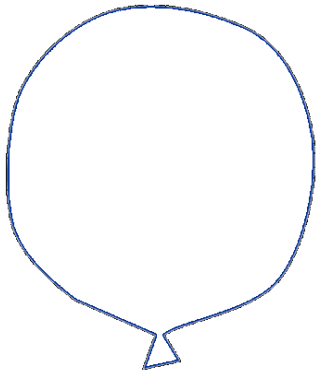
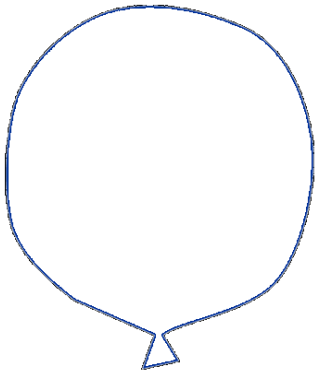
**Dougherty Valley HS Chemistry** **Name:**
**Guided Notes** **Date:**
*Boyle's Law – Pressure and Volume* **Period:**

- We want to find out how pressure and _____ are _____

- More _____ = More _____



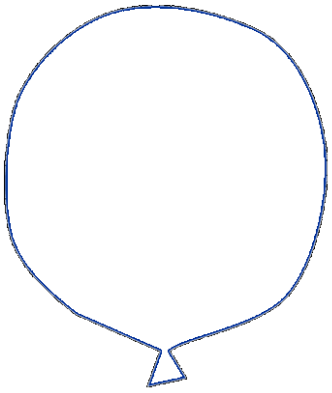
Balloon #1



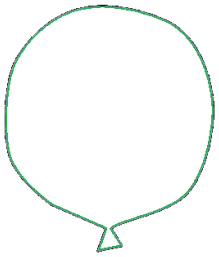
Balloon #2

Which Balloon has more pressure? Balloon #_____

- What happens if we change the volume?



Balloon #1

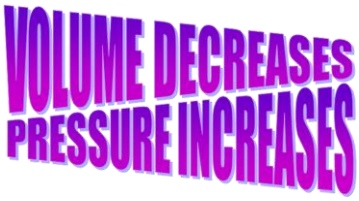


Balloon #2

Which Balloon has more collisions? Balloon #_____

Which Balloon has more pressure? Balloon #_____

- Therefore :
  Smaller Volume = _____!





- P $\alpha$ _____

- Boyle's Law

- Example #1
  You have a 0.75 Liter balloon filled with a sample of gas, under atmospheric pressure (760 torr). What will be the new volume if you put the balloon in a chamber and increase the pressure to 1000 torr?

  $P_1$ = _____ $V_1$ = _____

  $P_2$ = _____ $V_2$ = _____

- Example #2

  A sample of oxygen gas has a volume of 150.0 mL when its pressure is 0.947 atm. What will the volume of gas be at a pressure of 0.987?

  $P_1$ = _____ $V_1$ = _____

  $P_2$ = _____ $V_2$ = _____