

HYPOTHESIS: AN EDUCATED PREDICTION ON WHAT THE OUTCOME OF THE EXPERIMENT WILL BE; BASED ON BACKGROUND RESEARCH

Directions: write out your hypothesis for your science fair project on the lines below.

Hypothesis Self-Grading Checklist: Check the box if your hypothesis meets the criteria being described.

- the hypothesis predicts what will happen to each test group
- the hypothesis supports the prediction with what was learned from the background research

VARIABLES: OUTLINES HOW THE EXPERIMENTAL SET-UP WILL BE CONTROLLED.

THERE ARE FOUR VARIABLES:

- Independent Variable: the **one** characteristic that is different between all test groups
- Dependent Variable: the measurements being made / data being collected
- Constants: **all** the characteristics that will remain the same between the test groups
- Control Group: the **one** test group that is under normal conditions

Directions: write out your variables for your science fair project. All experiments must have all four variables identified.

★ Independent Variable: _____

★ Dependent Variable: _____

★ Constants: _____

★ Control Group: _____

Variables Self-Grading Checklist: Check the box if your variables meets the criteria being described.

- I only have one independent variable
- the independent variable identifies what is different between my test groups
- the dependent variable identifies what is going to be measured as the experiment is done
- the constants list all characteristics that will be the same amongst all test groups
- the control group identifies the one test group that is under normal conditions