ODM EDUCATIONAL GROUP
Changing your Tomorrow

ENERGY

CHAPTER NO.3

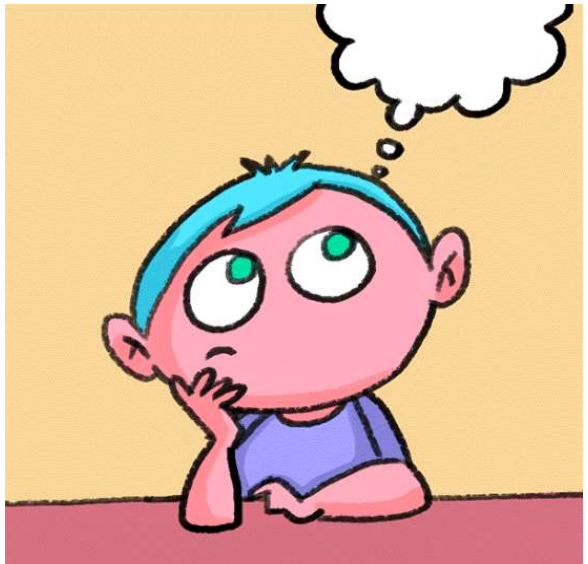
SUB: PHYSICS

Website: www.odmegroup.org
Email: info@odmps.org
Toll Free: 1800 120 2316
Sishu Vihar, Infocity Road, Patia, Bhubaneswar- 751024

LEARNING OBJECTIVE

Students will be able

- ✓ Define energy
- ✓ Know different types of energy



ODM EDUCATIONAL GROUP
Changing your Tomorrow

Different forms of Energy:

- **Mechanical Energy** – It is the sum of kinetic and potential energy of an object. Therefore, it is the energy obtained by an object due to motion or by the virtue of its location.

Example, a bicycle climbing a hill possesses kinetic energy as well as potential energy.

- **Heat Energy** – It is the energy obtained by an object due to its temperature. It is also called **Thermal Energy**.

Example, energy possessed by a hot cup.

- **Chemical Energy** – It is the energy accumulated in the bonds of chemical compounds. Chemical energy is released at the time of chemical reactions.

Example, energy possessed by natural gas and biomass.

- **Electrical Energy** – It is kind of kinetic energy caused due to the motion of electrons. It depends upon the speed of electrons. As the speed increases so does the electrical energy.

Example, electricity produced by a battery, lightning at thunderstorms

- **Light Energy** – It is the energy due to light or electromagnetic waves. It is also called as **Radiant Energy** or **Electromagnetic Energy**.

Example-energy from the sun

- **Nuclear Energy** – It is the energy present in the nucleus of an atom. Nuclear energy releases when the nucleus combines or separate. Therefore, we can say that every atom in this universe comprises of nucleus energy.

Example-uranium is a radioactive metal capable of producing nuclear energy in nuclear power plants

- **Sound Energy** – It is the energy produced by a substance as it vibrates. This energy flows through the substance in the form of sound waves.

Example-music instruments produce sound energy

- **Magnetic Energy –**a magnet can attract an iron nail from a distance and thus the force exerted by the magnet causes the nail to move towards the magnet. This energy is called magnetic energy.

Example-Electro magnet to lift iron, to separate magnetic and nonmagnetic substances

HOME ASSIGNMENT

Text Book Exercise

Q.1,2,3

THANKING YOU
ODM EDUCATIONAL GROUP

ODM EDUCATIONAL GROUP
Changing your Tomorrow