9.15.16

Variables and Constants:

- variables CHANGE in an experiment
  - you can only have TWO variables
  - independent variable - YOU CHANGE THIS! it's the easier one to change
  - dependent variable - this changes on it's own. You are *measuring* this one
- constants stay the same
  - this is everything except the two variables

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example:

Determine the relationship between the number of hours studying for a test and the grade received on the test

- the variables are IN THE SENTENCE!

independent variable:

dependent variable:

constants:

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example:

Determine the relationship between the number of cups of coffee drank a day and the effect on a person's teeth

independent variable:

dependent variable:

constants:

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example:

Driving without a seat belt increases the likelihood of death

Independent variable:

Dependent variable:

constants:

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-when dealing with living things, a control is usually used

- control group - a group that is identical to the group being tested but does NOT receive the treatment

ex: a group that does not smoke

a plant not given sugar water

a group not drinking coffee

- a control is not always needed! Only use when variables are too hard to control

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-experimental group - the group that DOES get the treatment

ex: the group that smokes

the group getting the cancer medication

the group drinking coffee

- every lab has an experimental group
- if using a control group, the experimental and control group must be identical!

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- you will have the remaining part of the hour to finish the variables and constants worksheets you have gotten over the past week

- they are due by the end of the hour

- I will be talking to a few of you that I still need safety contracts and missing work from

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