



EXPERIMENTAL ALL-DAY PRIMARY SCHOOL OF PORTARIA

CLASS F'

Within the project "Ecological houses" the students and Andreadis Gabriel and Tsagrasoulis Orestis undertaken to gather, from various sources, information and other stuff about the terms: Energy – Forms of energy – Sources of energy.

Then review, filter and adjusted, all the information collected, at this level to be understood by school children.

With the help of his teacher Makris Nicholas, adapted to these information respective pictures - videos and created a presentation (Power point), which they showed to their classmates.



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CLASS F'

CREATION - PRESENTATION:

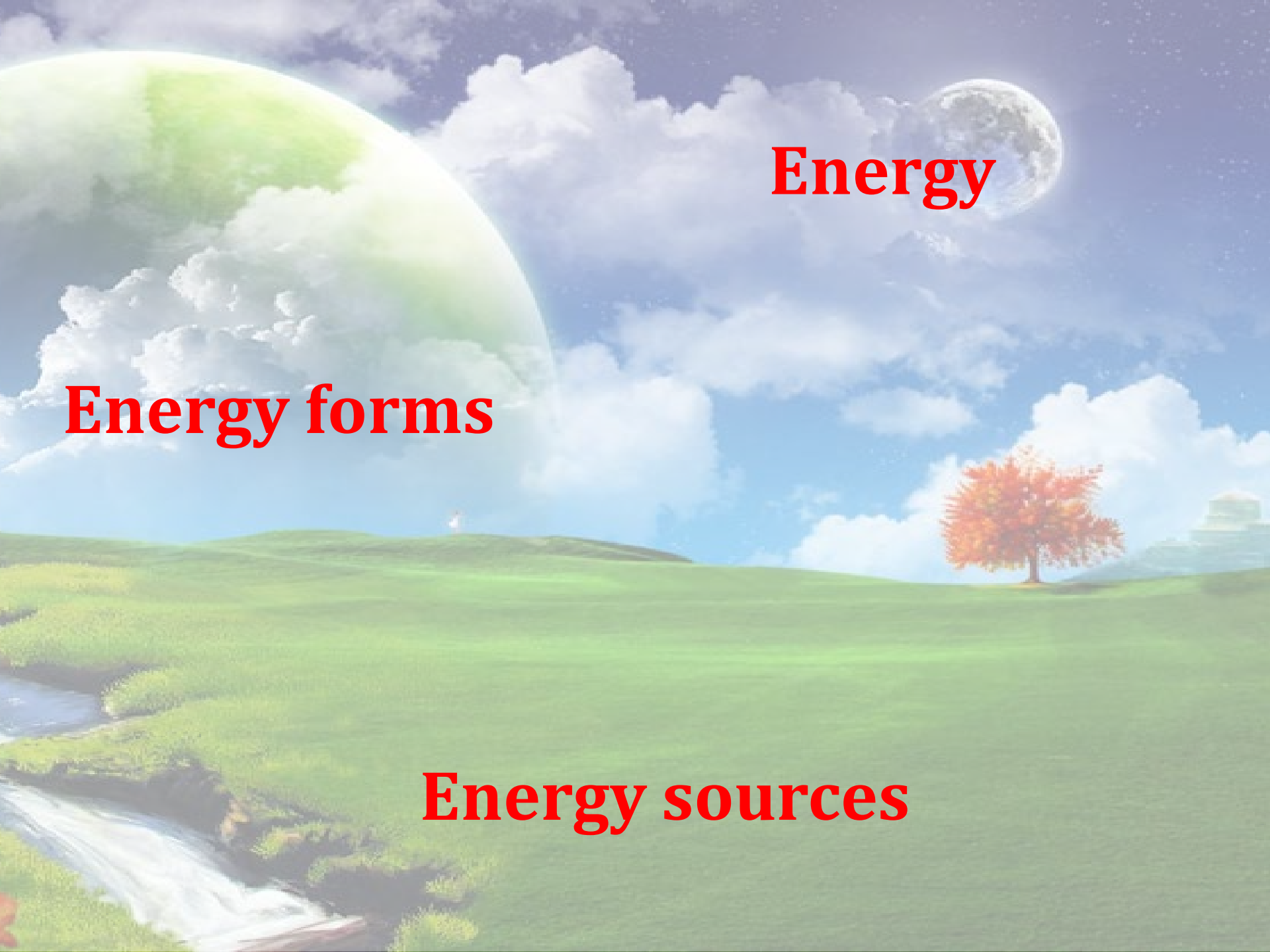
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Energy

Energy forms

Energy sources

Energy

The most popular and the most inaccessible to our senses size is energy. Energy is something we can't touch, see, smell or hear. But, we can hear energy as sound, look it as light and to feel it as air. We understand it only as a result known as work.



Any form of action from toys to the operation of machinery and cooking food to the production line at the plant requires energy consumption.

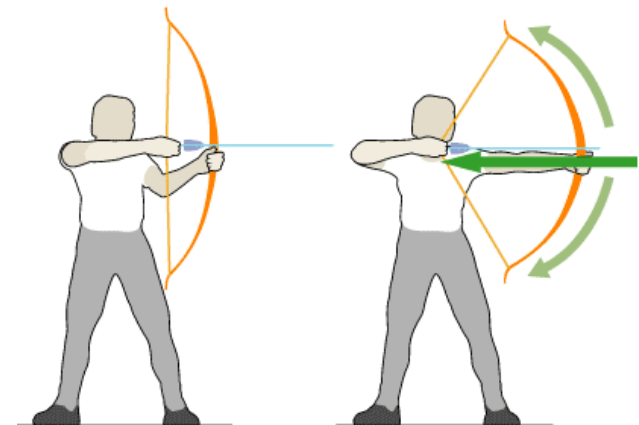
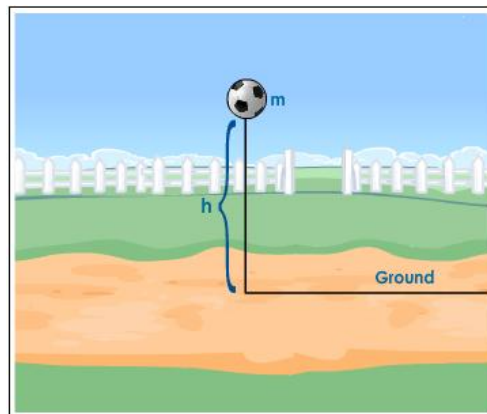
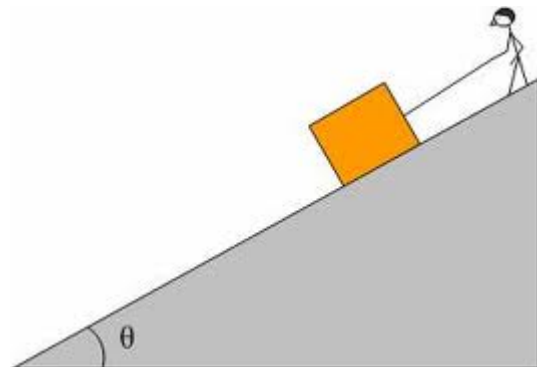


Energy

Energy is that size is often perceived and understood as “the ability to have a natural system to produce work (to do some work) ”



Defined as the amount of work required for the system to go from an initial state to a final.

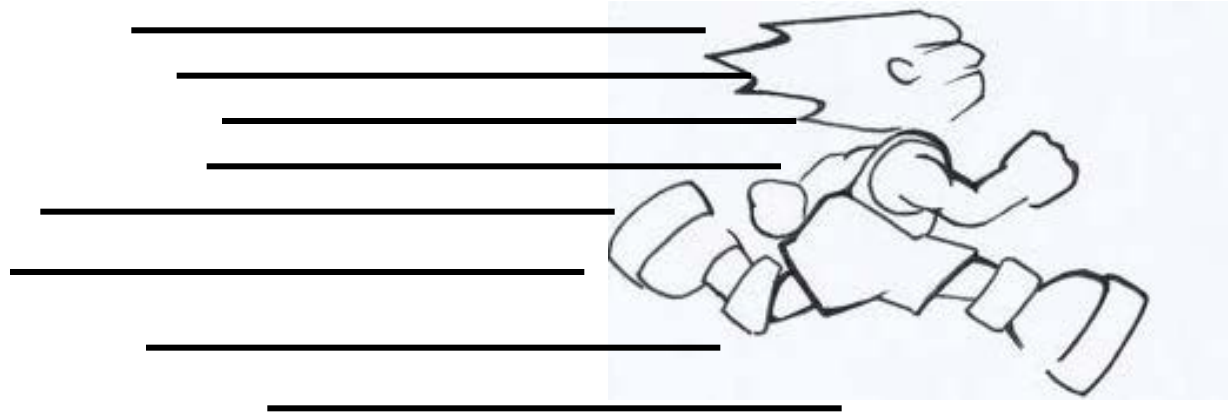


Energy

All living organisms need energy both to **grow** and to **move**.



Energy

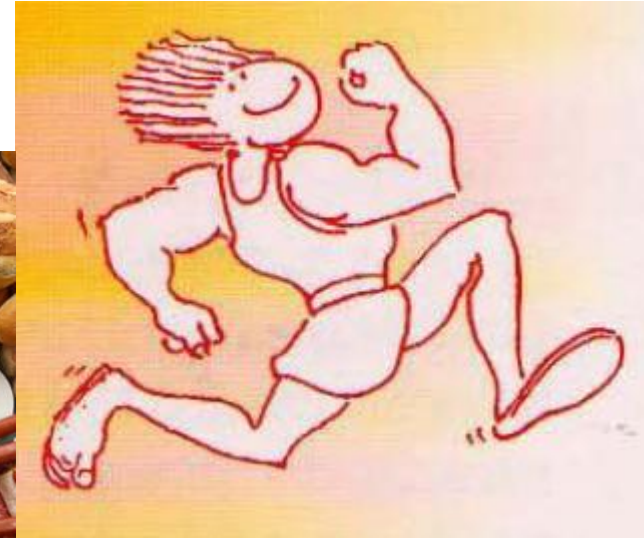


Question: Do you know some reasons why human beings, as all of the organizations, we use energy



Energy

**Our bodies need energy
to move**

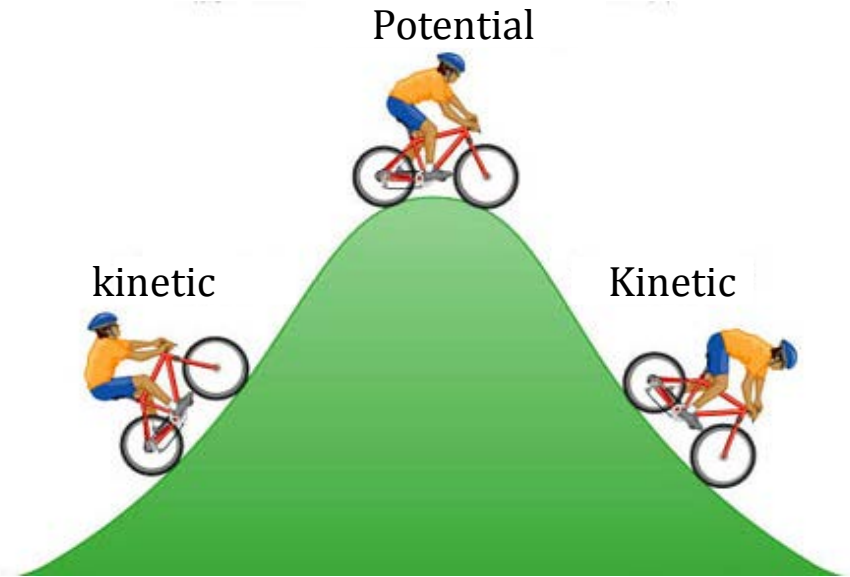
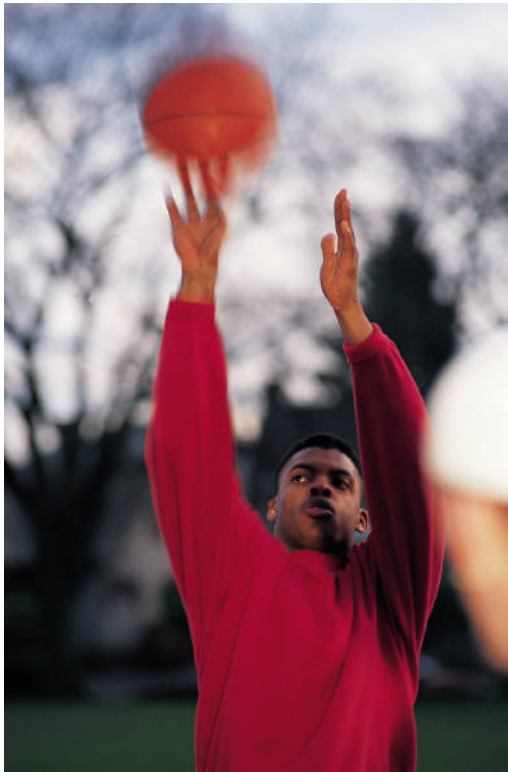


... .. but the machines need energy to operate also.

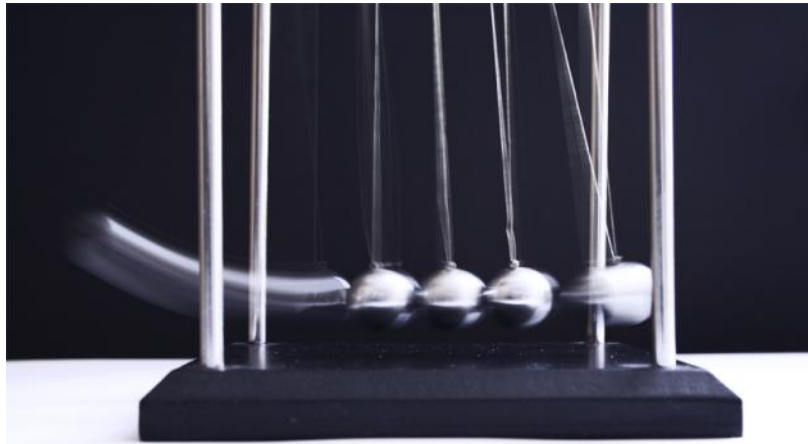


Situations and forms of energy

The most common reactions are those conversions between potential and kinetic energy.

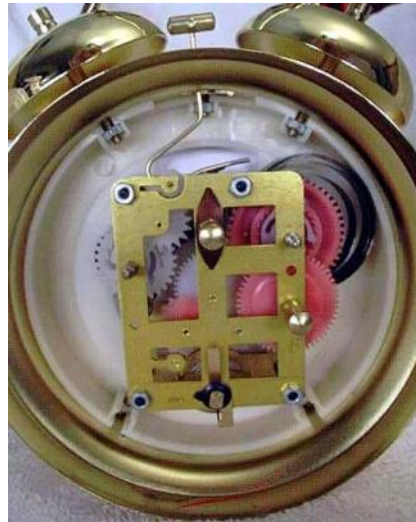
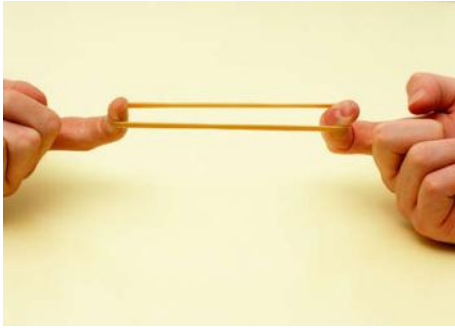


All energies are in these two situations.
Dynamics or kinetics.



Situations and forms of energy

Dynamic = stored energy.



Situations and forms of energy

Kinetic = moving energy.

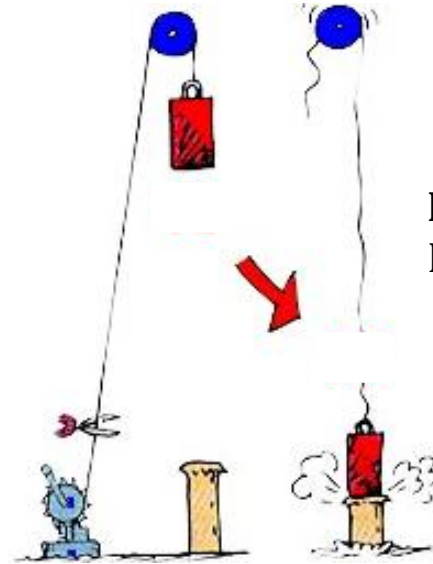


Energy

The energy never dies and never created from scratch.



The strangest thing about energy is that we can not create nor to get rid of it. We can only change it from a **form of energy to another.**



Example 1
Potential = Kinetic

Example 2

light bulb converts electrical energy into light and heat .



Forms of energy

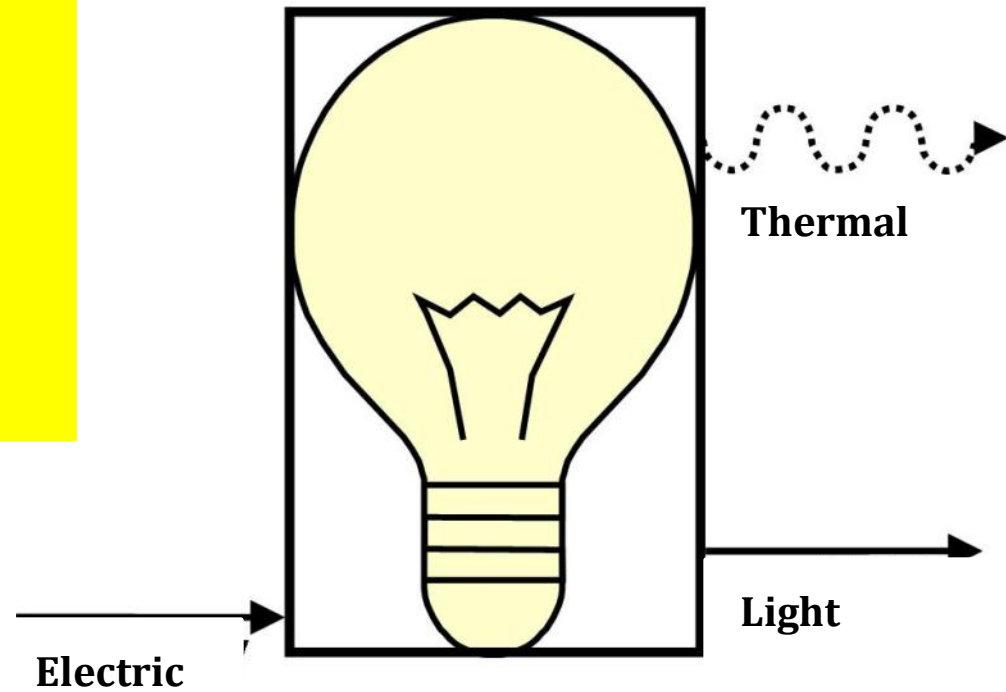
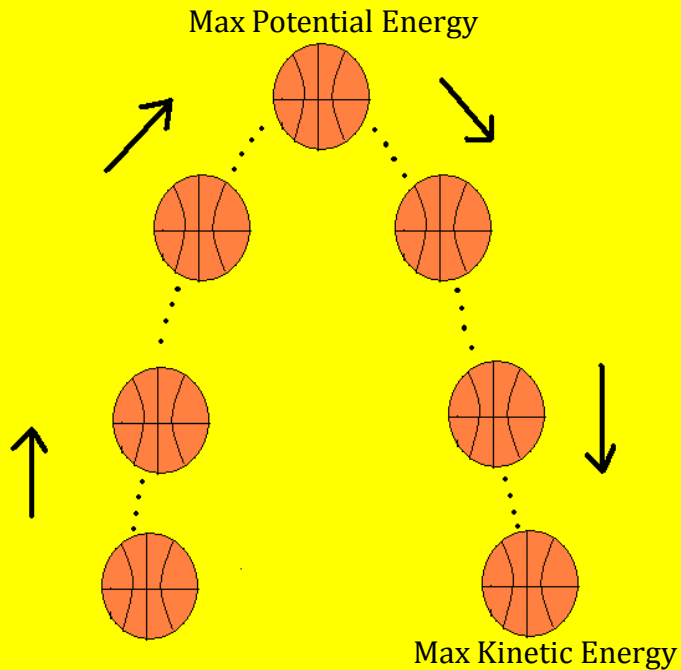
We give different names in energy depending on its origin and how its use.



The different "faces" of energy called forms of energy and divided into: Kinetic, Dynamic, electrical, chemical, light, thermal, nuclear.

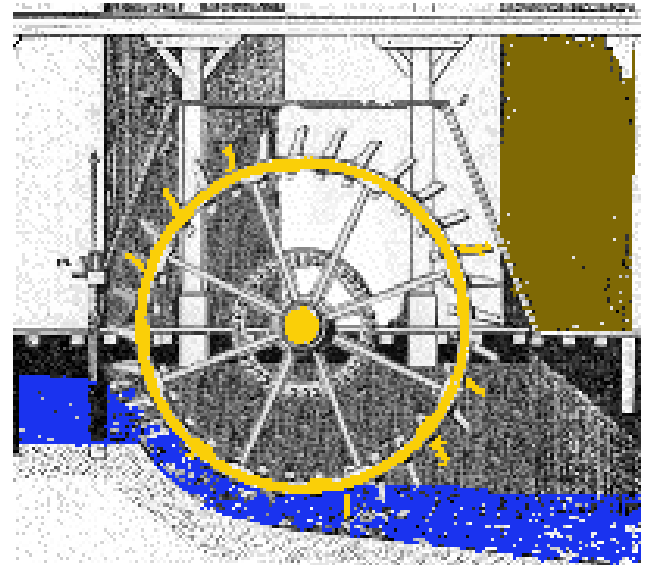
Forms of energy

The energy can change forms and converted from one format to another.



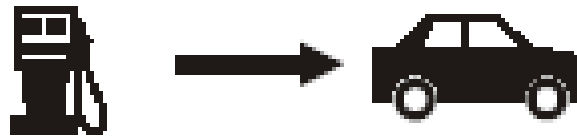
Forms of energy

ΕΡΩΤΗΣΗ: Ποιο από τα δύο είδη νερόμυλων έχει μεγαλύτερη κινητική ενέργεια;



Forms of energy

Exercise: Can you identify the energy conversions that show the pictures?

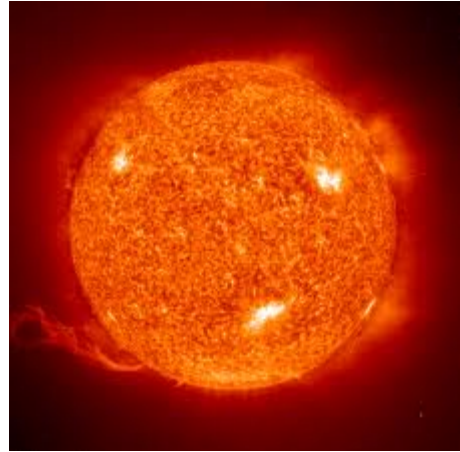
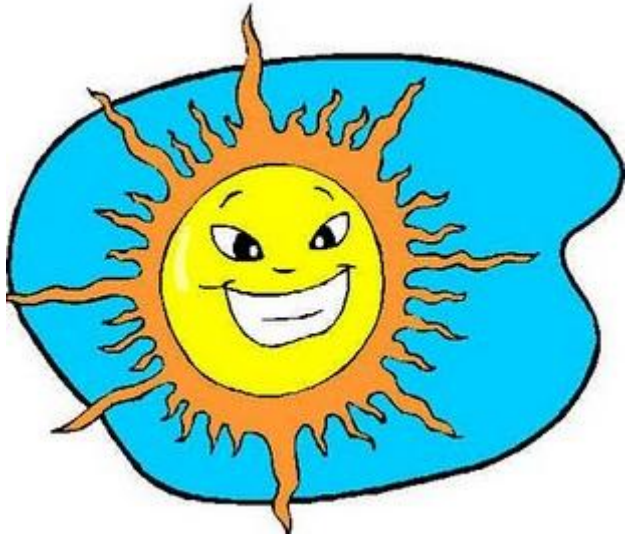


Thought

Can you indicate the forms of energy we use in a building like the school

Energy sources

The sun constantly radiates energy in the universe. The energy of the Sun is nuclear energy. That comes from the combination, the fusion of hydrogen nuclei and the creation of nuclei of the chemical element helium. From the energy the sun radiates a very small fraction reaches the Earth.



Energy sources

The "stores" of energy called "Sources of Energy" and divided into renewable and non renewable energy sources

