

## **It's a Gas.....Animations of Gas Behavior - Draft**

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**Purpose:** Students will animate gas behavior for three different scenarios of gases under various conditions. Students will be able to identify and describe various gas laws.

**Activity:** Using the chemsense animation tools, create an animation with at least 20 frames that depicts gas behavior for three different scenarios involving Hydrogen gas:

1. Students copy and paste the template provided which includes ten Hydrogen molecules( $H_2$ ) in a container. This will be the first frame.
2. Students will show the proper behavior of a gas in a closed container under the following conditions:  
*Scenario a)* volume of the container decreases due to a piston compressing down, while temperature of the gas remains constant.  
*Scenario b)* The temperature of the enclosed gas increases, as the container remains the same size.  
*Scenario c)* The temperature decreases as the pressure remains constant.
3. Students should show the proper movement of gas particles in relation to each other and the container.
4. Animation should be smooth and show the effects of changing variables( P,T or V)
5. Use the text tool to narrate and explain the gas behavior for each scenario. Be sure to include the text description in at least 5-6 continuous frames in order to read it easily during the animation.
6. Include your name, title and save to your account.

### **Discussion/ Analysis Questions:**

1. For each scenario, identify the Gas Law involved and state the relationship between variables involved.
2. How is a *decrease of temperature* illustrated in your animation? (describe using KMT)
3. How is an *increase of pressure* illustrated in your animation? (describe using KMT)