

VIDYA BHAWAN BALIKA VIDYAPEETH

STUDY MATERIAL SCIENCE

CLASS-VIII

Date : 21-02-2021

Teacher : Poonam Kumari

▶ Force and pressure

Atmospheric Pressure :

An idea of the magnitude of the weight of the air column above us can be estimated by using a simple rubber or plastic sucker often used to fix hangers to flat surfaces.

The sucker is fixed by just pressing it down on the flat surface when most of the air between the cup and the surface escapes and the sucker sticks to the surface.

Now if an attempt is made to pull the sucker off the flat surface it can be quite difficult. This is because, there is almost no air between the flat surface and the inside of the sucker cup.

Due to this, the sucker sticks to the surface since the pressure of atmosphere is acting on it, which is quite large. So to pull the sucker off the surface, the force applied has to be large enough to overcome the atmospheric pressure and implying a really strong pull.