

Name _____
Science Fair Grade 7

Period _____

My Problem:

Hypothesis, Variables and Control

A hypothesis is an educated prediction of what you think will be the answer to the problem you are testing. It is educated because it is based on the research you have done.

The hypothesis is a restatement of the problem (which is in question form) in a special sentence form. The form for the hypothesis is “If _____, then _____.” Include two (2) reasons why you believe your hypothesis is accurate.

When writing a hypothesis look for a cause and effect relationship in your problem. Remember the cause is the **independent variable**. This is the variable you are *testing the effect/affect of, manipulating, or changing*. The effect is the **dependent variable**. This is the variable you are *measuring* or *changes* due to the independent variable.

A. My hypothesis: (use “If __, then __” format)

Reason #1:

Reason #2:

****Hypothesis: Approved _____, Needs Revision _____, Resubmit _____

B. My Independent variable (what you are testing effect/affect of):

C. My Dependent variable (what you are measuring):

****Variables: Approved _____, Needs Revision _____, Resubmit _____

Think ahead about how you might begin testing your hypothesis. How will you know what effect/affect your independent variable causes? Your experiment must have a **CONTROL**. This is a situation where your independent variable is missing from the experiment. It is the “normal” situation. If you were testing different brands of detergent your control would be washing one set of stained items in water only, with no detergent. Not every experiment will have a control. If you are testing two different battery brands, you are doing a comparison and there is no control.

D. My Control: _____

If there is no control, state: This is a comparison, there is no control.

****Control: Approved _____, Needs Revision _____, Resubmit _____

REVISIONS

Hypothesis: _____

Reason: _____

Reason: _____

Independent variable: _____

Dependent variable: _____

Control: _____