

### Worksheet 5 – Design the Experiment

1. Design an experiment, a step-by-step list of what you will do to test the hypothesis. This list is called and **experimental procedure**.

- Keep things as simple as possible; include changes in the independent variable
- All other factors in the experiment should not change; they are **constant variable**.
- Determine in what way you are going to change the independent variable.
- Determine how you are going to measure the change in the dependent variable. Make sure that appropriate units are used.

In what way will your independent variable change? Give units and the device to measure? \_\_\_\_\_

How will you measure the change in your dependent variable? Give units and the device to measure. \_\_\_\_\_

2. Each experiment needs a “control” for comparison so that you can see what the change in the independent variable actually caused. The control is a standard to test your experimental results again.

What will the **control** be for your experiment?

3. Write a step-by-step procedure that:

- Lists materials and equipment needed. Make sure to specify the amount of each material in your procedure.
- Describes how the **control** is measured
- Describes in detail how the **independent variable** is changed and how the **dependent variable** is measured.