**Scientific Method**

**What is the scientific method?**

It is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that is used to find \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to questions about the world around us.

**Is there only one “scientific method”?**

No, there are several versions of the scientific method. Some versions have more \_\_\_\_\_\_\_\_\_\_\_, while others may have only a few. However, they all begin with the identification of a \_\_\_\_\_\_\_\_\_\_\_\_\_\_ or a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to be answered based on observations of the world around us and provide an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ method for conducting and analyzing an experiment.

**What is a hypothesis?**

It is an \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_ based on observations and your knowledge of the topic.

**What is data?** It is \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ gathered during an experiment.

**Steps of the Scientific Method**

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What do you want to know or explain? Use observations you have made to write a question that addresses the problem or topic you want to investigate.

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What do you think will happen? Predict the answer to your question or the outcome of the experiment.

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How will you test your hypothesis? Develop a procedure for a reliable experiment and address safety rules.

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Follow the steps in your procedure to perform your experiment. Record data and observations!

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Is the data reliable? Does your data and observations from the experiment support your hypothesis?

Yes No

Is your data inaccurate or the Yes \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

experiment flawed? Rewrite your procedure to address

the flaws in the original experiment.

No

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Write a conclusion that summarizes the important parts of your experiment and the results.