

Principle of flotation

When a body is completely or partially immersed in a liquid, there are two forces which act on it :-

- i) The weight of the body W acting vertically downwards. This force has a tendency to sink the body.
- ii) The buoyant force of the ~~body~~ liquid F_b acting vertically upwards. The buoyant force is equal to the weight of the liquid displaced by the immersed part of the body. This force has a

tendency to move the body up.

This is why the buoyant force is also called as the upthrust.

Application of floatation

- i) floatation of an iron ship.
- ii) floatation of man.
- iii) floatation of ice on water.
- iv) Submarine
- v) Ice bergs
- vi) whales
- vii) Balloons.