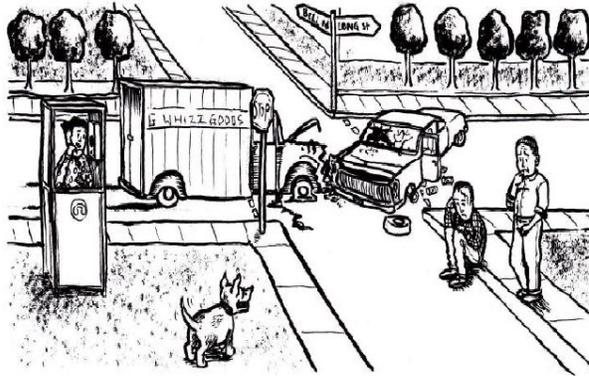


# Scientific Method Study Guide

1. The first step in the Scientific Method is to ask \_\_\_\_\_.
2. This is called the \_\_\_\_\_.
3. \_\_\_\_\_ is the step in which scientists gather information and existing knowledge about the topic they investigate before they form a \_\_\_\_\_, or educated prediction.
4. What is the correct **format** for writing a hypothesis?  
\_\_\_\_\_
5. The **independent Variable** is the factor that \_\_\_\_\_ in the experiment.
6. The **dependent Variable** is we \_\_\_\_\_ in the experiment.
7. The **constant/control variable** is the factor that \_\_\_\_\_ in the experiment.
8. \_\_\_\_\_ are the steps you will follow in your experiment.
9. The \_\_\_\_\_ is a list that contains everything you will need to conduct your experiment.
10. Data gathered in the form of **numbers and measurements** is \_\_\_\_\_ Data.
11. Data gathered using **general observations using your 5 senses** is \_\_\_\_\_ Data.
12. \_\_\_\_\_ are assumptions or conclusions drawn based on observations.
13. \_\_\_\_\_ are based on facts collected from your 5 senses.

Write 2 Observations and 2 Inferences based on the picture below.



Observation 1: \_\_\_\_\_

Inference 1: \_\_\_\_\_

Observation 2: \_\_\_\_\_

Inference 2: \_\_\_\_\_

14. In the \_\_\_\_\_ you will write about how your hypothesis was supported or not supported.

15. In the following experiment, identify the **independent**, **dependent** and **control** variables:

**Does the temperature of the water affect how fast the colored coating of an M&M dissolves?**

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

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

16. In the following experiment, identify the independent, dependent and control variables:

**Does the type of ball affect the distance a ball will travel when going down a three foot ramp?**

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

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