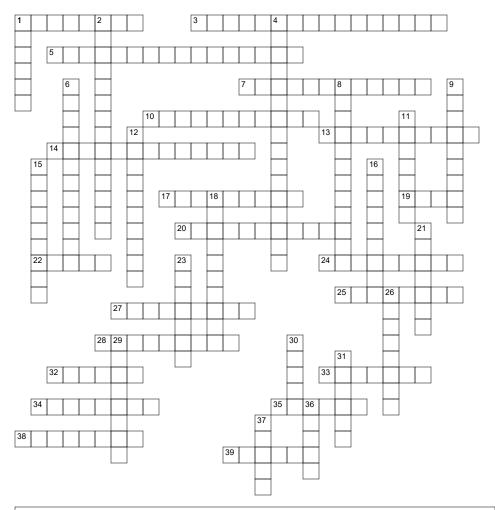
#### Gases



# Across

١.	At higher temperatures, gas particles have,	20.	v Olulli
	on average, a greater		propor
3.	The main theory of gas behaviour:	27.	Pressi
	theory (KMT)		propor
5.	The total pressure in a mixture of gases is	28.	A devi
	the sum of the for the gases in the		the lab
	mixture (plural)	32.	This s
7.	The of a substance in a mixture can		pressu
	be found by dividing moles of that substance	33.	Gases
	by the total moles (or partial pressure by		tempe
	total pressure)	34.	STP:
10.	The equation takes the ideal	35.	The al
	gas law and adds corrections to account for		negati
	real gases		
13.	Gases can be because of the relatively		A force
	large space between particles	39.	If the t
	KE = 3RT/2 (KE = average)		K to 40
17.	The bigger the of a gas, the slower		double
	the particles will move at a given temperature		
19.	Ideal gases don't exist; instead we		
	experience gases every day.		
20.	The only variable that determines the		
	average kinetic energy of gas particles		
	A gas described by KMT is said to be		
24.	The distribution shows how the		
	distribubtion of kinetic energies (or		

velocities) of gas particles takes the form of

a bell curve

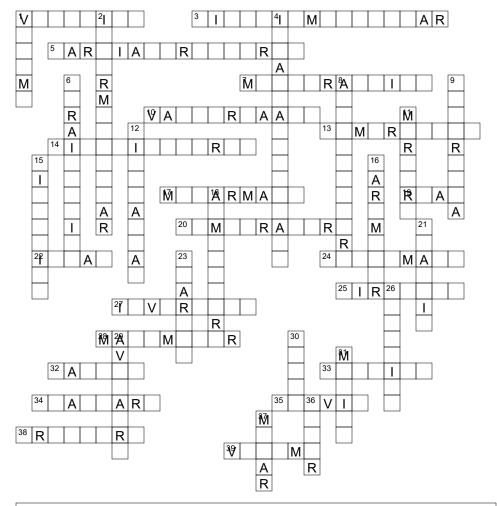
At higher temperatures, gas particles have

- 25. Volume and temperature of gases are \_\_\_\_
- 27. Pressure and volume of gases are \_\_\_\_ proportional
- 28. A device used to measure gas pressure in the lab
- 32. This scientist discovered how to find total pressure of gases in a mixture
- 33. Gases do not behave ideally at very \_\_\_\_ temperatures and \_\_\_\_ pressures (2 words)
- 34. STP: temperature and pressure
- 35. The absolute temperature scale has no negative temperatures it uses units called
- 38. A force acting over an area creates \_
- 39. If the temperature of gas doubles from 200 K to 400 K, the \_\_\_\_ of the gas will also double if other variables are held constant

## Down

- A postulate of KMT: gas
   particles are not just small ...
   they have no \_\_\_! Just points
   in space.
- A postulate of KMT: gas
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- 8.314 kPa-L/mol-K or 0.08206 atm-L/mol-K
- A graph of pressure and temperature for gases would take the shape of a \_\_\_\_\_\_\_\_\_\_
- 8. -273.15°C:
- A graph of presssure vs volume would take the shape of a \_\_\_\_
- Traditionally, a barometer was filled with liquid \_\_\_\_, which led to a common unit for pressure
- 12. A unit of pressure
- 15. Gases will spread out from areas of high concentration to areas of low concentration ... this is called
- 16. A device used to measure atmospheric pressure
- 18. A unit of pressure
- 21. A postulate of KMT: collisions between particles don't lose energy ... they are \_\_\_ collisions
- 23. This scientist studied the effect of changing temperature on the volume of a gas
- 26. A gas escaping through a pinhole opening into a vacuum outside
- 29. This scientist studied the relationship between the amount of gas and its volume
- This scientist studied the relationship between pressure and volume of gases
- 31. One of the postulates of KMT: Gas particles are in constant, random
- 36. Atmospheric pressure is \_\_\_\_ at the top of a mountain than at sea level.
- 37. At STP, 22.4 L is the \_\_\_\_ volume of any gas

#### Gases



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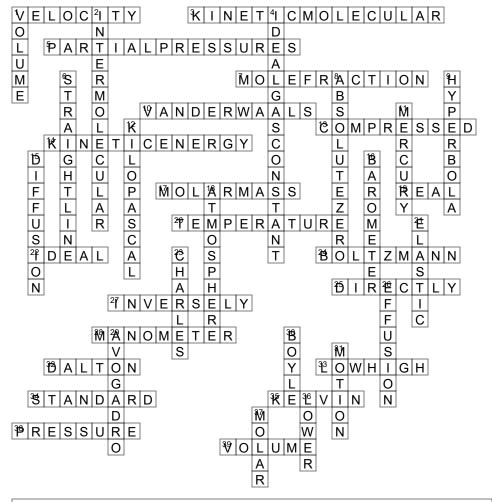
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