Gas Laws

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| ***Teacher:*** | Ms. Athwal | ***Date:*** | Feb 3 – Feb 7 | ***Course:*** | Chemistry | ***Grade:*** | 11 |
| ***CA Standard(s):***  4c *Students know* how to apply the gas laws to relations between the pressure, temperature, and volume of any amount of an ideal gas or any mixture of ideal gases.  4h *Students know* how to solve problems by using the ideal gas law in the form *PV* = *nRT* | | | | | | | |
| ***Learning Objective (s):***  LT 5.8 – I can explain Charles Law, how it relates to temperature and volume, and I can calculate temperature and volume values for a given problem  LT 5.9 – I can explain Gay-Lussac’s Law, how it relates to temperature and pressure, and I can calculate temperature and pressure values for a given problem.  LT 5.10 – I can calculate the various properties of a gas using the Ideal Gas Law and the Combined Gas Law. | | | | | | | |
| ***Essential Question(s):*** How do I save my community? | | | | | | | |
| **Assessment**:   * Ideal Gas Law Exit Tickets * Unit 5 Quiz * Updated learning tracker logs | | | | | | | |
| ***Do Now***:   1. What do each of the 3 gas laws state? 2. A gas has a pressure of 0.370 atm at 50.0 °C. What is the pressure at 0 °C?   1. Calculate the number of moles of gas when a gas occupies 2 L at 4 atm and a temperature of 300 K. Note – R is 0.0821  2. Determine the volume of occupied by 2.34 grams of carbon dioxide gas at STP. **HINT** – You need to convert grams of CO2 to moles of CO2 using stoichiometry | | | | | | | |

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| **WHOLE GROUP/ DIRECT INTRUCTION** |
| * Ideal Gas Law * Unit 5 Review |

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| **SMALL GROUP STATION** |  | **COLLABORATIVE STATION** |  | **COMPUTER ASSISTED STATION** |
| Practice combining Boyles, Charles, and Gay-Lussac’s law in the idea gas law. |  | In lab groups complete the:  Hard boiled egg Lab to visually demonstrate the ideal gas law and Charle’s Law  Students will work in their lab groups through the [stations review packet](../../5.6/5.6.Stations%20Review.doc) to review for Monday’s Unit 5 exam. |  | Independently take notes on the ideal gas laws from my google drive  Blog each learning target from Unit 5 on my weebly [www.msathwalchemistry.weebly.com](http://www.msathwalchemistry.weebly.com)  Explain each concept as if you were teaching them to someone who has never taken a chemistry class. |