

Cornell Notes

Concept Scientific Method

Date _____

Scientific Method

1. ~~Observe~~
2. Hypothesis
3. Experiment
4. Conclusion

Hypothesis

Educated guess. Possible solution to the problem. A prediction about a problem that can be tested. Usually an "If...Then" statement.

Variable

The factor that is changeable in an experiment.

Control

The factor that is not changed in an experiment. Used for comparison.

Theory

An explanation backed by results obtained from repeated tests or experiments. Must have a lot of evidence and facts to support it. Also supported by experimental data.

Law

A "Rule of Nature" that describes the behavior of something in nature, in a given situation. Sometimes it can't be explained but it happens. Few Theories become Laws. Laws are tested so much more than theories and they are absolutely true for all cases.

The Scientific Method is a process to gather verifiable FACTS not opinions. There are 4 Basic Steps: Observe, Hypothesize, Experiment, Conclude. We all use the Scientific Method when solving everyday problems, we just don't know it. When a hypothesis is wrong then your experimental data becomes part of your observation. Rethink the hypothesis and try, try again.