

Welcome to class 9

PHYSICS, CHAPTER-FOUR
WORK, POWER AND ENERGY.

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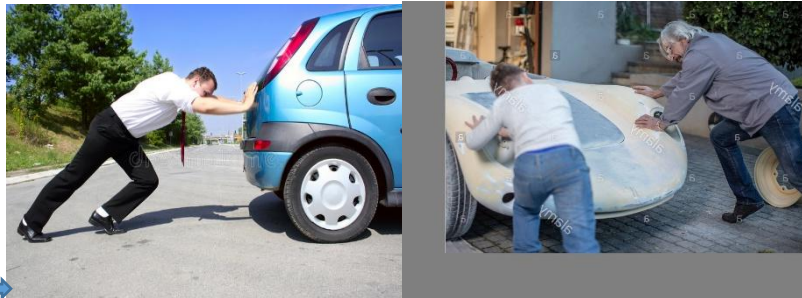
WHAT IS ENERGY?

We can define energy as the strength to do any kind of physical activity. Thus we can say,

“Energy is the ability to do work”

Doing positive work → Giving energy to the object.

Doing negative work → taking away energy from the object



Displacement →

← Displacement

Positive work, Force → negative work, Force ←

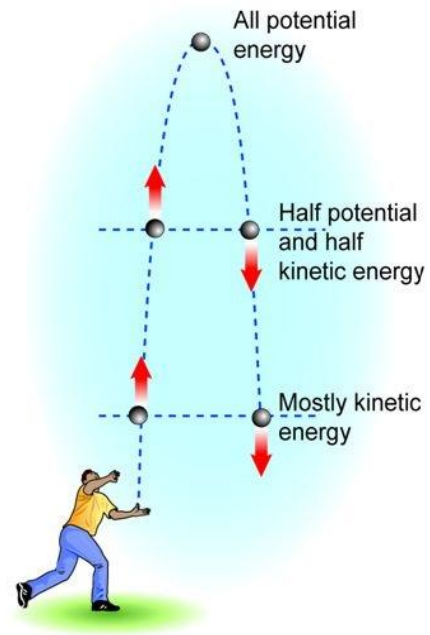
TYPES OF ENERGY

There are many types of energy. We will mainly discuss about two types of energy:

1. Kinetic energy (working)
2. Potential energy (static)

Energy converts from potential to kinetic

- When you throw a ball straight up in the air the ball leaves your hand with kinetic energy it gained while your hand accelerated it from rest.
- As the ball goes higher, it gains potential energy.
- The ball slows down as it rises so its kinetic energy *decreases*.
- The increase in potential energy is exactly equal to the decrease in kinetic energy.
- The kinetic energy converts into potential energy, and the ball's total energy stays the same.



H.W-

1. Definition of **Energy**.
2. What is **Kinetic energy**?
3. What is **Potential energy**?
4. Unit and dimension of **Energy**.
5. Solve example Text book pg101
6. Explain the law of conservation of energy.
7. What do you mean by kinetic energy 50 j of a moving body?
8. Make (5+5=10) M.C.Q from Work and Energy. (Watch the video 1st) + Quiz ans. [E-mail:pulok_142009@yahoo.com](mailto:pulok_142009@yahoo.com)