

## Chapter 11

### FORCE AND PRESSURE

#### KEY WORDS OR DEFINITIONS:

##### CONTACT FORCE:

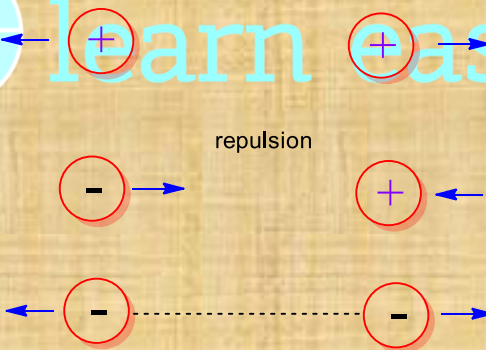
These forces are come into play when two objects in contact with each other.

Ex. Muscular force, Frictional force etc.

##### ELECTROSTATIC FORCE:

- Charges are responsible for electrostatic force

- Like charge [ $+, +$  or  $-, -$ ] repel each other



- Unlike charges are attract each other
- A charge can attract or repel another charge without contact that's why it is called non-contact force.

**FORCE:**

Force is the 'push' or 'pull', which arises due to interaction between objects.

- A force can change (or) tends to change the present state of rest or motion or shape of an object.

Units:

SI unit = Newton (N)

CGS unit = dyne

**FRictional FORCE:**

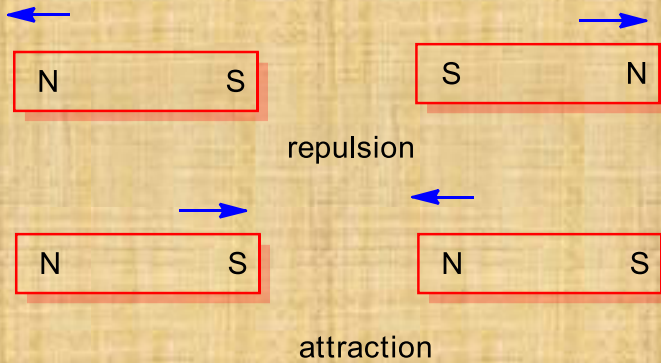
This force will come play when an object try to move on a rough surface.

**GRAVITATIONAL FORCE:**

Gravitational force is force between two masses like between earth and moon, earth and sun, earth and you, you and your friend, you and your pen also. But in these some are may be small due to less mass.

**MAGNETIC FORCE:**

A magnet can attract or repel another magnet without contact.



- N is called North pole, S is called south pole of magnet
- Like poles [N – N, S - S] are repel each other
- Unlike poles [N – S, S - N] are attract each other

### MUSCULAR FORCE:

The force come into play because of action of muscles is called Muscular force.

### NON-CONTACT FORCE:

“Force acting between two bodies at a distance”.

Ex. Magnetic force, Electrostatic force

### PRESSURE:

Force acting on unit area is called Pressure

$$\text{Pressure} = \frac{\text{Force}}{\text{Area}}$$