**Scientific Method**

**Guided Notes**

* **There are 6 steps**

1. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
2. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
3. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
4. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
5. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
6. **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Purpose**

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the reason or point of doing the experiment.

**Problem**

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ you are trying to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

It may also be an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ you have made that you are trying to \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_.

**Research Questions**

These are \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that you come up with when trying to figure out the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the experiment.

Your first research question should be the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ question. You must answer these using \_\_\_\_\_\_\_\_\_\_\_\_\_\_ evidence.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is where you find out about your topic.

You can do research in various ways. Name ways to research a topic.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Research has to come from a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ source. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is NOT a reliable source.

You must \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or cite your source.

**Hypothesis**

An \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_.

Your educated guess must be based on \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Procedures**

You must have step by step \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ explaining how to do the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Someone else should be able to \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

You must test your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

Experiments must have a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ group.

They also must contain \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to assure accuracy.

You must have \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variables and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variables.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_– Variables that are kept the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ throughout experiment; part of experiment used to compare to

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ – Factors that can or do \_\_\_\_\_\_\_\_\_\_\_\_\_ during an experiment

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable – Factor \_\_\_\_\_\_\_\_\_\_\_\_ by the experimenter to test the hypothesis (\_\_\_\_\_ change)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable – Factor that changes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable; measureable (data)

**Variable Example**

A scientist studies how many days people can eat soup until they get sick. What is the dependent and independent variable?

The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ variable is the number of days of consuming soup. The \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_variable is the onset of illness.

**Data/Results**

Record your \_\_\_\_\_\_\_\_\_\_\_ as you do your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_. This may be a \_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_, etc.

After you complete an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, you must look at the \_\_\_\_\_\_\_\_\_ collected and decide if it \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

**Conclusion**

Your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ states whether your \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ was correct or not.

You need to tell me why you were \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or \_\_\_\_\_\_\_\_\_\_\_\_\_\_.