Daffodil International School (EV)

Subject – Science

Class-VIII

Chapter-2: Energy

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1. Read the chapter from TextBook.

Short Answered Questions:

1. What is work?

Ans. If an object is displaced in the direction of the force by applying a certain amount of force, only then it is considered that work has been done. So, work is the product of force and displacement.

Work= Force X the displacement

or, W= F xS

The unit of work is Joule.

2. What is called energy?

Ans. The ability to do work is called energy. It's unit is Joule.

3. What is conversion of energy?

Ans. The transformation of energy from one form to another is called conversion of energy.

4. Write the formula of gravitational potential energy.

Ans. The formula of gravitational potential energy = Gravitational force X displacement

= Weight X displacement

= Mass X Gravitational acceleration X displacement

E = mgh.

5. Write the formula of Kinetic energy.

Ans. Kinetic energy= work done on an object

or, E = W

or, E= FS

or, E= maS (Substituting F=ma)

We observed in the third equation of motion, $V^2= U^2+2aS$

$V^2=2aS$ (Starting from steady state, U= 0)

or, $aS=\frac{1}{2} V^2$

By substituting the value of aS in the equation E=maS, we get $E= \frac{1}{2} mv^2$