

## Energy in the Environment

**WebQuest Description:** This webquest will give the definition for energy along with the various types of energy it will also give examples for the different types of energy form. It will also look on the various forms of energy conversions (how they transform from one energy to the next).

**Grade Level:** 6-8

**Curriculum:** Science

**Keywords:** conversion, Energy, potential, chemical, kinetic, electrical, nuclear

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### Introduction

Energy is the ability to do work. Energy exists in many different forms. Examples of these are: light energy, heat energy, mechanical energy, gravitational energy, electrical energy, sound energy, chemical energy, nuclear or atomic energy and so on. These forms of energy can be transferred and transformed between one another. This is of immense benefit to us. For a source of energy to end up as electricity it may undergo many transformations before it can power the lightbulb in your home. Although there are many specific types of energy, the two major forms are Kinetic Energy and Potential Energy. Energy transformation, also termed energy conversion, is the process of changing energy from one of its forms into another. In physics, energy is a quantity that provides the capacity to perform many actions – some as simple as lifting or warming an object.

### Tasks

Select the word that matches the

definition

**DEFINITIONS**

A. Energy of water at the top of a waterfall

B. Energy of movement

C. Energy given off by the sun of a fire

D. Energy used to power appliances

E. Energy caused by vibrations

F. Energy released from atoms

G. Energy given off by a flashlight

H. Energy found in food, fossil fuel and dry cell

I. Sound Energy

**FORMS OF ENERGY**

### Process

1. You will learn of the different energy conversions. 2. You will learn about the law of energy conversion. Use the following words to complete the following sentences. Work, Converted, Chemical energy, Kinetic energy, Potential Energy & Sound energy.

1. Energy can be \_\_\_\_\_ from one to another and \_\_\_\_\_ can be done.

2. \_\_\_\_\_ from coal, oil, natural gas can be transformed into heat energy.

3. When an object or body is in a static or still position and then it moves and is in motion this is the conversion of \_\_\_\_\_ to \_\_\_\_\_.

4. \_\_\_\_\_ (energy of the sound) is a type of wave motion.

5. The energy stored in food is known as chemical energy this energy can be transformed into \_\_\_\_\_.

# Evaluation

Evaluation Rubric  
Unsatisfactory Satisfactory Very Good Exemplary Total Marks  
Organization 0-234 5 5 Creativity 0-23455  
Content 0-234510 Language 0-23455

Category and Score					Score
				Total Score	

# Conclusion

This unit was based on the topic energy. Energy is the capacity for doing work. It may exist in potential, kinetic, thermal, electrical, chemical, nuclear, or other various forms. There are, moreover, heat and work therefore, energy in the process of transfer from one body to another. After it has been transferred, energy is always designated according to its nature. Hence, heat transferred may become thermal energy, while work done may manifest itself in the form of mechanical energy. The law of conversion of energy is one of the fundamental laws of Physics. It states that energy can neither be created, nor destroyed. It is merely transferred from one form to another. It implies that in a closed system, the net total energy will always remain constant. Energy is the building block of all activities in the universe. Anything we do requires energy. As such, it is important to understand what exactly energy conversion means, how it works and what are the consequences of it

# Teacher Page

**Standards**

**Credits**

**Other**