

## Scientific Method Study Guide

List the 6 steps of the scientific method, in order. Know the details of each step.

1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

4. \_\_\_\_\_

5. \_\_\_\_\_

6. \_\_\_\_\_

**Be able to state a problem, discuss how to do background information, write a hypothesis, IV, DV, CC, design and conduct an experiment & write a thorough conclusion.**

**Be able to construct a data table and a graph, either line or bar.**

Write a definition for the following terms, in your own words:

1. Independent variable \_\_\_\_\_

\_\_\_\_\_

2. Dependent variable \_\_\_\_\_

\_\_\_\_\_

**You want to know if the amount of food coloring will effect the color of the flower.**

Question: \_\_\_\_\_

Hypothesis: \_\_\_\_\_

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

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

Constants: 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

**You want to know if the type of candy will effect how many students stay after school for Hawk Club.**

Question: \_\_\_\_\_

Hypothesis: \_\_\_\_\_

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

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

Constants: 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

**Number of People Who Stayed Due to Candy**

	Trial 1	Trial 2	Trial 3	Average
Twix	18	12	16	
Shockers	9	12	8	
Jolly Rancher	2	5	6	

**Use graph paper to graph the average. There are 7 parts to label.**

Write a conclusion for this experiment. (You have to find the average.) \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Write a testable question and a hypothesis for each of the following investigations. (Be sure your IV and DV are in each one.)**

1. You want to know if homemade cleansers as effective as commercial cleansers.

Question: \_\_\_\_\_

Hypothesis: \_\_\_\_\_

2. You want to know which color of light causes green beans to grow best.

Question: \_\_\_\_\_

Hypothesis: \_\_\_\_\_

3. You want to know which foods does fungi grow best.

Question: \_\_\_\_\_

Hypothesis: \_\_\_\_\_

4. You want to know if different types of liquids affect fruit-fly growth.

Question: \_\_\_\_\_

Hypothesis: \_\_\_\_\_