some pigs escaped. Now wild pigs live all over the islands.

Today, the island fox does have an enemy: a predator called the golden eagle. This eagle comes to the islands to eat the wild pigs. It eats foxes too. Now, the island fox is endangered. These little foxes could disappear from our world.

No one wanted to upset the balance of nature in the Channel Islands. People learned that changing one thing can change the balance of an environment. Now people are working hard there to restore the balance.



Glossary

bal•ance of na•ture

(bal 'ans of nā 'cher), **NOUN**. a proper balance between plants and animals in one location

car•ni•vore

(kär'nə vôr), *NOUN*. a meateating animal; a predator

en•dan•gered

(en dān'jerd) ADJECTIVE. in danger of dying out forever. When all the animals of one kind could die, that kind of animal is called *endangered*.

en•vi•ron•ment

(en vī'rən mənt) **NOUN**. a large area; a place where plants and animals live, eat, and have their young

food chain

(füd chān), **NOUN**. a sequence of organisms in which food passes from one living thing to another. Each living thing is a source of food for others.

her•bi•vore

(ėr 'bə vôr), **NOUN**. a planteating animal; a vegetarian

om•ni•vore

(om'nə vôr'), **NOUN**. an animal that eats both plants and animals

pred•a•tor

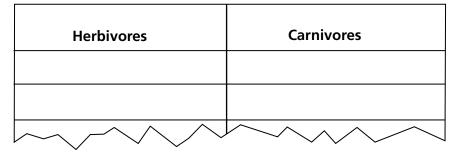
(pred 'a tar), **NOUN**. an animal that lives by hunting and eating other animals

Talk About It

- 1. Why are plants important for herbivores?
- 2. What does the balance of nature mean?

Write About It

3. Make a chart on a separate sheet of paper. Classify animals as plant-eaters or meat-eaters. Use examples from this book. Then add other kinds of animals.



Extend Language

A food called *chili con carne* (chili with meat) can include beans from plants, as well as meat. What part of the word *carnivore* means "meat"—*carni* or *vore*? What is the word for an animal that eats plants and meat?

Extend Language La

Latin Word Parts

- The word **carnivore** includes a word part, *carni*-, that comes from the Latin word for "meat."
- The word **herbivore** includes *herbi*-, from a Latin word for certain kinds of plants.
- The word **omnivore** includes *omni*-, from the Latin word for "all."

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