Topic 3C - Gases in Mixtures and Reactions

Dalton's Law: In a mixture of two or more ideal non-interacting gases, the total pressure is the sum of the individual partial pressures:

$$P_{total} = P_A + P_B + \ldots = (n_A + n_B + \ldots)\frac{RT}{V}$$

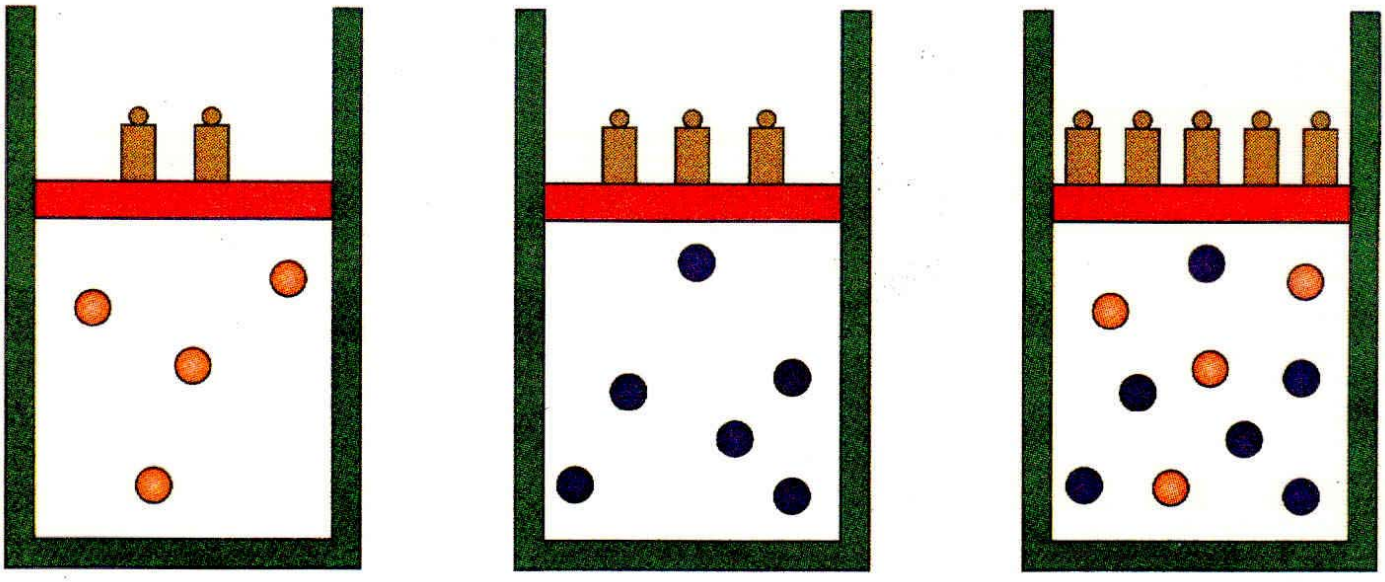

Figure 3-9

According to Dalton's law, the total pressure of a gas mixture (indicated here by the number of weights holding the piston in place) is the sum of the pressures exerted by the individual gases.