



What Does an Animal Eat?

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Target grade: 2nd Grade Science

Time Required: 70 minutes

Essential Question

How do animals get their energy?

Required Materials

What Does an Animal Eat? Book by Lawrence F. Lowery
National Geographic magazines (or others with lots of animal photos)
Encyclopedias (digital or print)
Poster board or large sheet of paper
Tape

Background Information

All living things need energy to live. Organisms get their energy in different ways. Plants make their own energy using photosynthesis. Animals get energy by eating plants or other animals. Not all animals eat the same things. Animals that eat only plants are called herbivores. Examples include cows, deer, and rabbits. Animals that eat only other animals are called carnivores. Examples include lions, spiders, and sharks. Animals that eat both plants and animals are called omnivores. Examples include bears, monkeys, and pigs.

Lesson Objectives

Students will be able to

- Sort animals by the types of food they eat.
- Develop a model to describe the cycling of matter and flow of energy among living and nonliving parts of the ecosystem.

Instructional Process

Introduction: Talk about three types of food-eating animals: herbivores (plant eaters), carnivores (meat eaters), and omnivores (those that eat both).

- **Teacher says:** “1, 2, 3, eyes on me! Today in science we will be discussing some ideas in Life Science about animals and the food they need to grow. Our goal for the day is to be able to sort animals by the types of food they eat, and develop a model that shows the flow of energy from one animal to another” (Standards and Objectives have been introduced).

Whole Group: Read *What Does an Animal Eat?* Emphasize that there are three different types of food-eating animals: herbivores (plant eaters), carnivores (meat eaters), and omnivores (those that eat both).



Teacher says: If you will notice, there were three different types of food-eating animals in the book. **Can anyone name the three types of food-eating animals?** (Pause for answers) **Why do you think ecosystems have different food-eating animals?** (Pause for answers)

Activity: Have students cut pictures of animals from National Geographic magazines or other magazines that the teacher provides or the students bring from home. Students will place pictures from the magazines onto a chart divided into three categories: Herbivores (plant eaters), Carnivores (meat eaters), and Omnivores (those that eat both).

Each student will collect two animals from different food-eating categories. Students will use encyclopedias (print or digital) to determine what kind of food-eating animal their picture is if they do not know. Once they have cut out their animals, they will bring them to the chart and place them in the category they belong. When everyone has placed their pictures on the chart; go through all of the animals as a class and describe why each belongs to the category it is in.

Teacher says: “Now we will take what we have read in our book about different food-eating animals to fill a chart with the three different categories of food-eating animals. I have given each table several magazines. You will take your scissors and cut out pictures of different food-eating animals. Each of you will pick two animals from each of the different food-eating categories. Once you have cut out your pictures, you will bring it to the chart and tape it under the category it belongs to. **Can someone summarize the directions for the class please? Are there any further questions before we begin?** If you have any questions please raise your hand and wait patiently for me to come to you. You may now take out your scissors and begin cutting your pictures.”

Group Discussion: As a class, go through the animals in each category together and decide if the animal is in the correct group. As the class discussed each animal, list physical characteristics of each animal on the board under the category of food-eating animals they fall under. Have the students record these characteristics in their science journals.

Closing Activity: Students will work in groups to develop a model that describes the cycle of energy from one animal to another by placing herbivores first and drawing arrows from these animals to smaller carnivores and arrows from these to larger carnivores, and so on.

Model the thinking and demonstrate how to develop a model on the board as you explain the closing activity.

Teacher says: “Now we can take what we have learned through reading *What Does an Animal Eat?* and organizing animals into food-eating categories to develop models that show us how energy is transferred from one animal to another. We start by placing a herbivore animal on our model. **Why do we start with a herbivore animal?** Yes, we start with a herbivore animal because they are the lowest on the food chain. They are the lowest because they don't prey on other animals. **Why would we place carnivore animals after herbivore animals on our model?** This is correct; we place them after herbivore animals because they eat the herbivore animals. We can then place larger carnivore animals after smaller carnivore animals. Now, our model will show the flow of energy from the producer which is the plant, to the primary consumer which is the herbivore animal, to the secondary consumer which is the carnivore animal.



Teacher says: You will now get into your normal groups and create a model like I have on the board using the remaining animal pictures from the magazines. **Are there any questions before we begin?** If not, you may begin working. Race your hand when you are finished or if you need help and I will come around to check your work.

Assessment/Follow-up

Students will complete an Exit Ticket. The Exit Ticket will require them to place three animals in their correct food-eating category, and draw a model that explains what the animals eat. For example, the ticket could list a rabbit, a snake, and a bear. The students would place the rabbit in the herbivore category, the snake in the carnivore category, and the bear in the omnivore category. The student will draw an arrow from the rabbit to the snake, and then draw an arrow from the snake to the bear, demonstrating a model that show the transfer of energy from one animal to another.

Alignment with Next Generation Science Standards

LS1 .C: Organization for Matter and Energy Flow in Organisms

- All animals need food in order to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.