

## Scientific Method Notes

Observation / Research



Question / Problem



Hypothesis = testable statement that tentatively explains the outcome of the question



Experiment



Analysis of Results



Conclusion

Theory = a well-tested statement by many scientists over time that supports a certain topic or problem

### Controlled Experiment

Independent Variable = the variable is varied during the experiment; what will be tested

Dependent Variable = the variable will be measured (data); varies based on the independent variable

Control = the variable that is held constant; what you compare your other data to

Example: How does the addition of fertilizer influence the growth of the plant?

IV = amount of fertilizer

DV= growth of the plant

Control = plant with no fertilizer