Unit 8 NAME

Class Work 3/29/14

8.10 Factors Affecting Gases

SPARK: (take out 8.9 HW and make sure you have a calculator)

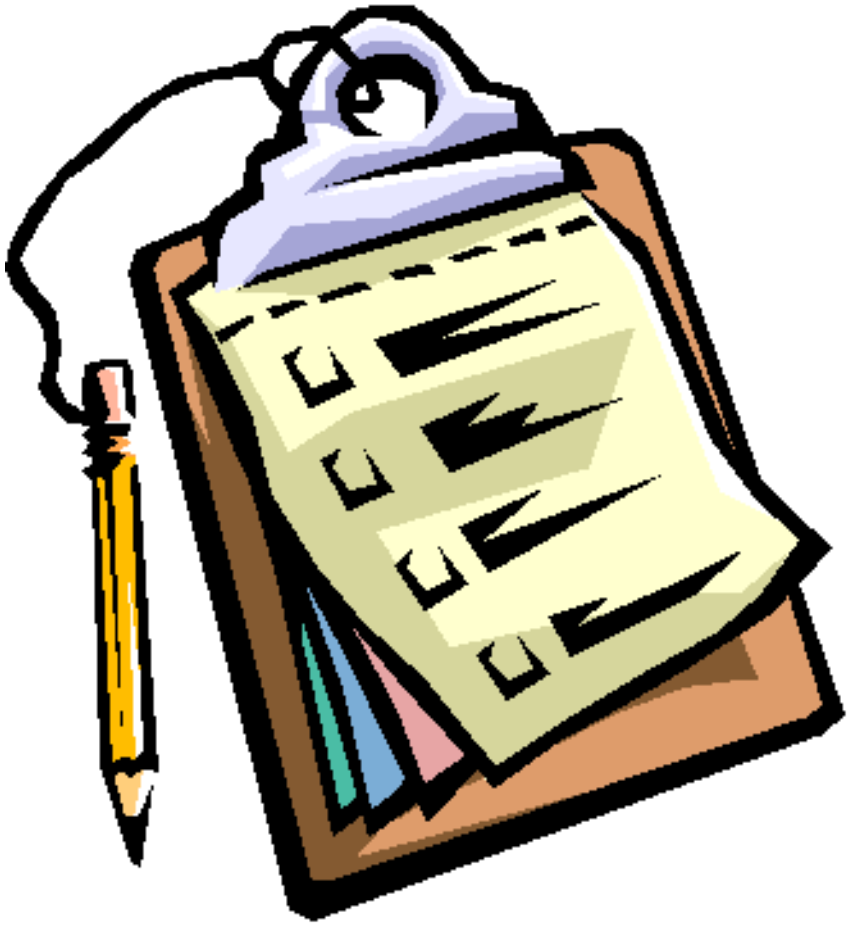
1. What is standard pressure?
2. Where on the reference sheet are the formulas for concentration?
3. What is volume?

Objective

SWBAT analyze how pressure affects volume in gases

Agenda:

- SPARK/Objective
- Grit to Greatness
- Hook
- Notes
- Practice
- Homework



Objective: SWBAT analyze how pressure affects volume in gases

Grit to Greatness!

- How can you demonstrate grit in the next week?
- And the Grit to Greatness winner is…

Objective: SWBAT analyze how pressure affects volume in gases

Where are we?

UNIT 8: Solutions and Gases

Solutions

Solute
Solvent
Saturation
Solubility
Polarity
Concentration

Colligative Properties:
Solutes that affect physical behavior of solvent

Boiling Point Elevation
Freezing Point Depression

Gases

Ideal Gases

Objective: SWBAT analyze how pressure affects volume in gases

HOOK

- Esther Conwell = Experimenter
  - Depress the plunger (push the syringe in) while hold the blue cap
- Marie Curie = Observer
  - Observe the marshmallow as the plunger is being pushed in and pulled out

Observations:

Objective: SWBAT analyze how pressure affects volume in gases

Why do you think this happened?

- Think-Write-Pair-Share

Objective: SWBAT analyze how pressure affects volume in gases

What is the relationship between pressure and volume?

- Think-Write-Pair-Share

Objective: SWBAT analyze how pressure affects volume in gases

Let's Apply This

This relationship has a name…

Boyle's Law:

$$P_1V_1 = P_2V_2$$

1 = initial

2 = final

Objective: SWBAT analyze how pressure affects volume in gases

Document Camera Guided Practice

Objective: SWBAT analyze how pressure affects volume in gases

Exit Ticket

- Complete your 8.10 Exit Ticket – 4 minutes
- Use your NOTES, not your neighbor!
- Flip your Exit Ticket over when you are finished

<u>Remember:</u>

G- given

U- unknown

E- equation

S- substitute

S- solve!

Objective: SWBAT analyze how pressure affects volume in gases

Closing Question

- Can you think of another way that this relationship can be tested or modeled?

  (answer on the back of your exit ticket)

- Choose one of these different ideas and describe what would happen if you did this.

Objective: SWBAT analyze how pressure affects volume in gases

HOMEWORK

Complete 8.10 Classwork/Homework Sheet!

- Watch video posted on the website for extra help!

Continue to work on your Unit 8 KEY QUESTIONS

- Due on Monday!

Finish your ThinkReady (due on Monday!)

Objective: SWBAT analyze how pressure affects volume in gases