

Experimental Design Graphic Organizer

Question:	Is this a comparison or the relationship between two things?
What is this about?	What is the Dependent Variable (DV)?
What affects the DV? _____ → _____ → _____ → _____ → _____ → _____ → _____ → _____ → _____ → _____ →	How will I manage the effect of these? (Look to right) _____ _____ _____ _____ _____ _____ _____ _____ _____ _____
Options: <ul style="list-style-type: none"> • Set levels at _____ • Hold IV constant at _____ • Equal numbers of ___&___ • Use same subject at different times: _____ • Divide equally between control and experimental groups • Observe and measure • Ignore 	
***From the list above, circle or highlight the Independent Variable (IV).	
Comparison: Is this control VS experimental? ____ OR Is this group VS group? ____	
What is the first group or control?	What is the second group or experimental?
What am I measuring or observing?	Units? When will I measure? What formula will I use?
DV: _____ IV: _____	
Hypothesis: If [I.V.] _____, Then [D.V.] _____.	
How will data look if I am correct? _____ How will data look if I am wrong? _____	
Independent Variable Part of the experiment changed by the experimenter	Dependent Variable Part of the experiment that changes because of the IV- is measured or observed to get data
Constant Parts of the experiment that remain the same to prevent affecting the experiment's outcomes	Control Level of the IV that you compare back to- unchanged or in the natural state

Experimental Checklist

Complete the checklist below and check each step as it is completed.

What could go wrong in this experiment? _____ _____ _____	How can I prevent or deal with these problems? _____ _____ _____
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- Make a timeline showing the events in your experiment and the times you will measure or observe.
- Write a clear procedure that other people can follow step by step.
- Create an organized data table.
- Complete the experiment.
- Make adjustments to the written procedure if necessary and explain changes.
- Display the data in an organized chart or graph (if possible).
- Complete required follow up for the experiment (questions, lab report, evaluation, etc.).
- Complete the sections below on results and the next step.
- Sign and date this form.

Results: When (I.V.) _____, Then (D.V.) _____.	
SCIENCE DOES NOT STOP: What is my next step? _____	What NEW questions need to be answered? _____

Name _____

Date _____