

Review Scientific Method



Has 7 steps

1) Ask a **Question** (It must be **Testable**)

-Include "Which", "Do/Does", "How", "What", "Why"?

-To find an answer you must do a test and the retest

2) Make a **Hypothesis** - Write what you think you will find out, and why you think this.(or what you think the answer will be). Is there a way to test your hypothesis.

-You now have to design an experiment to test your hypothesis

A hypothesis is an educated guess for what will happen in your experiment.

3) **Design an Experiment** - what are you going to do to test your hypothesis. Here you must state the variables. (SEE NEXT PAGE)

4) **List Materials** - list all the materials that you will use in the investigation

5) **Procedure** - Carry out the investigation and make a detailed list of steps in which you followed .

6) **Results/observations** - Record what you observed when you carried out the investigation/procedures

7a) **Conclusion** - From what you observed how would you answer your original question. Was your hypothesis correct? Give reasons of why or why not.

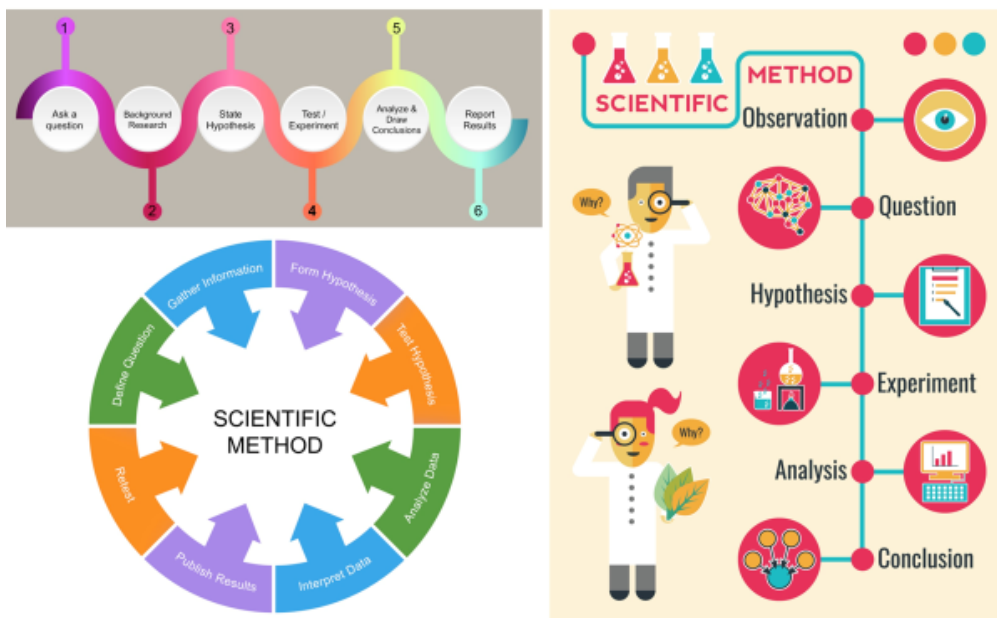
Once you have completed the scientific method you must:

7b) -**Communicate** your results and conclusions with others

- If possible, **relate** what you have learned to the world outside the classroom.

This slide shows three versions of the scientific method from different sources.

Compare / Contrast & Judge



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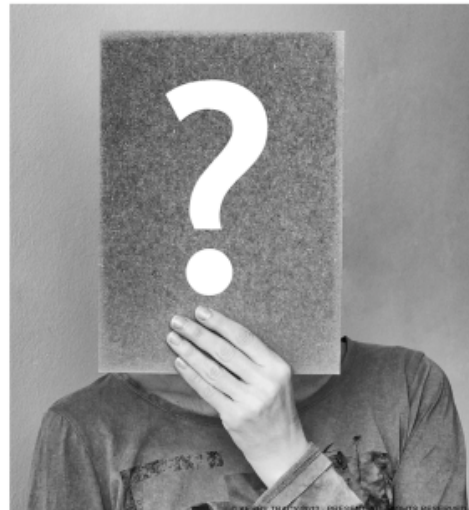
- Discuss with a partner how they are the same and how they are different from each other.

The Scientific Method

① Ask a question or state a problem

This step is the inspiration for an experiment.

It is curiosity that drives the desire to learn.



I wonder why the grass is wet every morning.

What causes cancer, and what can be done to stop it?

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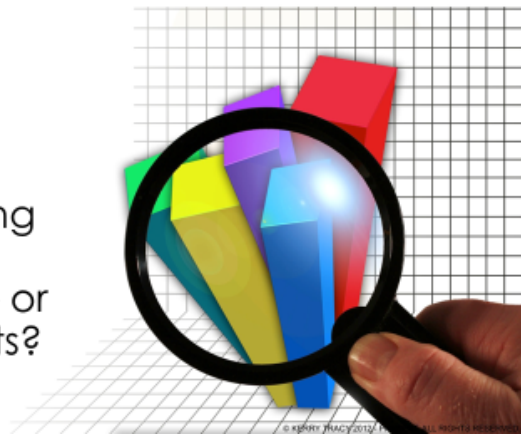
Background research is done to help lay the groundwork for developing a hypothesis and designing the experiment procedure.

When you know a something about your topic, it helps you create and conduct a more effective experiment.

The Scientific Method

Ask yourself:

- What patterns do I see?
- What do the results mean?
- What can be learned?
- How can the learning be applied or extended in real life or in future experiments?



Note: Your hypothesis may be:

- **correct**
- **partially correct**
- **or incorrect**

Attachments

Variable relations (direct, indirect) WS Notes.docx

DataAnalysisGr 7 TPT MAr 23.zip