

## Gas Laws Lab Number 2: Avagadro's Law and Dalton's Law

### Introduction

Using Atomsmith Classroom Online, you will develop small experiments to test the validity of two laws. This will require you to use the "Live Lab" feature of Atomsmith Classroom Online – and to develop a method to test each law. Use "Ideal" gases within the Live Lab for this activity. Consider your controlled variables in each case – and how you can manipulate the Live Lab to test the law.

#### 1: Avagadro's Law

Equal volumes of all gases, when measured at the same temperature and pressure, contain an equal number of particles.

#### 2: Dalton's Law of Partial Pressure

The total pressure of a mixture of gases is equal to the sum of the partial pressures of each individual component of the mixture:  $P_{\text{total}} = P_1 + P_2 + P_3 + \dots P_n$ .

### Whiteboard Design

For each of the two laws, create a whiteboard that you can SHARE with the class. Write the law, as stated. The evidence will be your data and/or graph collected from Atomsmith Classroom Online. The explanation provides reasoning for the law, using scientific principles to support your conclusion.

Law:	
Our Evidence:	Our Explanation of the Evidence: