

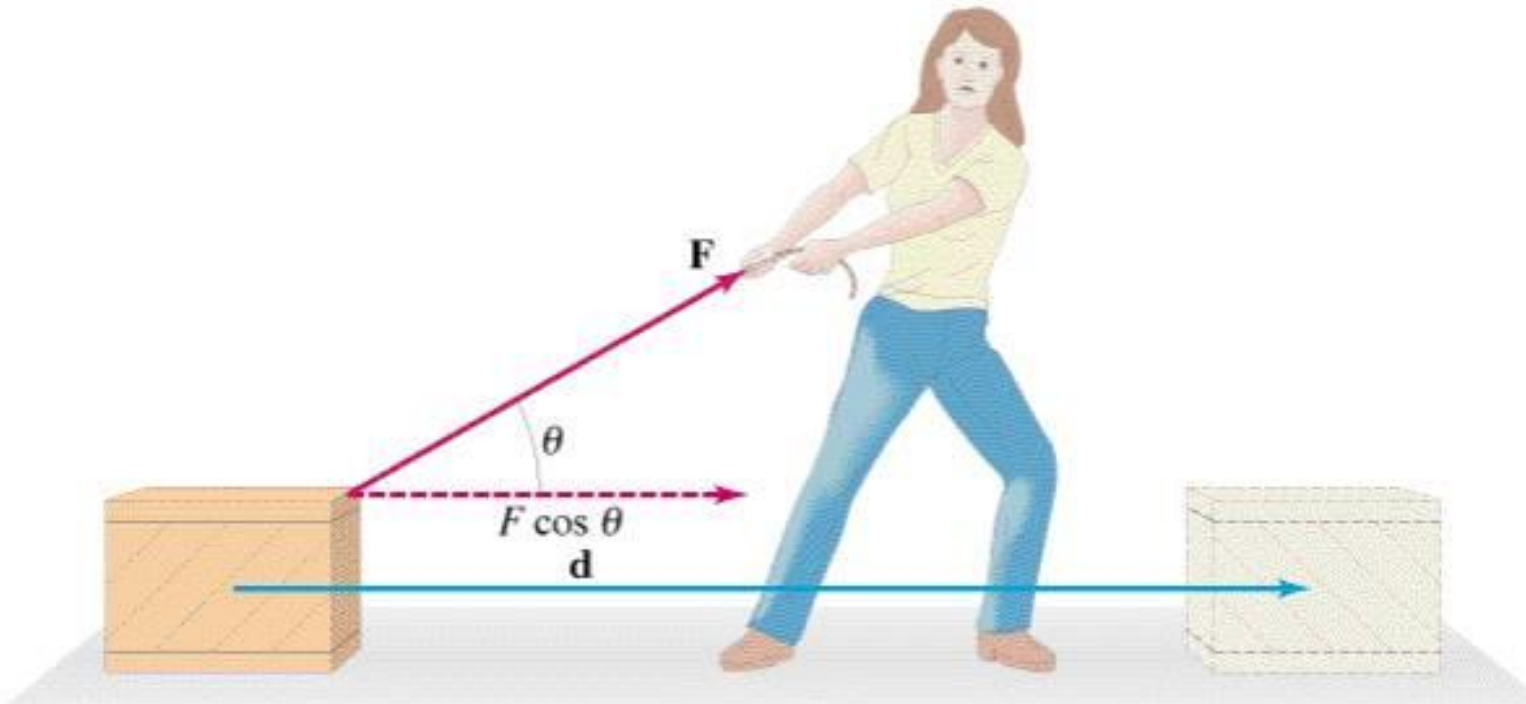
Energy

Potential
and
Kinetic

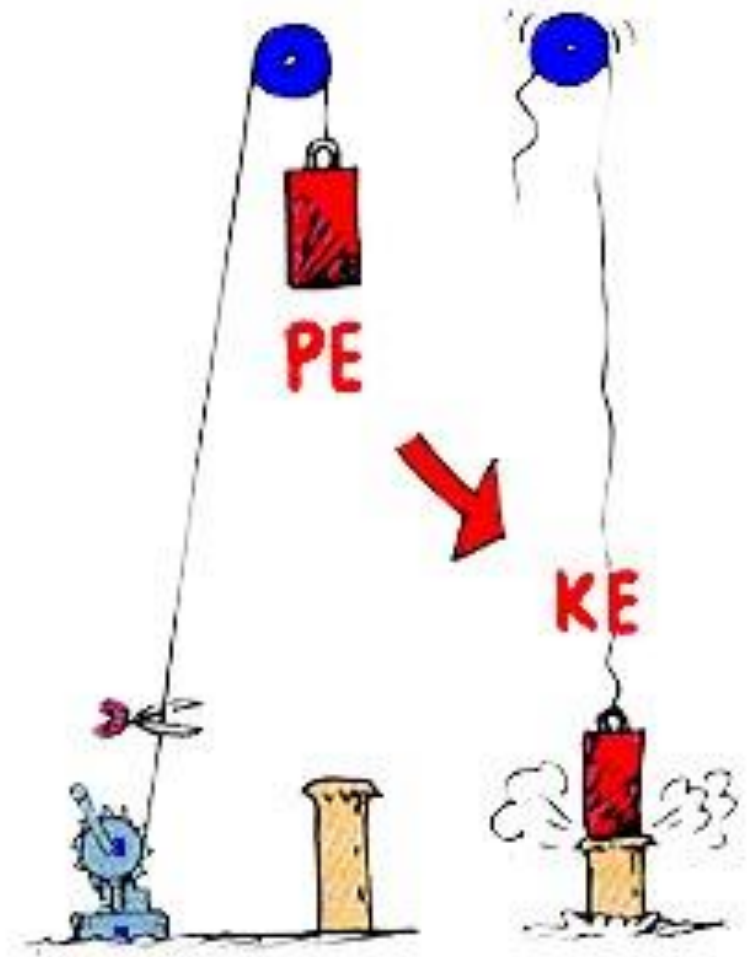


What is Energy?

- Energy is the ability to do work.
 - Work is done when a force causes something to move.



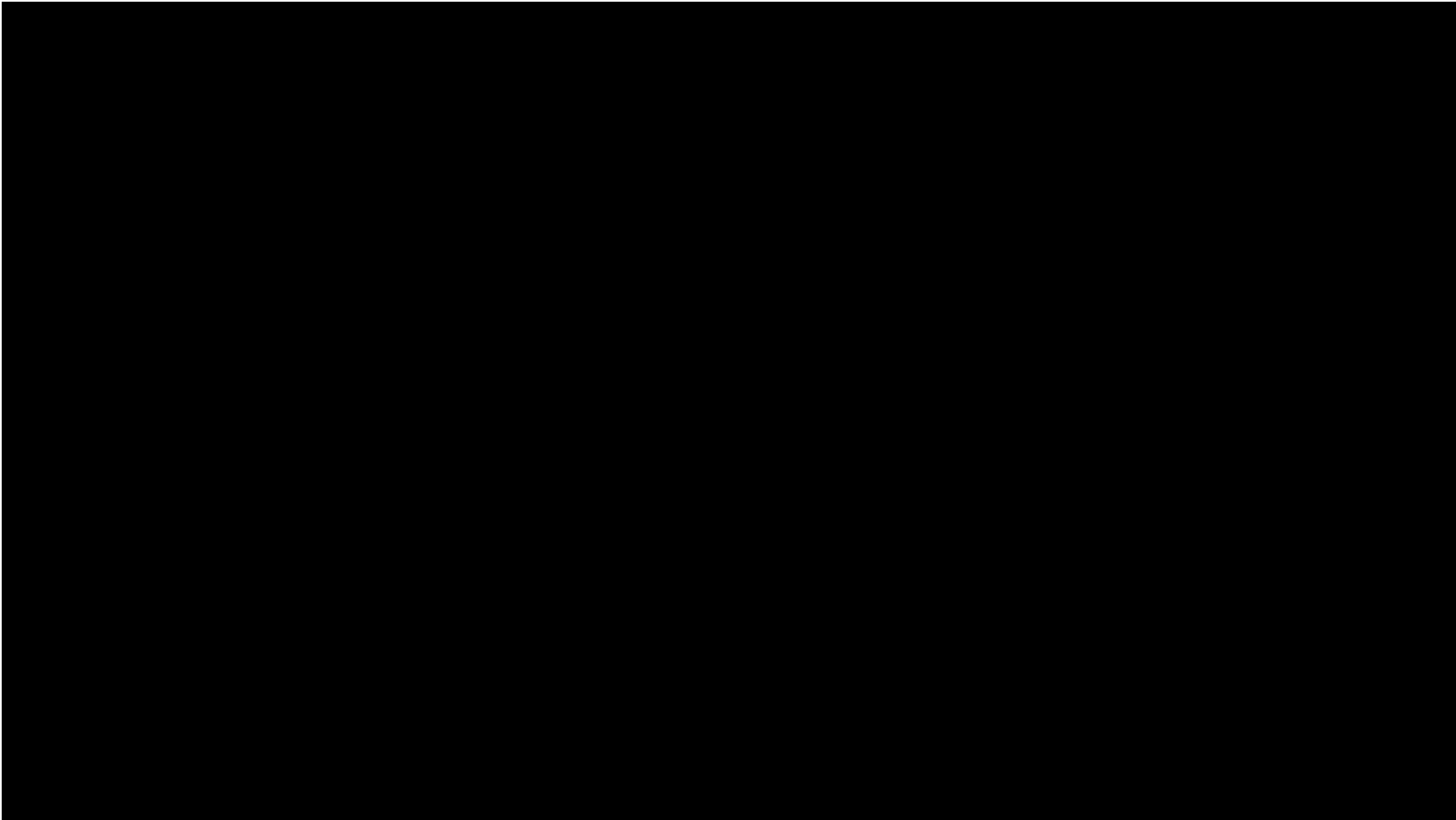
Two Types of Energy



1. Kinetic Energy

- The energy of a moving object due to its motion.
 - Objects with more mass and/or speed have more kinetic energy.





Examples of Kinetic Energy

1. A skier.
2. An arrow shot through the air.
3. A rollercoaster.



2. Potential Energy

- The stored energy of an object due to its position.

Gravitational Potential Energy (GPE) – any object that can fall has GPE.

-Higher objects have more GPE because they can fall further.

-Objects with more mass have higher GPE





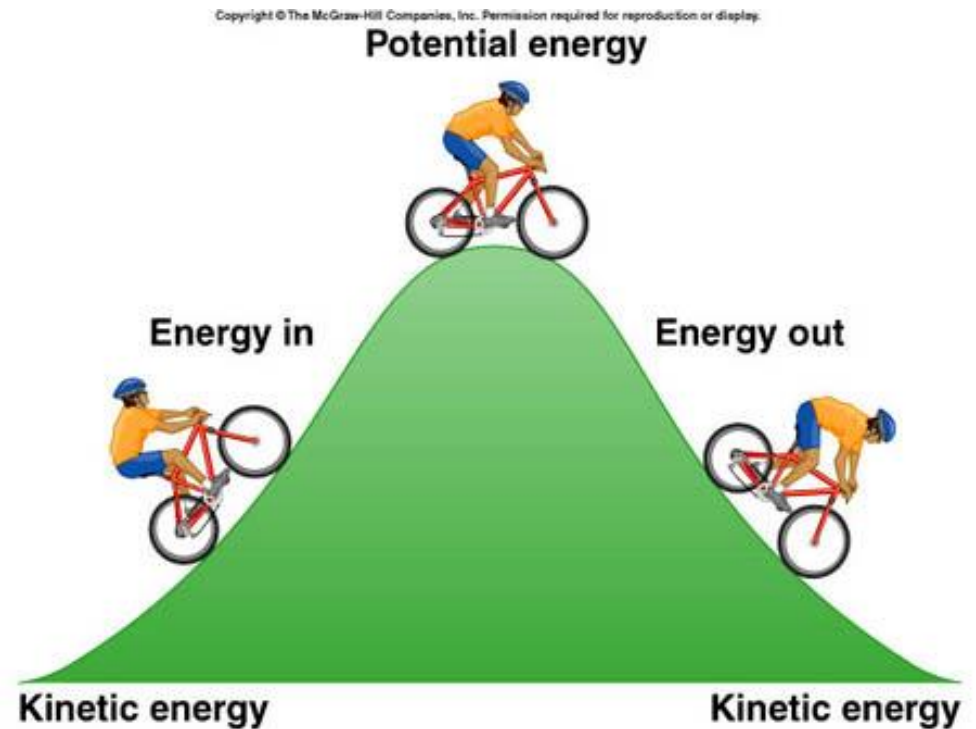
Examples of Potential Energy

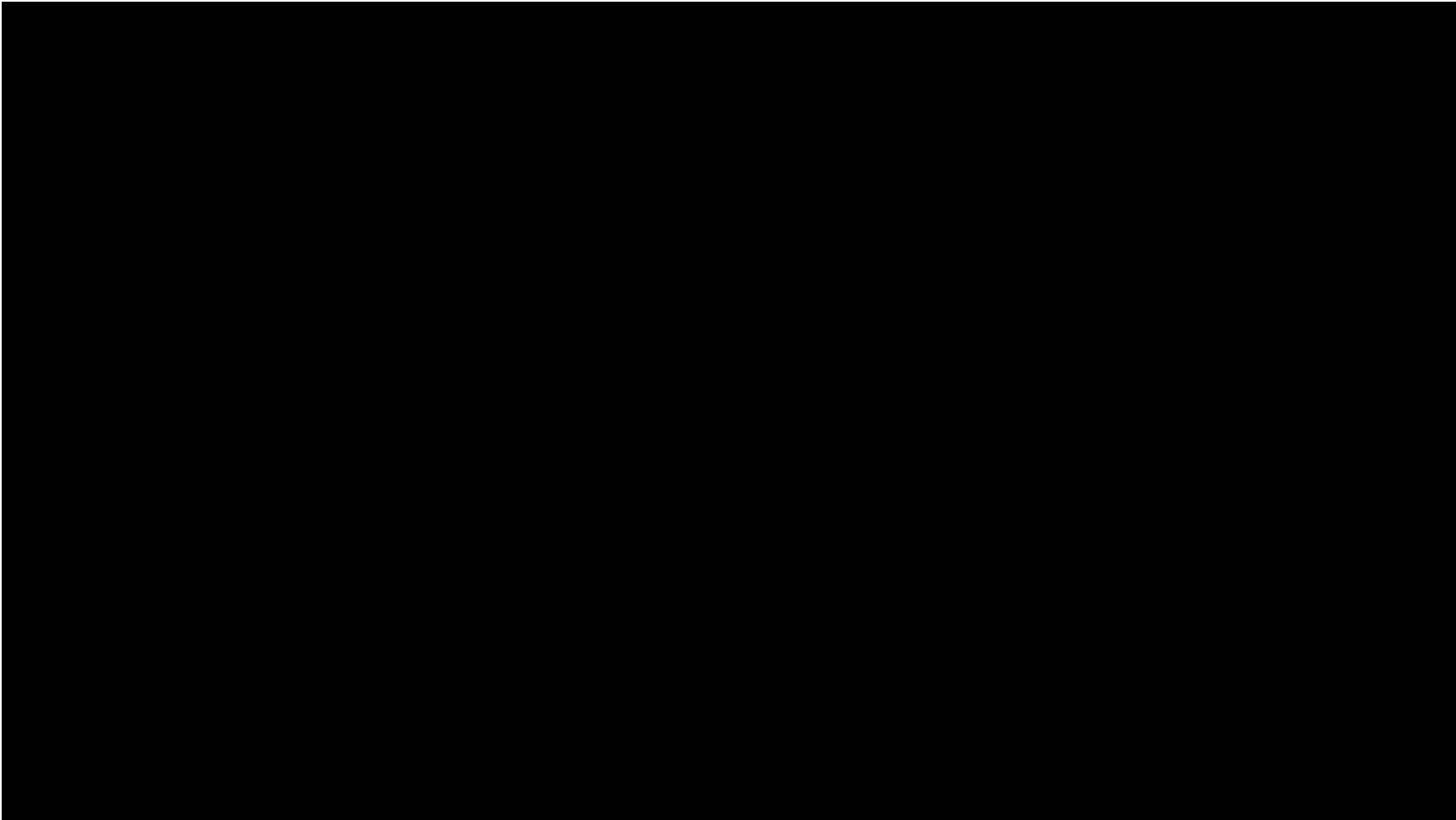
1. A coconut in a tree.
2. Skateboard at the top of a ramp.
3. A book on a bookshelf.



Kinetic Vs. Potential Energy

- Kinetic energy can be converted to potential energy and then back again depending on the object's position and motion.





Kinetic Vs. Potential Energy Example

- 100% Potential
- 0% Kinetic

- 50% Kinetic
- 50% Potential

- 100% Kinetic
- 0% Potential

