7.1 Pressure

Pressure is the force per unit area.

$$\text{Pressure}=\frac{Force(N)}{Area\ (\quad m^{\ 2})}$$

S.I unit for pressure is N/m^2 or Nm^{-2}
A pascal is the pressure developed when a force of 1N acts on an area of $1m^2$.
The smaller the area, the bigger the pressure.
For example: If you poke your skin with a pen tip, it will hurt more than if you try to poke it with a bottle cap. This is because the pen tip has less area than the bottle cap.

Pressure in liquids

Pressure= Density x Depth x Acceleration due to gravity
P= hρg

Whereby:
P is the pressure
h is the depth
$\rho(rho)$ is the density
g is the acceleration due to gravity

- The more the depth, the more the pressure.
- The more the density, the more the pressure.
- The pressure is more vertical because it has more depth than horizontal.

The S.I. unit to use for pressure in liquids is *Pascals (Pa)*.