

WHOOOA BIG SAFETY ISSUE!



Scientific Method

Overview of the Scientific Method

The scientific method is a process for experimentation that is used to explore observations and answer questions. Scientists use the scientific method to search for **cause and effect** relationships in nature. In other words, they design an experiment so that changes to one item cause something else to vary in a predictable way.

Just as it does for a professional scientist, the scientific method will help you to understand makes a scientific experiment inquiry valid.

But first let us review the steps of the Sci. Meth.

“Complete supportive class notes”

- See worksheet (Scientific Method notes outline)

Quizlet link

- <https://quizlet.com/3011541/the-scientific-method-and-parts-of-an-experiment-flash-cards/>

hypothesis

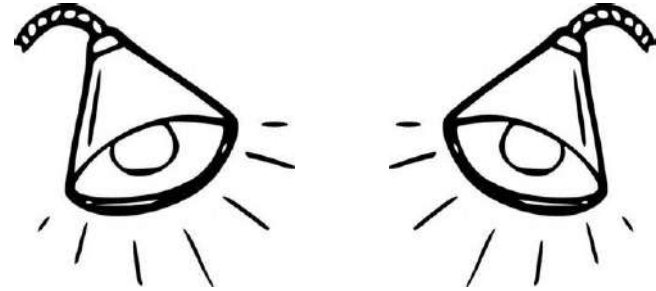
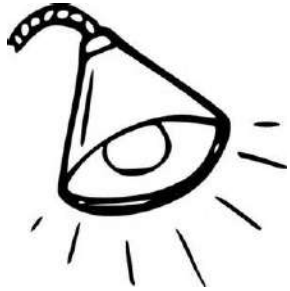
Noun

a proposed scientific explanation made on the basis of evidence and reasoning, that serves as a starting point for further investigation or experimentation.

synonyms:

theory, theorem, thesis, supposition, postulation,
postulate, proposition, premise, assumption

label the experiment plant diagram on attached WS



HOW TO MAKE /WRITE A HYPOTHESIS

- “If this occurs then this will because.....”
(alternatively you might write)
- “I think because”

_____ (write your hypoth. here)

Scientific Method

Identifying Variables: 5 things

IV	DV	Control Group
Experimental Group	Constants	

IV – Independent Variable

Define the IV:

IV – Independent Variable

How to identify the IV: _____

DV – Dependent Variable

Define the DV :

DV – Dependent Variable

How to identify the DV: _____

Control Group

Definition: this is the group which serves as a basis for comparison. It is the group which the scientists do not “experiment” with. Nothing is added and no changes are made.

How to identify the CG:

Experimental Group

Definition: the group which contains the independent variable. Scientist changes something in this group to test their hypothesis.

How to identify the EG: _____

Constants

Definition: factors in an experiment that remain the same for both the experimental group and control group.

LIST :

The steps of the scientific method are to:

- **Ask a Question**
- **Do Background Research**
- **Construct a Hypothesis**
- **Test Your Hypothesis by Doing an Experiment**
- **Analyze Your Data and Draw a Conclusion**
- **Communicate Your Results**

