

Chapter 10

GRAVITATION

PASCAL'S LAW:

➤ **Why objects float or sink when placed on the surface of water?**

- Take some water in a beaker. Take a piece of cork and an iron nail of the same mass. Place them on the water. The cork floats and the nail sinks.
- If the density of an object is less than the density of a liquid, it will float on the liquid and if the density of an object is more than the density of a liquid, it will sink in the liquid.

➤ **Archimedes Principle:**

- Archimedes' principle states that, when a body is partially or fully immersed in a fluid it experiences an upward force that is equal to the weight of the fluid displaced by it.'

➤ **Relative Density:**

- The relative density of a substance is the ratio of the density of a substance to the density of water. It is a ratio of similar quantities and has no unit.