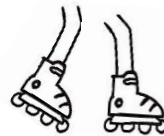


What is Energy?

ENERGY is “the **ability to work**” or “the **potential to cause changes**”. It is needed to move things, like when you are running up the stairs or to change things, when you are cooking your dinner.

There are *different forms of energy*, of which some are:

Motion or Kinetic Energy: anything that moves possesses energy.



Potential Energy: energy that is stored, eg when you blow air into a balloon and keep it in there.



Electrical Energy: is created through the movement of electrons and comes out of our plugs.



Light Energy: Most of the light energy on earth comes from the sun.



Heat or Thermal Energy: You can feel the power of the sun or of an oven through heat.



Other types of energy are chemical, gravitational, nuclear energy.

Energy is **EVERYWHERE** around us

and we USE it **ALL THE TIME!**



Let's become **Energy Detectives**

and **track down** different types of energy we are using during the day!

Use the Energy Tracker on the next page and imagine a regular day, from getting out of your bed until you go back to bed at night: what activities are you usually doing and what types of energy are you using for them?

Keep in mind: sometimes one activity can involve more than one form of energy!

For example brushing your teeth involves

- Motion/Kinetic energy: pressing toothpaste on your toothbrush and moving your arm.
- Electrical Energy: is used in case you have an electric toothbrush.
- Light Energy: in case it is still dark when you get up you will likely turn on the light (which also requires Electrical Energy)



Conservation of Energy

Conservation of Energy, means saving energy and is very important!

To make energy natural resources such as water, oil and natural gas are used. Many of which only exist in a limited amount, so we need to be considerate when using them.

Another reason why it is so important to save energy is that the production and also the use of energy often causes pollution which can make people and animal sick and cause irreversible damage to our planet earth.

Everyone can save energy every day!

Here are some examples:

- **Cars** that run on gasoline pollute our air with their exhaust gases and gasoline is also made from scarce natural resources.
 - We can reduce air pollution and gasoline by leaving the car in the garage and riding the bike instead. Or we can be more efficient when going shopping so that we only have to go to the stores once a week instead of going several times.
- **Water** is not only used for drinking and to wash your hands but also in a lot of production processes for products we use every day.
 - We can easily save water by just using less of it, for example by turning of the tab when brushing our teeth or installing a water saving head on our faucets. You can also save water by switching to products that use less water during their production. Another great way to save water is to use less plastic since producing plastic needs a lot of water. Buy things like oats and nuts in stores where you can bring your own containers or switch from liquid soap to soap bars which are sold without a plastic wrapping.

Use the next page to write down what you want to do to save energy every day to protect our beautiful planet.

My Plan To Save Energy