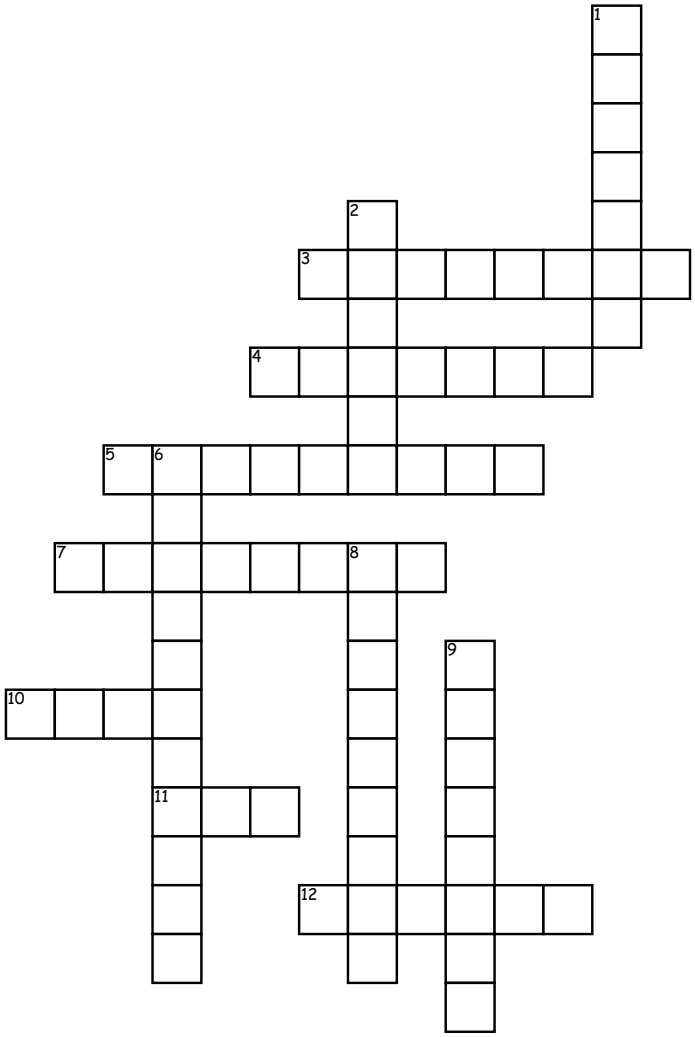
Name: _____

Gas Laws



Across

3. combines Charles' Law, Boyle's Law, Amonton's Law, and Avogadro's Law; P1V1n2T2 = P2V2n1T1

4. in a mixture of non-reacting gases, the total pressure exerted is equal to the sum of the partial pressures of the individual gases; P-total = P1 + P2 + P3 . . .

5. spontaneous mixing of particles through continuous, rapid, random motion

7. a theoretical gas composed of many randomly moving point particles that do not interact except when they collide elastically

10. a unit of pressure: equal to the pressure exerted by a column of mercury 1 millimeter high at 0°C

11. The temperature of 0°C and pressure of 1 atm

12. the amount of space that a substance or object occupies

Down

1. The principle that the volume of a given mass of an ideal gas is proportional to its temperature as long as its pressure remains constant.; V1T2 = V2T1

2. For a fixed amount of an ideal gas kept at a fixed temperature, pressure and volume are inversely proportional; P1V1 = P2V2

6. the equation of state of a hypothetical ideal gas; PV = nRT

8. equal volumes of all gases, at the same temperature and pressure, have the same number of molecules; the volume and amount (moles) of the gas are directly proportional; V1n2=V2n1

9. a force exerted by the substance per unit area on another substance

Word Bank

STP	Charles	Pressure	Boyles
IdealGasLaw	Diffusion	mmHg	Combined
Avogadros	IdealGas	Daltons	Volume