Chemistry Ch. 10 All Terms

1.	**diffusion**	spontaneous, uniform mixing caused by particle motion
2.	**effusion**	process in which gas particles pass through a tiny opening into an evacuated chamber or space
3.	**Grahm's law of effusion**	states that the rate of effusion for a gas is inversely proportional to the square root of its molar mass
4.	**permeability**	the qualitative or quantitative measure of how easily a fluid can move through the spaces between particles in a substance
5.	**fluid**	substance that has the ability to flow and take the shape of its container; a liquid or a gas
6.	**compressibility**	the physical ability of a substance to decrease its volume to fit into a container
7.	**expansibility**	the physical ability of a gas to expand without a limit in an environment with a lower pressure
8.	**pressure**	average force exerted per unit area when molecules collide with a boundary
9.	**psi**	unit of pressure equaling 14.7 at its standard
10.	**barometer**	an apparatus that measures atmospheric pressure by allowing it to support a column of liquid
11.	**atm**	unit of pressure; one at the standard
12.	**Avogadro's law**	a law of gas behavior stating that the volume of a gas, at a constant temperature and pressure, is directly proportional to the number of moles of the gas
13.	**Boyle's Law**	P1V1 = P2V2; volume and pressure of gases are inversely proportional
14.	**Charles's Law**	V1/T1 = V2/T2; volume and temperature of gases are directly proportional
15.	**combined gas law**	a law of gas behavior that combines Boyle's, Charles's, and Gay-Lussac's laws at STP
16.	**Dalton's law of partial pressures**	a law of gas behavior stating that the total pressure of a mixture of gases equals the sum of the partial pressures of the constituent gases
17.	**Gay-Lussac's Law**	P1/T1 = P2/T2; pressure and temperature of gases are directly proportional
18.	**ideal gas**	a hypothetical gas whose behavior is exactly predicted by the kinetic-molecular theory
19.	**ideal gas law**	law of gas behavior that relates pressure, volume, temperature, and amount for an ideal gas; PV = nRT
20.	**law of combining volumes**	law of gas behavior formulated by Gay-Lussac's stating that the volumes of reacting gases and their products are expressed in ratios of small whole numbers
21.	**mmHg**	unit of pressure measured with mercury; 760 at the standard
22.	**molar volume**	the volume a mole of a gas occupies at STP
23.	**Pa**	unit of pressure; 101,300 at the standard
24.	**STP**	standard temperature and pressure; one atm and 273 K
25.	**torr**	unit of pressure; 760 at the standard
26.	**universal gas constant**	the constant R in the ideal gas law whose value and units depend on the units used for P, V, n, and T
27.	**vapor pressure**	the pressure exerted by a vapor in equilibrium with its solid or liquid state at a specified temperature