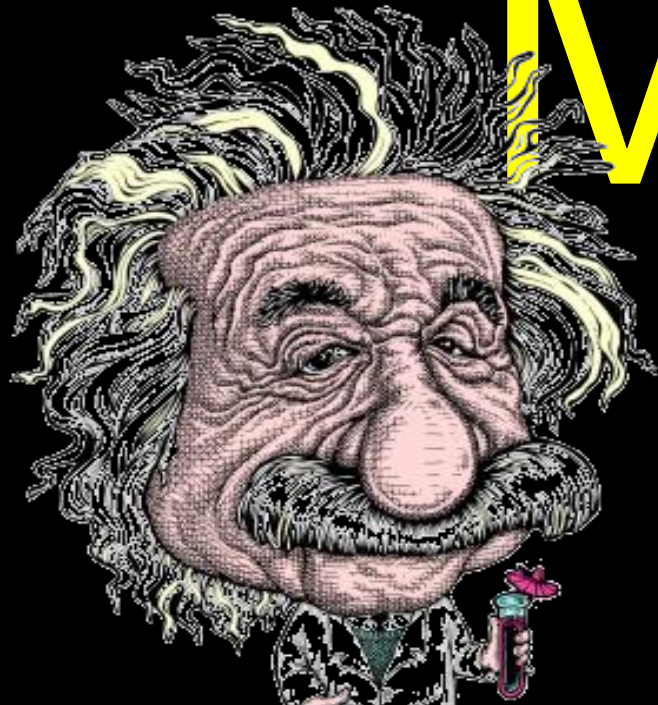


Scientific Method



Problem

The question that you are trying to answer in an experiment.



Example: In what kind of soil will a bean plant grow tallest?

Hypothesis

The hypothesis is your educated guess at what the answer to the problem will be.

Ex: I think that the bean plant will grow tallest in potting soil.

Variable

The one thing that you purposely change in an experiment.
It is what you are testing.

Ex: Different kinds of soils.

Controlled Variables (Controls)

The controls are a list of all of the things in your experiment that you will keep the same.

Ex: Same size pot, same amount of water, same amount of light, etc.

Procedure

A step-by-step list of the steps you will take in performing the experiment. Must be detailed.

Example: Get pots, put different soils in each pot, plant seed, place in window, water with 20ml each day, write down growth daily, etc

Data

Observations usually in the form of numbers collected from performing an experiment.

Data includes tables and graphs.

	Potting Soil	Rocks	Sand
Day 1	0 cm	0 cm	0 cm
Day 8	1.5 cm	0.5 cm	1.0 cm
Day 15	2.5 cm	1.0 cm	1.5 cm
Day 21	4.0 cm	2.0 cm	2.5 cm

Conclusion

- Summary of your results.
- The answer to the question you are trying to answer.
- Your conclusion also responds to your hypothesis as correct or incorrect.

Conclusion

Ex: After 21 days of growth the bean seed that was growing in potting soil grew 4.0 cm, rocks grew 2.0, and sand grew 2.5. This leads us to the conclusion that bean seeds grow tallest in potting soil. Our hypothesis was correct.