Name: Key Period: _____ Date: _____

Video Notes: Dalton's Law of Partial Pressures

BIG IDEAS	***DETAILS***
Pressure & Moles	Rearranged to solve for pressure, the ideal gas law is $P = \frac{nRT}{V}$ If temperature and volume are constant, P = n times a constant. So the 2-variable relationship between P and n is directly proportional. So doubling the moles doubles the pressure.
Combining Gases	Imagine you have 3 containers as shown. Sketch/label them: A: 10 moles, $P_A = 1.0$ atm B: 6 moles, $P_B = 0.6$ atm C: 4 moles, $P_C = 0.4$ atm If the gases from B & C are added to container A, you get: 20 moles P = 2.0 atm Remember - the TYPE of gas does NOT matter! Each gas in a mixture acts as if it were alone.
Partial Pressure	Partial pressure is defined as the pressure exhibited by each one of the gases in a mixture if they were in the container alone. Dalton's law of partial pressures tells us how they combine to create the total pressure: $P_{total} = P_A + P_B + P_C$ In words: the total pressure of a mixture of gases is equal to the sum of the partial pressures
SUMMARY	_____ _____ _____ _____ _____ _____ _____