

Science Lesson

Press this button down the bottom
to make it full screen



How many of these have you seen before in real life?



If you are outside playing in the garden see can you find any.

Soak Up the Sun

Plants need energy to grow and reproduce. Where do you think this energy comes from?

Active Reading As you read these pages, draw one line under the source of energy for producers. Draw two lines under the products of photosynthesis that contain energy.

You eat food, such as tomatoes, to get energy. But all green plants, like these tomato plants, must produce, or make, their own food. A **producer** is a living thing that makes its own food.

The process a plant uses to make food is called **photosynthesis**. During photosynthesis, plants use the energy from sunlight to change water and carbon dioxide, a gas in the air, into sugars. A plant uses the sugars as food for growth or it stores them. During photosynthesis, plants give off oxygen, a gas that both animals and plants need.

Photosynthesis happens in leaves. The sun's energy is used to make sugars, which the plant uses or stores.

water

sunlight

carbon dioxide

► What does a plant take in for photosynthesis?
What does the plant produce?

Plants Take In

Plants Produce

When we eat tomatoes, we get energy from the sugars that a tomato plant made and stored.

Explanation:

Plants need energy (food) to grow from a seed into a flower. The same way we need energy (food) to help us to grow from a baby into a child, then a teenager and then an adult.

Producer is the name we call something that makes its own food. (think of a movie producer what do they do they make a movie so producer is to make) A flower makes its own food.

*Remember that word, very important will need it later....

The way the plant creates their own food is called photosynthesis (photo- sin- ta- sis).

Photosynthesis is where the plants take in carbon dioxide, water and the sun's light and turn it into food to help it to grow.

We already know that the plants take in the carbon dioxide we breathe out and what do they give off ????

Oxygen that's right.

Nature's Dinnertime

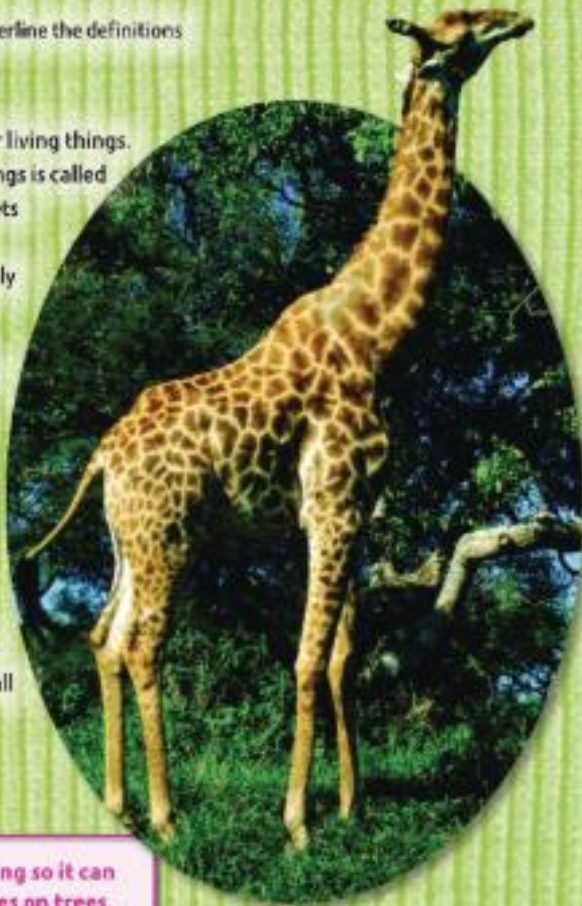
Animals cannot make their own food. So where do animals get the energy they need?

Active Reading As you read, find and underline the definitions of *herbivore*, *carnivore* and *omnivore*.

Animals get their energy by eating other living things. A living thing that eats other living things is called a **consumer**. When a rabbit eats grass, it gets energy from the grass.

A rabbit is a *herbivore*, an animal that only eats plants. Some animals get energy by eating only other animals. These meat-eating animals are called *carnivores*. A wolf is a carnivore because it eats animals like rabbits. Some animals, such as raccoons, eat both plants and animals. They are called *omnivores*.

There are also living things that get energy from once-living things. An organism that breaks down dead organisms for food is called a **decomposer**. Earthworms, bacteria and mushrooms are all examples of decomposers.



A giraffe's neck is long so it can reach the high leaves on trees.



Many decomposers have special chemicals that help them break down dead organisms.



A loggerhead sea turtle eats seaweed and animals like squid and scallops.

Which Is It?

Decide whether each organism is a carnivore, an omnivore, a herbivore or a decomposer. Put a check mark in the correct column.

| | Carnivore | Omnivore | Herbivore | Decomposer |
|------------|--------------------------|--------------------------|--------------------------|--------------------------|
| Sea Turtle | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Jaguar | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Giraffe | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| Mushroom | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |



Jaguars will eat deer, turtles, monkeys and birds.

Explanation

Animals cannot make their own food. They must get it from somewhere. But where?

A living thing which eats a living thing is called a **Consumer**.

Can you think of any animals and what they eat? They are consumers

There are three types of consumers (animals who eat living things)

Herbivore – eats plants only (*think herbs are plants)

Carnivore – Eats meat only

Omnivore- eats both (*think om nom nom, very hungry will eat anything)

Last one then is a **Decomposer** this eats dead things. Think of a worm eating the dead leaves that fall on the ground.

Check up – Write the answers into your copy and draw a picture of each

1. What is a producer?
2. What is a consumer?
3. What is a Decomposer?
4. What is a herbivore? (*herbs)
5. What is a Carnivore?
6. What is an omnivore? (*on nom nom starving)

What did you get out of 6?

6



Mesquite trees use energy from the sun to produce sugars. They store some of the sugars in their seeds.

Food Chains

A rabbit eats grass. Later, a wolf eats the rabbit. Energy moves from producers, like grass, to consumers, like rabbits and wolves.

Active Reading As you read these two pages, write numbers next to the pictures to show the correct order of events in a food chain.

Energy moves between living things in an ecosystem. A **food chain** shows the path of food from one living thing to another. Grass, rabbits and wolves are part of a food chain. The rabbits eat the grass and the wolves eat the rabbits. Energy moves from the sun to the grass to the rabbit to the wolf.

In a food chain, many animals eat other animals. An animal that hunts other animals for food is a **predator**. An animal that is hunted for food is called **prey**. A shark hunts and eats fish in a food chain. The shark is a predator. The fish are the prey. Animals can be both predators and prey in a food chain. Prey for one animal may be a predator of another animal.



Kangaroo rats get energy by consuming mesquite seeds.



Rattlesnakes eat kangaroo rats to get energy.



The roadrunner is the consumer at the top of this food chain. The energy stored in food passes through the food chain to the roadrunner.

Eat or Be Eaten

► Circle the predators and put an X on the prey.

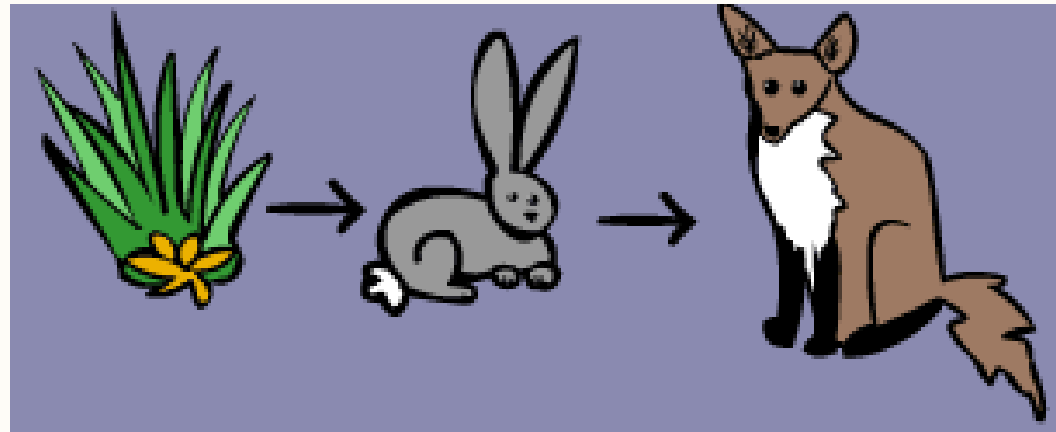
Food chain shows what is eaten what who.


Prey- an animal that is being eaten by another animal

Grass is eaten by the rabbit who is eaten by the fox

Who is the producer? Grass

What is the Consumer? Rabbit and fox



Write what a food chain is into your copy and you can either draw this one or make up your own.
Watch the direction of the arrows.  Means is eaten by

