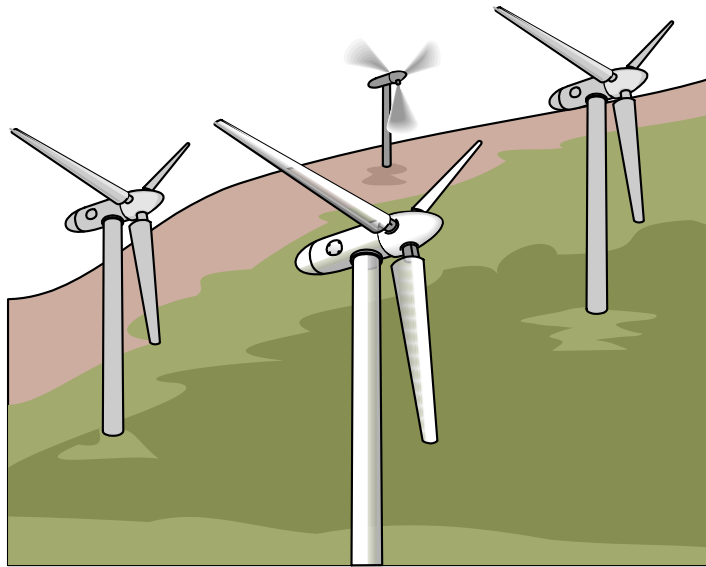


# Energy



# Energy

Definition-

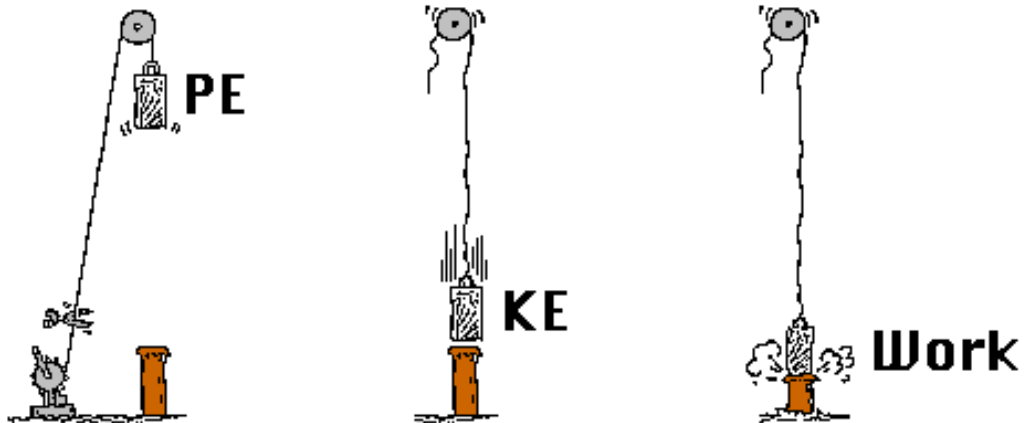
Types of Energy

Potential-

Kinetic-

Mechanical-





The ram of a pile-driver possesses mechanical energy – the ability to do work. When held at a height, it possesses mechanical energy in the form of potential energy. As it falls it possesses mechanical energy in the form of kinetic energy. As it strikes the spike, it applies a force to displace the spike – i.e., it does work on the spike.



# Kinetic Energy

$$KE = \frac{1}{2}mv^2$$

$$J = \frac{\text{kg} \cdot \text{m}^2}{\text{s}^2}$$

<http://www.physicsclassroom.com/Class/energy/U5L1c.html>



LIVING

# Potential Energy

(stored)

<http://www.physicsclassroom.com/Class/energy/u5l1b.html>

## Types

gravitational  
position

Chemical

mechanical  
elastic

electrical

nuclear

$$PE = mgh$$



# Law of Conservation of Energy

<http://webphysics.ph.msstate.edu/jc/library/6-6/index.html>



## Pendulum

<http://www.physicsclassroom.com/mmedia/energy/pe.htm>

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<http://www.myphysicslab.com/pendulum1.htm>

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# Practice

**potential  
energy** p.393 1-4

**Kinetic energy**  
p.395 1-3

**Assignment**  
**p 858 116-125**

