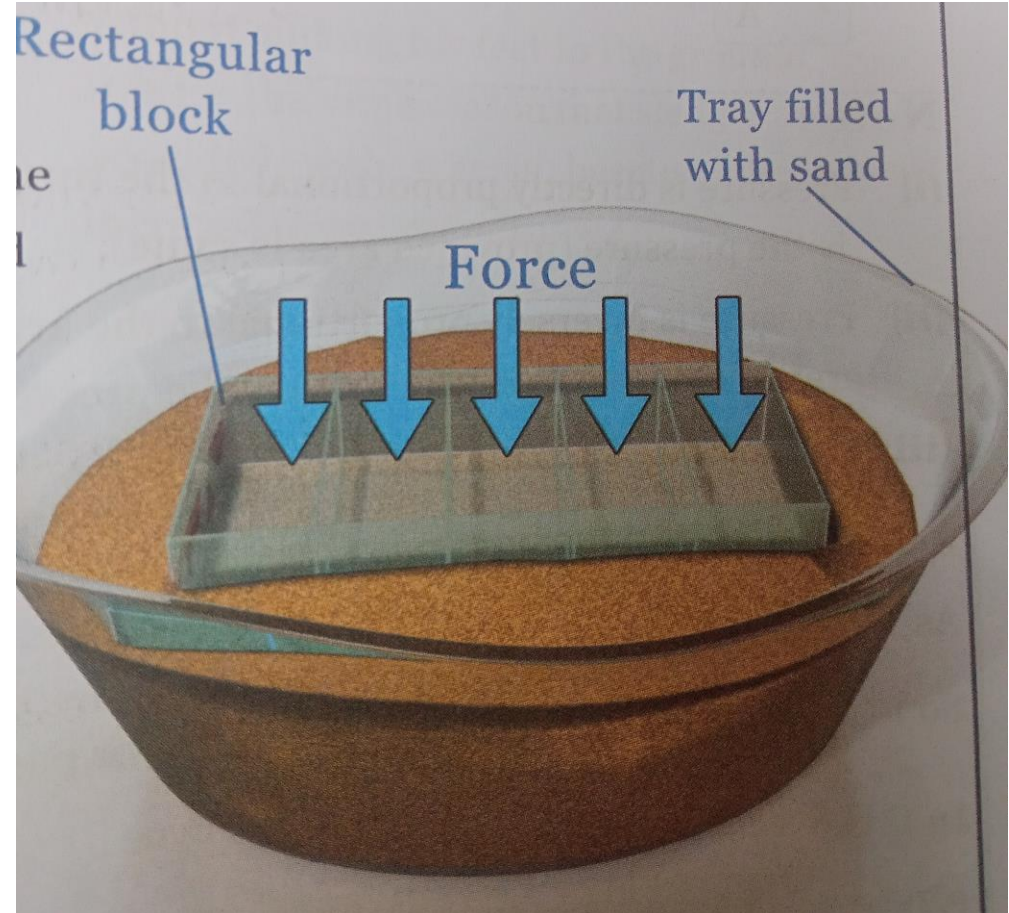


Ch-11: Pressure

Thrust:

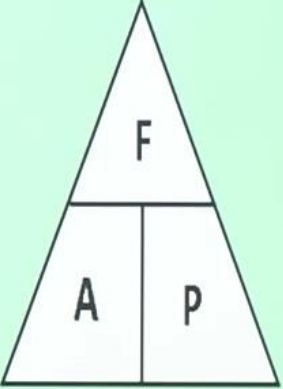
- When a body placed on a surface, the weight of the body acts downward and the force exerted by the body on the surface is equal to the weight of the body



Pressure

- The intensity of force on any object depends upon the area of application and the force applied.
- Unit: N /m², pascal (pa)

Force Area Pressure



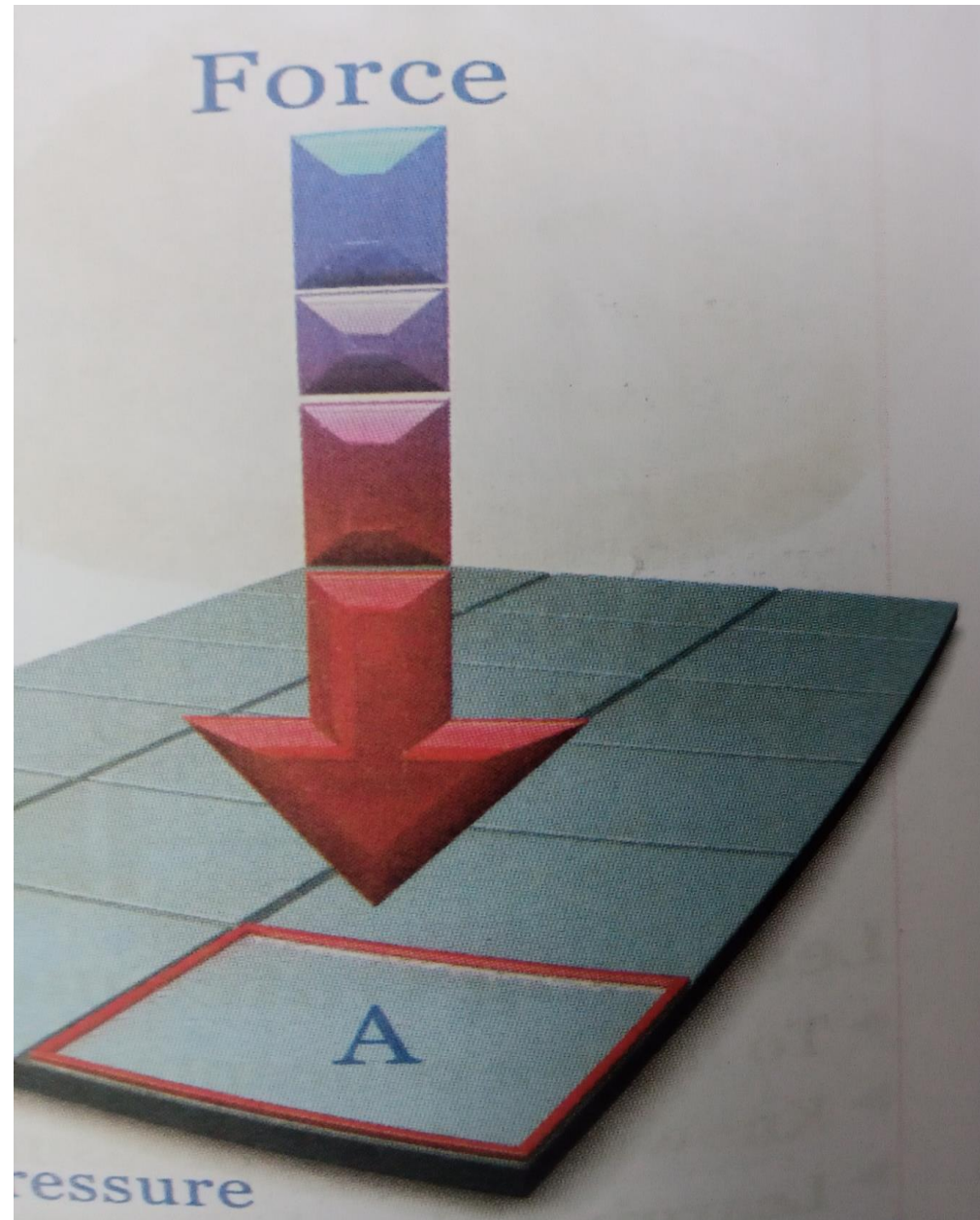
Pressure = $\frac{\text{Force}}{\text{Area}}$

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

Force = Area x Pressure

Pressure

- Force exerted per unit area
- $P = F / A$



Effect of force on an object:

- Depends on
 - Magnitude of force applied – greater the force, greater the effect
 - Area over which the force is applied – area of contact between the two objects

Applications of pressure:

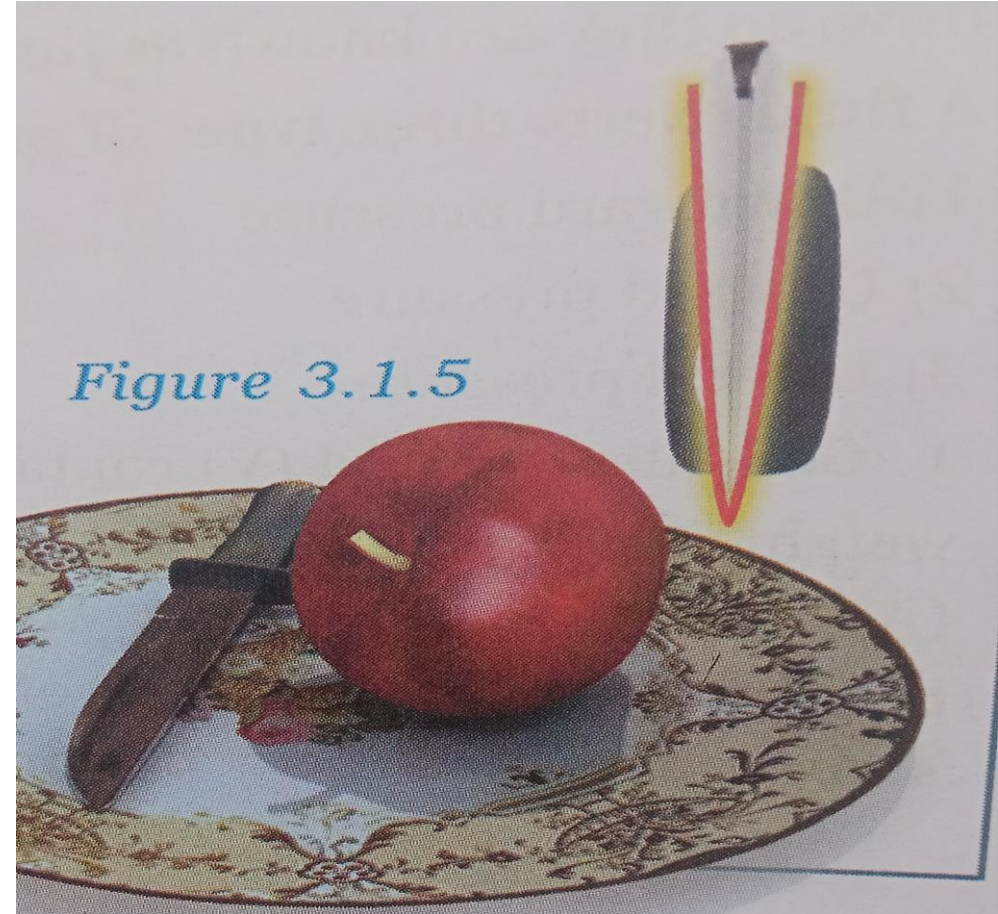
- Smaller the area over which the force acts, the greater is the pressure and therefore. The greater is the effect of the force



Applications of pressure:



Applications of pressure:



Thank
you !