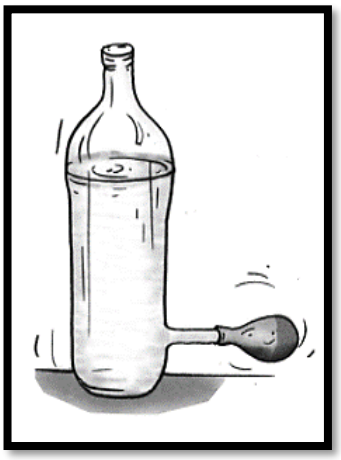
Force and Pressure

Thrust Due to Liquids

LIQUID PRESSURE

The normal force (or thrust) exerted by a liquid at rest per unit area of the surface in contact with it is called "pressure of liquid or hydrostatic pressure.



" Take some discarded plastic bottle and fix a glass tube near its bottom. It can be done by slightly heating one end of the glass tube and then inserting it near the bottom of the bottle. In case there is some leakage, your must seal it with molten wax. Now cover the free end of the glass tube with a thin rubber sheet. On filling the plastic bottle upto half with water, the rubber sheet fixed to the glass tube bulges. When more water is added in the plastic bottle, there is change in the bulge of the rubber sheet. Since the rubber sheet is fixed on the side of the container, it shows that water exerts pressure on the side of the container. In other words, liquids exert pressure on the walls of the container.

Liquids and gases are together called fluids.

Fluids exert pressure on all bodies immersed in them and on the walls of the container that holds them. The air inside the balloon exerts a pressure on the inner walls of the balloon.