

ENERGY FOR LIFE

Hi Friends

I am always looking forward to meet with you good friends. Your loyalty means a lot to me and it gives me more courage to find out more information and also to be loyal to you too. I must say thank you for being regular readers of our newsletter. This means that together we can make a difference in protecting our only planet, our home Earth, for which there is no replacement. This time we will share information on energy for life and its transfer.

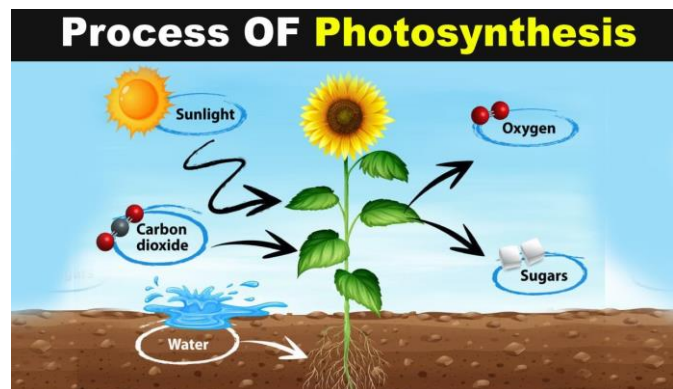


Credit: Brilliant

Energy is the ability to do work or any activity. Without energy no activity will be completed simply because there is lack of energy. Energy is natural which means it cannot be manufactured by humans. It is transferred from the sun to plants to living things.

Sunlight is the main source of natural energy which comes down to the ground for living things. **Plants** absorb this sunlight energy using their specialised cells which will convert the sunlight into sugar and other end products. Photosynthesis is the process in which plants convert light energy into chemical energy and store it as sugar within chloroplasts. **Chloroplasts** are plant parts that carry out the process of converting light energy into carbohydrates (sugar), fats (fatty acids), protein (amino acids) and other molecules plants use as food.

Chloroplasts are also full of chlorophyll, the green pigment important to photosynthesis that helps the plant absorb light. Energy stored during photosynthesis begins the flow of energy and carbon down the food chain. **Plants** use their energy differently from animals. Plant will then store the carbohydrates, protein and fats in them. The plant portion that animals eat will be digested, with the help of enzymes,



Credit: youtube.com

into smaller particles that will be absorbed by the body especially in the stomach of other animals (but not human), the small intestines and the large intestine. Simple sugar refers to the glucose and fructose which does not need further digestion but it is absorbed. These particles are known as nutrients which will serve different purposes in an animal's body. Animals and humans will then use the energy for different activities such as running, studying, mowing grass, etc.

Let's look at examples of how animals and humans use energy and transfer it
Animals get their energy by eating other organisms (remember a human is also a part of the Animal Kingdom).



Credit: discovermagazine.com

Cows eat plants (grass) to get energy.



Credit: beef2live.com

Cows use energy to produce young, produce milk for them and protect them.



Credit: eatthis.com

Humans eat to obtain energy.



Credit: codeprojects.org

Humans play using energy.

Please check out the following video: <https://www.youtube.com/watch?v=HHOKe0Xy-Oc>

Humans eat either plants or meat from other animals in order to obtain energy. So let us use natural resources wisely and protect them because they are all connected.
REMEMBER TO BE WATER WISE.

Love
The Water Wise Education Team



For more information on being Water Wise please contact 0860 10 10 60 or log onto www.randwater.co.za and click on the Water Wise logo

#WaterWise #RandWater #KnowBetterDoBetter



References for Newsletter:
• generationgenius.com
• eniscuola.net

“ENERGY FOR LIFE” ACTIVITY

ANSWER THE FOLLOW QUESTIONS:

1. Make a **X** over the correct answer for the questions below.

a. The ability to do work or other activities is referred to as:

action, energy, running

b. The source of raw energy comes from:

plants, food, sun

c. Plants convert sunlight energy in the process of:

respiration, evaporation, photosynthesis

d. Animals get their energy from the:

sun, plants, soil

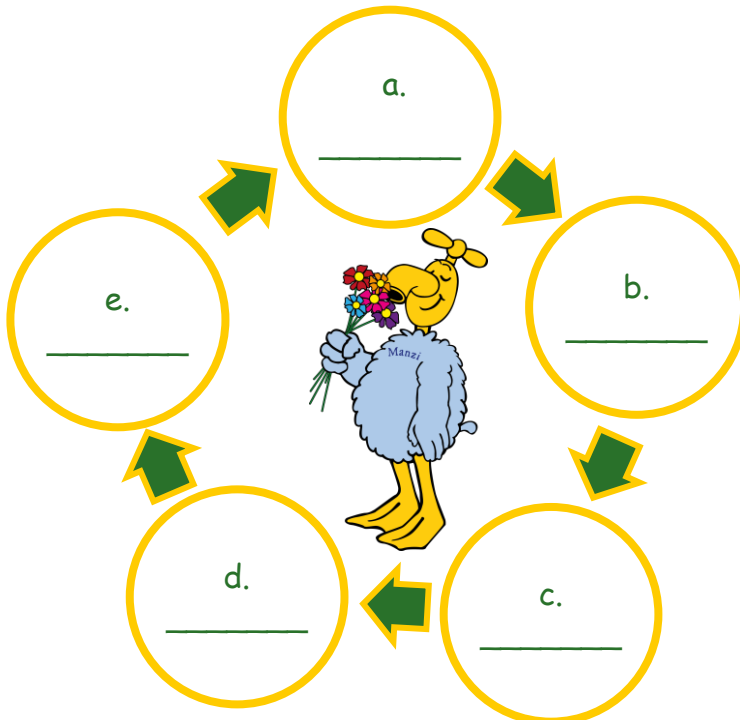
e. The only living things that are able to convert sunlight energy to sugar is:

animals, birds, plants

Answers:
1. a. Energy
1. b. Sun
1. c. Photosynthesis
1. d. Plants
1. e. Plants

2. Using the words provided, complete the energy for life process below:

eagle, cabbage, mouse, sun, snake



Answers:
2. a. Sun
2. b. Cabbage
2. c. Mouse
2. d. Snake
2. e. Eagle

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<https://forms.gle/ePtXdPBUjTz4Um5H7>

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