**Procedure**

1. Write your Experimental Question:

Key Elements of the Experimental Procedure

* Description and size of all experimental and control groups, as applicable
* A step-by-step list of everything you must do to perform your experiment. Think about all the steps that you will need to go through to complete your experiment, and record exactly what will need to be done in each step.
* The experimental procedure must tell how you will change your one and only independent variable and how you will measure that change
* The experimental procedure must explain how you will measure the resulting change in the dependent variable or variables
* If applicable, the experimental procedure should explain how the controlled variables will be maintained at a constant value
* The experimental procedure should specify how many times you intend to repeat your experiment, so that you can verify that your results are reproducible.
* A good experimental procedure enables someone else to duplicate your experiment exactly!

2. My Independent variable (What I will change) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

3. My Dependent variable (What I will observe and measure) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. List ALL variables that must be controlled during the experiment

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5. (Extraneous Variables) Variables that cannot be controlled:

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| --- | --- | --- | --- |
|  |  |  |  |

5. Remember the more trials you do the more RELIABLE your data will be.

\*In experiments that involve testing or surveying different groups of people, you will not need to repeat the experiment multiple times. However, in order to insure that your results are reliable, you need to test or survey enough people to make sure that your results are reliable.

How many trials do you plan on conducting? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Or

How many people will you conduct your experiment on? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. What materials will you need? (Be specific and how much)

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7. Where will you conduct your experiment? Why?

8. Chart your experiment: Look at the example below, and create a chart that details your experiment (Be specific) (Label experimental variable)

|  |  |
| --- | --- |
| Dog fed without Vitamins | Dog fed with vitamins |
| 5 golden retrievers  1 hour exercise  In kennel at 9:00 pm  1 cup dog food | 5 golden retrievers  1 hour exercise  In kennel at 9:00 pm  1 cup dog food  1 vitamin D vitamin crushed and added to food (experimental variable) |

Your experiment chart might have more than 2 columns.

Create chart here:

9. Write your Procedure (If need more room do on separate sheet of paper) See SF Website for examples