MEASURING



Recall

Measuring length, area, volume and mass

P.F.C. Page 44 - 48: Vernier calipers, micrometer screw gauge Page 50 - 51: Measuring the volume of a liquid

<u>Density</u> (P.F.C. Page 52 – 54)

density = <u>mass</u> volume

(units: g/cm^3 , kg/m^3)

Relative Density (P.F.C. Page 54 - 55)

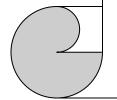
The relative density of a substance is the number of times it is denser than water. It can be calculated using the formula:

relative density = <u>density of substance</u> density of water

OR

= <u>mass of a certain volume of a substance</u> mass of equal volume of water alone

(has no units)



Simple Pendulum (P.F.C. Page 56 – 57: Measuring time)

Period (T)

This is the time it takes for the simple pendulum to complete one oscillation. We can calculate the period of a pendulum by using the formula:

$$T = 2\pi \frac{\sqrt{l}}{g}$$

where

l – length of the pendulum (units: metre)

g – acceleration due to gravity (units: $10m/s^2$)

T – period (unit: seconds)