**Science Skills to Practice**

PP1: Scientific Questions

PP2: Prediction and Hypothesis

PP3: Major variables to control and test

PP5: Recording Observations

**Instructions**

The simulation *Gas Properties* allows you to manipulate and measure volume, pressure, temperature, the type and average speed of gas in a sealed container, and even the force of gravity.

First, take a few minutes to play with the simulation and get a feel for the controls and what they do.

**Scientific Investigation**

The first step in a scientific investigation is to write a testable question:

PP1 – Testable Question: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

Now, write a hypothesis in the If…then…because format:

 PP2 – Hypothesis: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

PP3 – Identify the variables for the investigation:

 Control Variables: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 Independent Variable: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

 Dependent Variable: **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

PP5 – Record the observations:

Quantitative Data (measurements)

Qualitative Data (descriptive – no numbers)

|  |
| --- |
|  |
|  |
|  |
|  |
|  |
|  |
|  |