

$$T(K) = \theta(^{\circ}C) + 273$$

$$E = m C \Delta \theta \quad E = mL$$

internal energy \rightarrow E
 mass \rightarrow m
 specific heat capacity \rightarrow C
 $\Delta \theta$ \rightarrow different for each material and its state
 L \rightarrow different for each material and its state

$$P V = \frac{1}{3} N m \overline{C^2}$$

Pressure \rightarrow P
 Volume \rightarrow V
 number of particles \rightarrow N
 mass of particle \rightarrow m
 $\overline{C^2}$ \rightarrow mean of the square of the velocity

$$\frac{P}{T} = \text{const} \quad \frac{V}{T} = \text{const} \quad PV = \text{const}$$

$$PV = nRT = NkT$$

\rightarrow Molar gas constant

$$\frac{1}{2} m \overline{C^2} = \left(\frac{3}{2} k \right) T$$

\rightarrow Boltzmann constant

$$\rightarrow k_e \propto T$$

Test: Monday 8th September