What Affects the Period of a Pendulum?

**Introduction**: In science we rely on the Scientific Method/Process to help us effectively test how altering one variable affects a system, or phenomenon.

**Variable**: Some quantity that can vary in a system

**Independent Variable**: The variable that is being tested (on how it affects the system), The Experimenter controls this variable.

**Dependent Variable**: The variable that is measured in an experiment…. (How does this change as I alter the independent variable?)

**Experimental Controls:** Testing the effect of changing one variable on another requires you to isolate and alter only one variable. Everything else that could change, must be forced to remain the same. If multiple variables change, how can you be sure that

**Consider the following experiment:**

How does music style played for plants affect their growing?

IV:Music Type

DV: Plant Growth

Controls: Type of plant,Water, Plant Food, Sunlight etc. all should be the same for each plant.

**Period**: The duration of time taken for a released pendulum to return to it’s starting position.

What Sorts of Variables can be changed about a pendulum?

My Group Will test the Effects of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ On the Period of a Pendulum

Data Table:

Every time you change your IV, let the pendulum run for 5 full periods and record the time for each under p1,p2,p3,p4,p5 and then average them together.

You should AT THE VERY LEAST do 5 changes to your IV.

After you

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  |  |  |  |  | IV: |
|  |  |  |  |  | P1 |
|  |  |  |  |  | P2 |
|  |  |  |  |  | P3 |
|  |  |  |  |  | P4 |
|  |  |  |  |  | P5 |
|  |  |  |  |  | Avg P |