

VIDYA BHAWAN BALIKA VIDYAPEETH

STUDY MATERIAL SCIENCE

CLASS-VIII

Date : 15-02-2021

Teacher : Poonam Kumari

▶ Force and pressure

Pressure :

The force acting perpendicularly per unit area on a surface is called pressure

Pressure = $\frac{\text{force}}{\text{area on which it acts}}$.

So if the applied force remains the same, the smaller the area on which the force acts, the greater will be the pressure felt on the surface in contact.

A sharp knife or the pointed tip of a nail effectively concentrates the force and makes the pressure acting on a tiny area of the surface extremely high.

Fact : A woman weighing 70kg and wearing shoes with high and pointed heels exerts a pressure of up to 1.150 kg on the floor