

# From the Sun to Your Food

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vegetables and fruits

*Image courtesy of LustrousTaiwan, via Pixabay*

All living things need energy to move and grow. Energy can come in many different forms. For example, light energy, heat energy, and chemical energy are all different forms of energy. While energy cannot be created nor destroyed, it can be converted between different forms.

Where do plants get their energy? They get their energy from the sun. Plants absorb sunlight with their leaves. They use the sun's energy to change water and carbon dioxide into plant food and oxygen. This chemical process is called photosynthesis. Photosynthesis means, "making out of light." The energy from the sun, light energy, is converted into chemical energy through photosynthesis.

Plants are called producers because they *produce* their own food. Producers form the base of every food chain in an ecosystem. Plants are eaten by animals, which are eaten by larger animals. Through this process, energy from the sun is transferred from one living thing to another. For example, a plant captures energy from the sun and turns it into plant food. Later, that plant might be eaten by a rabbit, giving the rabbit energy. Then, a human eats the rabbit. The energy the human gets from the food was originally energy from the sun!

The food humans eat provides us with energy. When we chew and digest food, a chemical

reaction takes place. The energy produced from this reaction fuels our bodies. We require energy from food for basic functions like moving and breathing. Energy from food also helps our body repair itself and stay warm.

The amount of energy we get from food depends on which nutrients are in the food we eat. Whole foods, like kale, contain lots of important nutrients, such as calcium and potassium. Sugary foods, like candy, do not contain as many nutrients. Whole foods can help us sustain our energy over long periods of time. Notice how you feel when you eat whole foods like vegetables and fruits. Are you more energized throughout the day?

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. According to the passage, why do all living things need energy?

- A. to read and write
- B. to watch a movie
- C. to move and grow
- D. to smell good

2. What happens after plants absorb energy from the sun?

- A. They overheat and die so new plants can grow in their place.
- B. They change colors and humans pick the flowers to sell.
- C. They turn it into chemical energy through photosynthesis.
- D. They gain energy and are used for charging cell phones.

3. Read the following sentences from the text.

"Plants are eaten by animals, which are eaten by larger animals. Through this process, energy from the sun is transferred from one living thing to another. For example, a plant captures energy from the sun and turns it into plant food. Later, that plant might be eaten by a rabbit, giving the rabbit energy. Then, a human eats the rabbit. The energy the human gets from the food was originally energy from the sun!...We require energy from food for basic functions like moving and breathing. Energy from food also helps our body repair itself and stay warm."

What conclusion can you draw from this evidence?

- A. The sun has an important role in keeping humans alive by giving us energy.
- B. Eating a rabbit does not give a human any energy but eating plants does.
- C. If living things don't get energy from the sun, they can get it from the moon.
- D. Rabbits are an important source of energy for all living things, including plants.

4. Why are whole foods good for your body?

- A. They haven't been eaten by anyone else yet so there is more food to eat.
- B. They do not have many nutrients so your body turns them into energy faster.
- C. They taste better than all other foods so you are more excited to eat them.
- D. They give you important nutrients and energy for long periods of time.

**5.** What is the main idea of this text?

- A. The sun helps plants turn light energy into chemical energy which is then passed on to other living things, like humans, to live.
- B. Photosynthesis is when plants absorb sunlight with their leaves and use it to change water and carbon dioxide into plant food and oxygen.
- C. Plants are called producers because they make their own food and this makes them the last living thing in every food chain.
- D. Whole foods have a lot of important nutrients, like calcium and potassium, and sugary foods do not have as many nutrients.