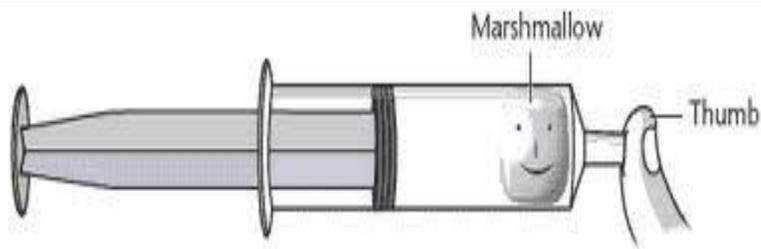


Gas Learning Station #1 (Boyle's Law)



Boyle's Gas Law: Plunger Out

What has happened to the marshmallow??

Place a mini marshmallow in a syringe. Push the plunger down just until it touches the top of the marshmallow. Put your finger over the tip of the syringe to form a vacuum seal. Now, pull up on the plunger.

What happens to the marshmallow? What is being decreased inside the syringe? What is being increased? What law is demonstrated in this example?

➤ Explanation of the law:

.....

➤ Rule/Relationship:

.....

➤ Draw a rough graph:



➤ Real life example(s):

.....

Gas Learning Station #2 (Gay-Lussac's Law)



What has happened to the soda can???

To an empty aluminum soft drink can, add a small amount of water (10 ml). Heat the can on the hot plate until the water boils, and "steam" comes out of the top of the can. Using a pair of tongs, quickly invert the can in a dish of cold ice water.

- Describe and illustrate what is happening?
- What law is demonstrated in this example?

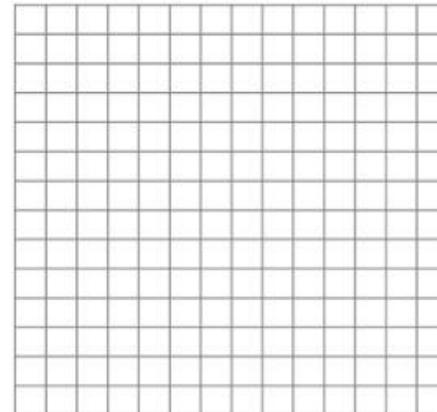
➤ Explanation of the law:

.....

➤ Rule/Relationship:

.....

➤ Draw a rough graph:



➤ Real life example(s):

.....

Gas Learning Station #3 (Charles's Law)



What has happened to the balloon??

Select a 125 mL flask and place approximately 50 mL of water in it. Securely place a balloon over the mouth of the flask. Place the flask on a hot plate and begin to heat the flask. Note what happens to the balloon.

- Describe and illustrate what is happening?
- What law is demonstrated in this example?

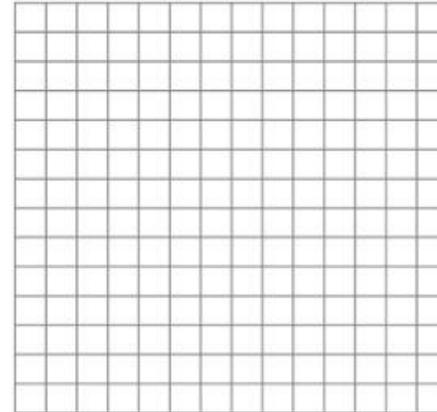
➤ Explanation of the law:

.....

➤ Rule/Relationship:

.....

➤ Draw a rough graph:



➤ Real life example(s):

.....

Gas Learning Station #4 (Charle's Law)



Magic with candles!!!

Light a tea light candle and place it in the center of a plate with colored water. Be careful not to turn off the candle. Then, place a larger jar over the candle - covering the candle.

- Describe and illustrate what is happening?
- What law is demonstrated in this example?

➤ Explanation of the law:

.....

➤ Rule/Relationship:

.....

➤ Draw a rough graph:



➤ Real life example(s):

.....

Teacher notes

“Gas Learning Stations?” (STEM ACTIVITY)

- Allow each group to visit the four Gas learning stations.
- Keep station cards for them to follow the instructions to conduct simple investigations. Also, provide them with above shown printed A2 sheet to record their responses.
- They will perform experiments to observe relation between any two of the following variables (P, T, V).
- They will observe the results and present their findings in the above shown format.
- Invite member(s) from each group to explain the experiment and present their findings to the class.
- They may use the smart board to summarize the three laws and their observations.