**Fluid Mechanics**

**Section 8.1 - Fluids and the buoyant force**



**Section 8.1 Fluid Density**

Density is

**Mass density**

**Section 8.1 Buoyant Forces**

**Buoyant Force**

Act in a direction

When the object net force

**Buoyant Force:**

**Buoyant Force on a floating object**

Section 8.1 Relationships between weight of object and buoyant force

Can balloons lift a little girl of the ground?

**Section 8.2 Fluid Pressure**

**Pressure**.

**SI unit**

**Pascal's principle :**

**Hydraulic Lift**

**Absolute Pressure**

**Absolute pressure**

**Fluid Pressure**

This is the expression for Archimedes Principle

**Section 8.3 – Fluids in Motion**

* Ideal fluid is a fluid that \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ and is incompressible.
* \_\_\_\_\_\_\_\_\_\_\_\_\_ refers to the amount of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ within a fluid.
* \_\_\_\_\_\_ viscosity flows more \_\_\_\_\_\_\_ (caused by the friction of the fluid particles sliding past each other) – this is those intermolecular forces from chemistry
* Ideal fluids are “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” loses no kinetic energy due to friction as they flow. (\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_)
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
* Area and the speed of the flow in one area must equal the area and the speed in a another area = this is from conservation of mass.
* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Bernoulli’s Principle**