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

**PROPERTIES OF GASES STUDY GUIDE**

***Describe the behavior of ideal gases according to each of the gas laws below:***

1. Boyle’s Law –
2. Charles’s Law –
3. Gay-Lussac’s Law –
4. Avagadro’s Law –

***For an ideal gas, keeping all other variables constant, describe the relationship between:***

1. temperature and pressure
2. temperature and volume
3. pressure and volume

***For each real-life scenario, use the gas laws to explain the behavior of gases.***

1. On a cold morning, your parent starts up the car and the tire pressure light comes on signaling low tire-pressure.



1. You fill up two balloons with the same amount of air. You place one in sunlight for an hour and the other in your refrigerator for an hour; then you compare them to find that they are no longer the same size.
2. You are inflating balloons with helium for a birthday party. As you put more and more helium in the balloon, you see the balloon getting bigger and bigger.
3. You are inflating balloons with helium for a birthday party. You continue filling one balloon with helium until it pops.
4. You watch as a balloonist heats the air in a hot-air balloon, causing the balloon to inflate and rise.