**Experimentation Vocabulary**

**Observation –** Gathering information using your 5 senses

**Example:** seeing, smelling, tasting, touching, hearing

**Inference –** An explanation about an observation based on opinion not fact

Example: Marshmallows are the best food in the world!

(Just because someone likes marshmallows doesn’t mean that they’re the best food in the world, or that they are good for you. It’s an opinion.)

**Hypothesis** – Making an educated prediction about the outcome of an experiment before

actually doing the experiment.

**Example: If** a plant is given fertilizer **then** it will grow taller than a plant without

fertilizer **because** the fertilizer provides the plant with nutrients.

**Procedure** – A series of ordered steps that explain how to perform the experiments; the

instructions.

Example: 1. Gather all materials.

2. Plant seeds in 20cm of soil.,,

**Control –** The experimental set-up that is not changed and is used as a comparison.

**Example:** Experimenting with 2 plants

**Plant A – no fertilizer = Control**

Plant B – fertilizer = Independent Variable

**Independent Variable –** The part of the experiment that is **changed** and tested in order to answer the experimental question.

**Example:** Experimenting with 2 plants

Plant A – no fertilizer = Control

**Plant B – fertilizer = Independent Variable**

**Dependent Variable –** The **effect** or **result** of the independent variable. What is **measured** in

your experiment.

**Example:** **Measuring** the **growth** of the plant to see if the fertilizer made it grow taller.

**Constants –** Factors (things) that you **keep the same** in an experiment between all the groups your are testing.

**Example:** Experimenting with 2 plants to see if adding fertilizer to one will make it grow taller. The independent variable would be the fertilizer. The dependent variable would be measuring how tall it grows, and these would be the controls: Both groups would have…

1. Same type of plant
2. Same type of container
3. Same type of soil
4. Same amount of water
5. Same amount of sunlight

**Data –** Information collected while experimenting that can be measured in numbers or

observations.

Example: 33cm, 37 cm, 22 cm.

OR “The plant is green with red spots”

**Conclusion –** Writing a response to an experiment that answers the experimental question. It

includes data collected while experimenting to support the answer.