



States of Matter & The KMT:  
Gases

Name: \_\_\_\_\_

Period: \_\_\_\_\_ Date: \_\_\_\_\_

*KEY*

1. What statement is the basic assumption of the of the Kinetic-Molecular Theory of Matter (KMT)?  
***Particles of matter are always in constant motion.***
2. What causes the pressure exerted by a gas in a container?  
***Collisions of gas particles with each other and with the walls of the container cause pressure within the container.***
1. How could you increase the pressure of the gas without changing the container, or its size?  
***increase in temperature***  
***adding more gas particles***
1. Are gases compressible? Explain why or why not.  
***Yes. Because gas particles are so spread out, and mostly empty space, gases are very compressible.***
1. Compare and contrast diffusion and effusion. How are they alike, and how are they different?  
***Diffusion and effusion are both spontaneous processes. Diffusion is the mixing of two or more gases by spontaneous, random motion. Example: perfume diffusing throughout the room. Effusion is the movement of gas particles through a small opening—such as the very small openings in the surface of a balloon—causing the balloon to deflate over time.***

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