Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_ Ast: \_\_\_\_\_

**IDEAL GAS BEHAVIOR NOTES**

1. What is an “ideal gas”?

**BOYLES LAW**

1. What does BOYLE’S LAW tell us?
2. How can we represent Boyle’s law mathematically?
3. Draw a rough graph showing the relationship between the pressure and volume of an ideal gas.

**CHARLES’S LAW**

1. What does CHARLES’S LAW tell us?
2. How can we represent Charles’s law mathematically?
3. Draw a rough graph showing the relationship between the volume and temperature of an ideal gas.

**GAY LUSSAC’S LAW**

1. What does GAY-LUSSAC’S LAW tell us?
2. How can we represent Gay-Lussac’s law mathematically?
3. Draw a rough graph showing the relationship between the pressure and temperature of an ideal gas.
4. Explain why a cotton ball will burst into flame in a fire syringe.

**AVAGADRO’S LAW**

1. What does Avagadro’s law tell us?
2. How can we represent Avagadro’s law mathematically?
3. Draw a rough graph showing the relationship between the volume and the amount of an ideal gas.
4. What is Avagadro’s Number (“Avagadro’s constant”)?

**IDEAL GAS LAW**

1. How is the ideal gas law related to the laws listed above?
2. What does the ideal gas law tell us?
3. How can we represent the ideal gas law mathematically?
4. What does each variable stand for in the ideal gas law formula?
5. Describe the relationships between the pressure, volume, and temperature of an ideal gas using the ideal gas law.