

Scientific Inquiry Investigation Design Diagram

Project Title:

Research Question (Problem):

Hypothesis:

Independent Variable: This is where you state what you are changing. You should only change one variable for a valid investigation.

* Levels of IV (including control)	Control-	Change	Change
Number of trials or test subjects*			

Dependent Variable: What you will measure. This could be distance, time, number of responses. This should include your unit of measurements.

Constants or controlled variables: These will be the variable you must leave the same so that the outcome of the experiment will not change. If testing a ramp angle then the same ramp must be used and the same car or object going down it.

* Levels of IV or Independent Variable will be how many changes you are making to the variable. For example, If you are changing the angle of a ramp you could have 0° , 45° and 90° . Zero degrees may be your control. Not all experiments will have controls.

* Number of trials or test subjects. This is where you write how many you will have in each experimental group or how many times you will run the experiment. You should have the same number for each level of the independent variable. If you are 10 trials down a ramp, then you would write 10 under each. Remember it is important to have a large testing group or trials to get more valid results.