

CHAPTER 11

FORCE AND PRESSURE

Force could be a push or a pull.



A force arises due to the interaction between two objects.

Force has magnitude as well as direction.

A change in the speed of an object or the direction of its motion or both implies a change in its state of motion.



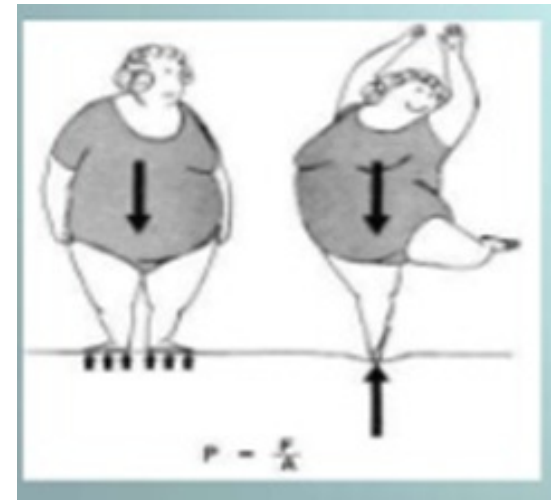
Force acting on an object may cause a change in its state of motion or a change in its shape.



A force can act on an object with or without being in contact with it

- **Contact force:** When the object exerting force touches the object on which force is exerted Example- Muscular force, Friction
- **Non-contact force:** When the force is being exerted without being in contact is called non-contact force. Example- Magnetic force, Gravitational force, Frictional force

- Force per unit area is called pressure.
- Unit of pressure is Pascal (Pa)
- Pressure depends on two factors
 - 1) Force
 - 2) Pressure



Pressure exerted by liquid

- Liquids and gases exert pressure on the base of their containers.
- Liquids and gases exert pressure on the walls of their containers.

Atmospheric Pressure

- The pressure exerted by air around us is known as atmospheric pressure.