

THIS WEEK

Scientific Method. (Much).

Pick up worksheet (no sticker? You are missing vital info. Sticker = awesome).

How can I help?

Also, Characteristics of Life.

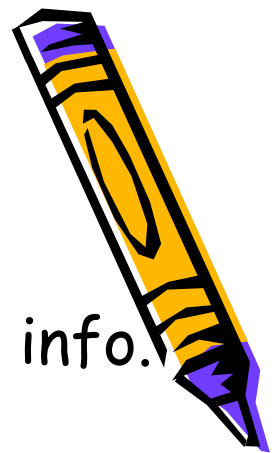
Pretest, Scientific Method
Variables!

Deer Game, graphing

Lab Safety—microscopes—CELLS!

TEST, Chapter One, Thursday/Friday

Pass out Books.

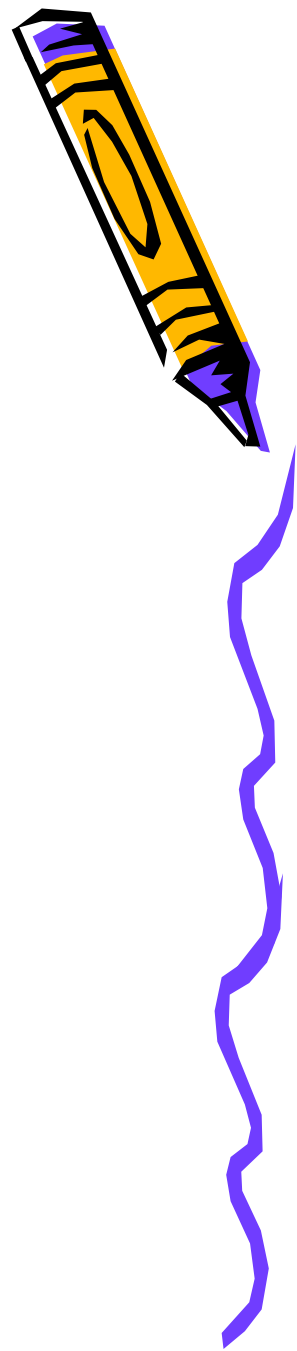


How do we learn?

Terri Schiavo.

Line

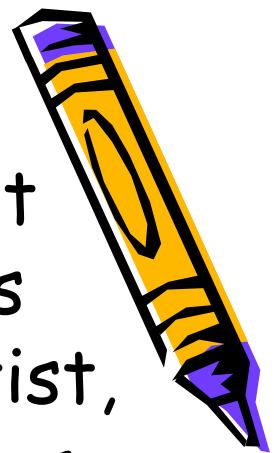
How do we write?



Answer one

When considering the sanctity of life, one must first consider the morals, values, and principals that should govern us as a people. For a scientist, however, there is a unifying school of thought as to what constitutes a living entity. To be considered alive—not sentient, not intelligent, but merely existing—ones must possess eight critical characteristics.. You must have cells, that is the smallest living unit an individual may possess. You must also have either deoxyribonucleic acid, respond to their

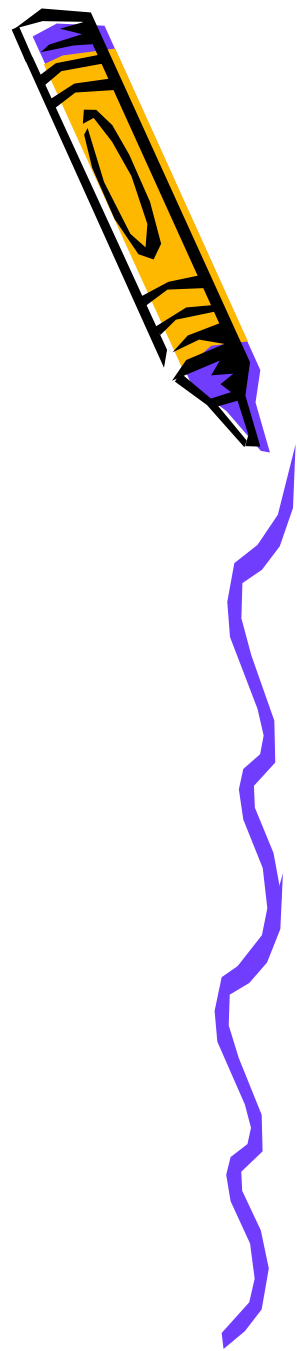
environment (i.e., living creatures must have a tangible reaction to outside forces and stimuli). Other criteria includes a...



Answer Two

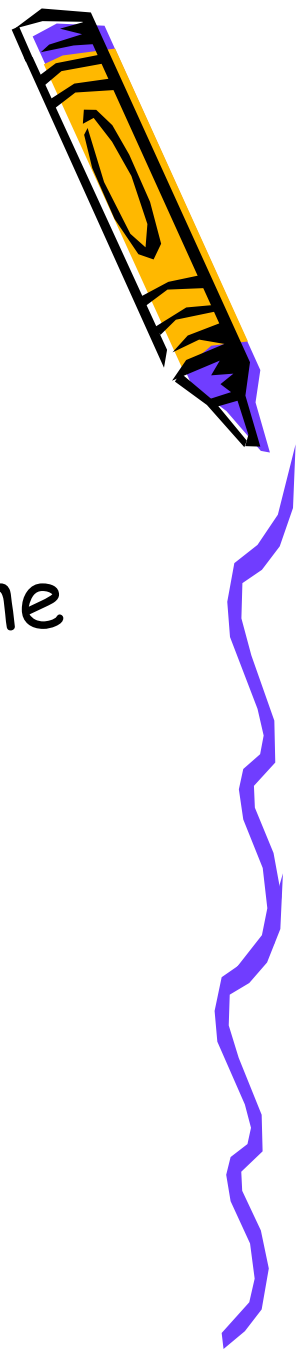
Living things must have 8 things:

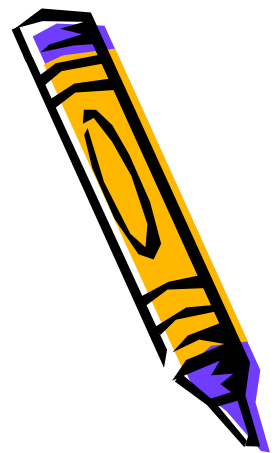
1. Made of cells
2. Adapt/Respond to environment
3. Internal Balance
4. Based on genetic code- DNA or RNA
5. Evolution- all organisms evolve over time
6. Consume energy
7. All organisms reproduce
8. All organisms grow and develop



NOTES

1. Made of cells
2. Adapt/Respond to environment
3. Internal Balance
4. Based on genetic code- DNA or RNA
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Made of cells

<http://www.youtube.com/watch?v=pvOz4V699gk&feature=fvwrel>

<http://www.youtube.com/watch?v=a4aZE5FQ284&feature=fvwrel>

Critical vocabulary when

describing cells?





Adapt and respond to environment

[http://www.youtube.com/watch?v=IMG](http://www.youtube.com/watch?v=IMGXfL3UUSU)

[XfL3UUSU](http://www.youtube.com/watch?v=IMGXfL3UUSU)



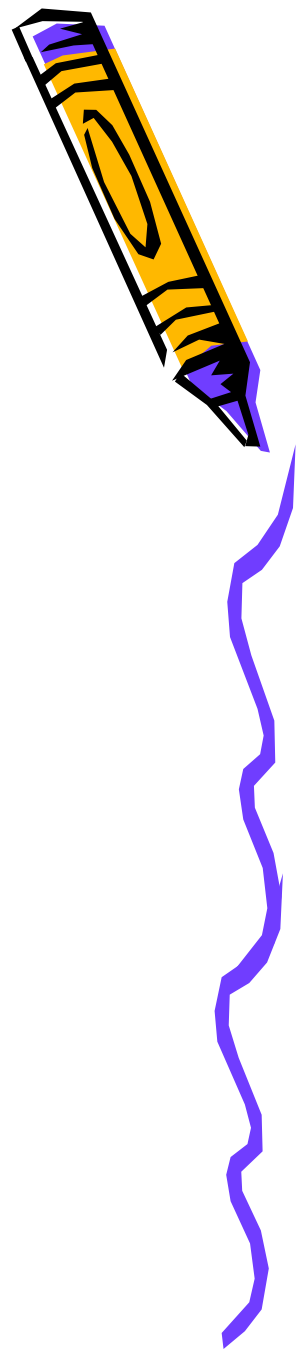
Homeostasis

<http://www.youtube.com/watch?v=Aa2qve75L9Y>

39 seconds—1:32

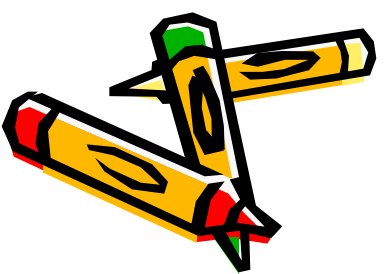


AIDS



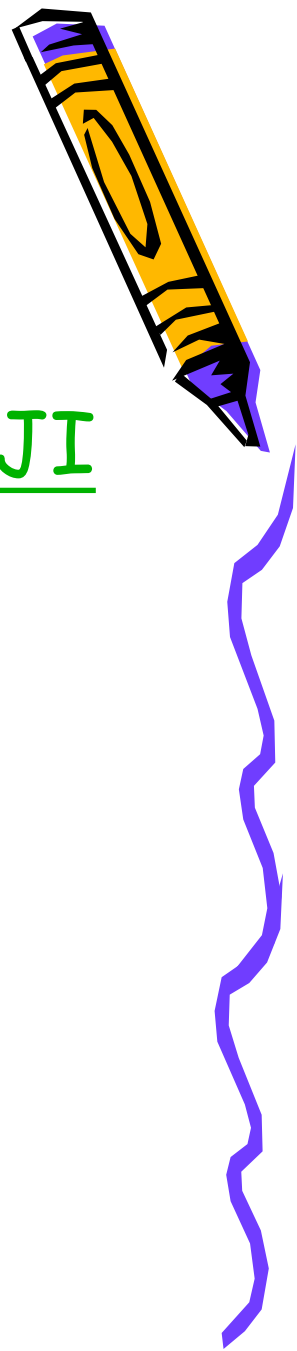
Evolution

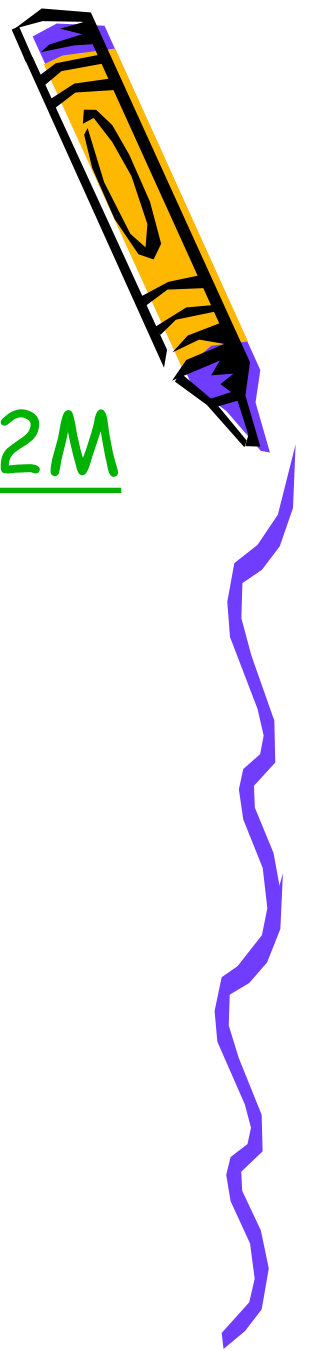
Partner



<http://www.youtube.com/watch?v=4JIytOL-Q18>

"a" as a prefix means....?





http://www.youtube.com/watch?v=_2MFFzldkYQ&feature=related

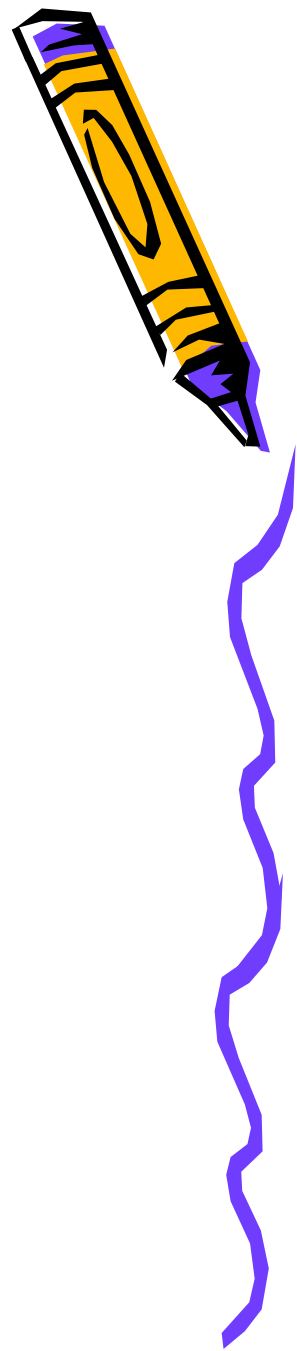
3:30—4:30



Review?

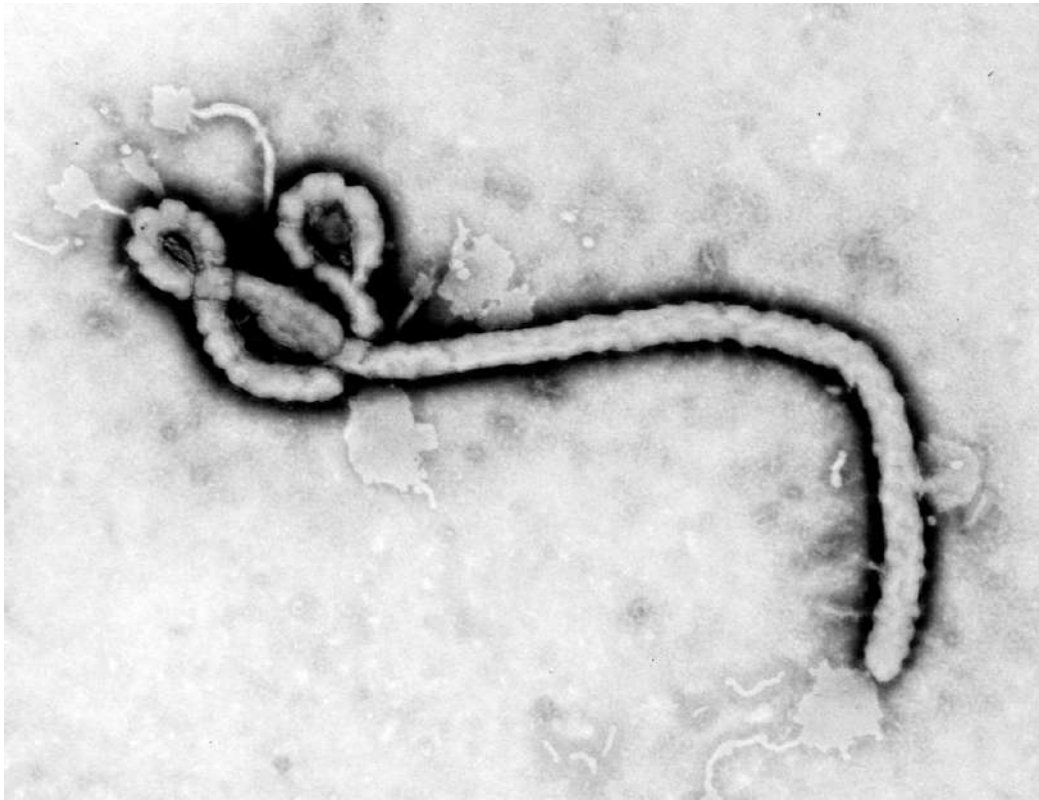
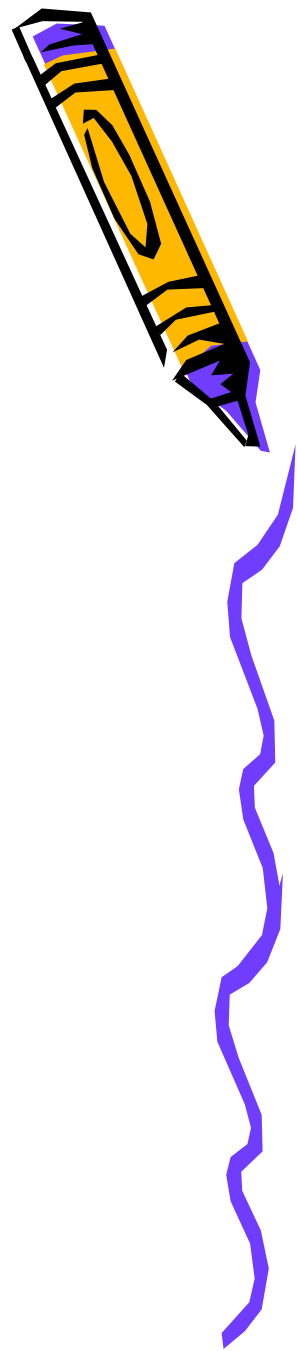
Eight groups.

How do we learn?

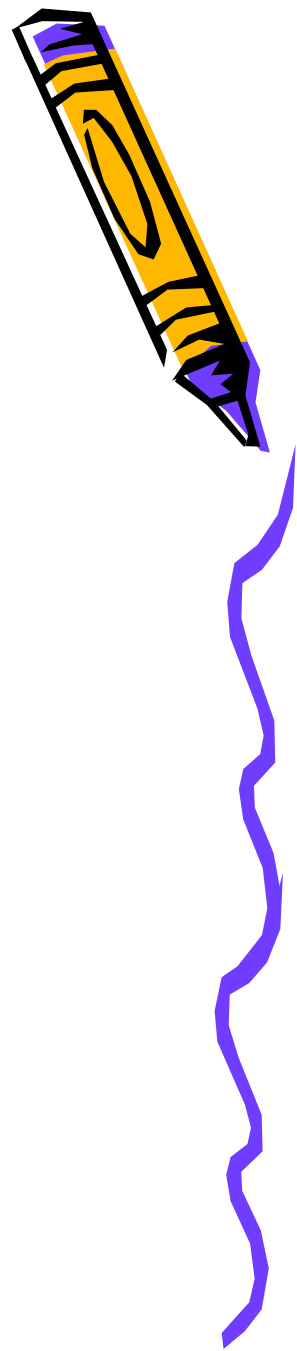


What do we look for in science...?

YOUR QUESTION
(get a piece of bellwork paper).



Steps of the Scientific Method



Sheets.

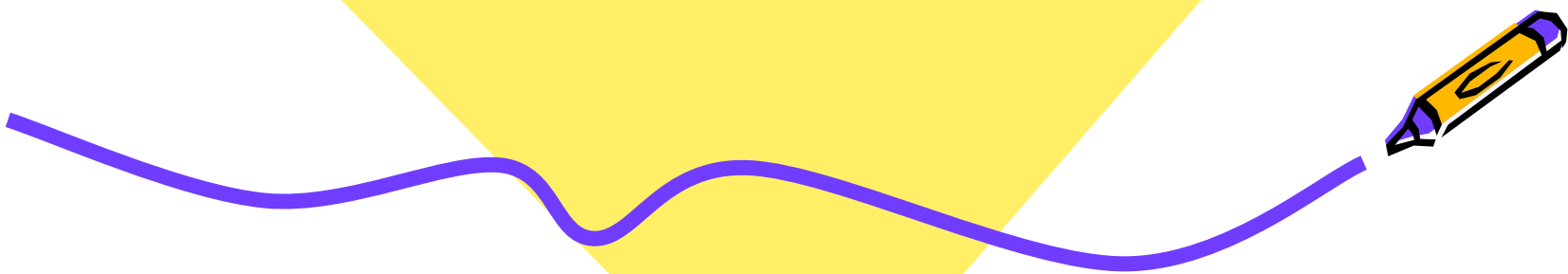
Walk-through.

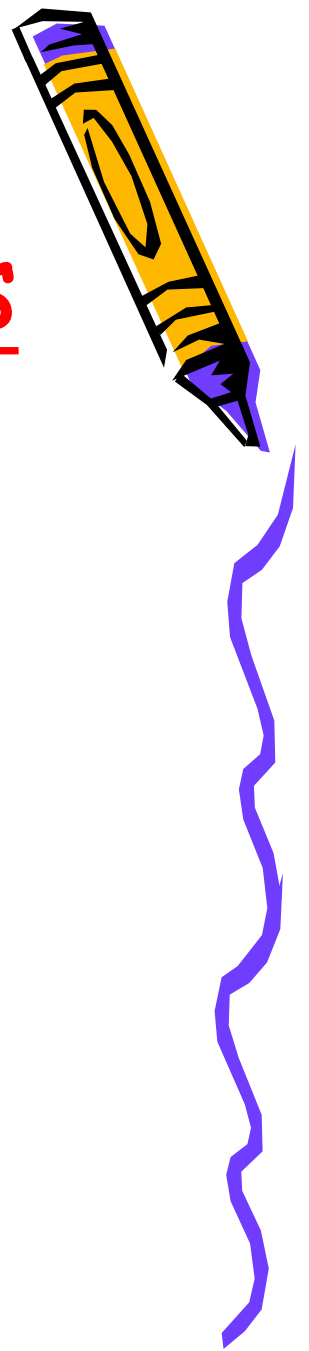
Concentrating on two parts today.





Hypothesis





Step 2: Form a Hypothesis

Hypothesis: an educated guess or prediction; an "if, then" statement

If _____ independent variable _____
then _____ dependent variable _____



Example:

Independent Variable:

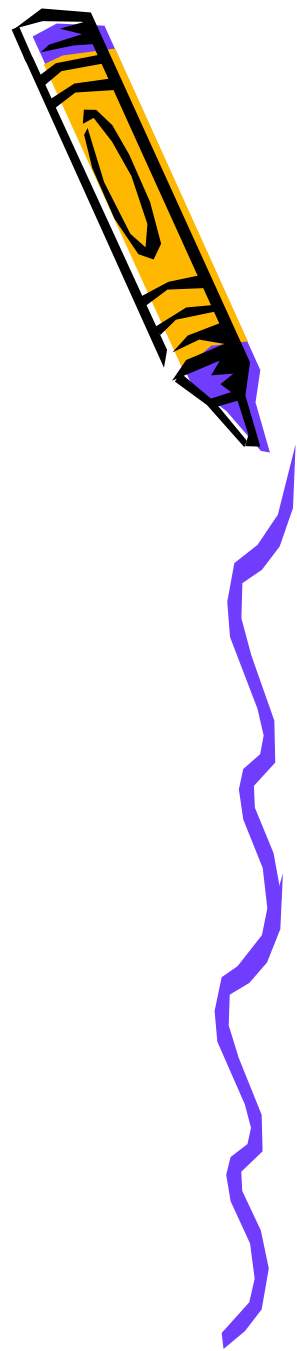
I feed my cat a lot of food

Dependent Variable

she will get fat


If _____

then _____





Remember

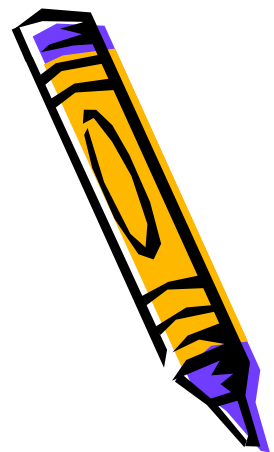


Try to use INCREASE and DECREASE
in your hypothesis!

Ex. **IF** I increase the amount of food I give
my cat, **THEN** she will increase her weight



Now Try it on Your Own!



'Writing a Good Hypothesis'

Just 'plug and chug' in your variables!

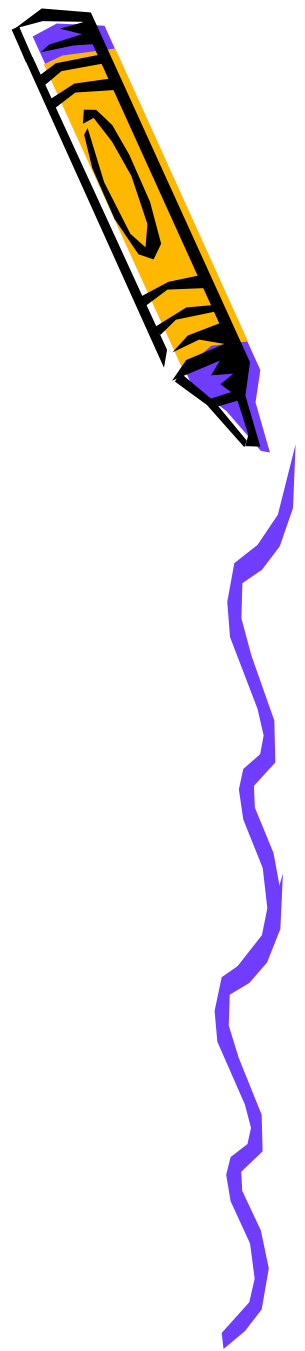
Practice Sheet.

variables
(for partners)



Identifying Variables

Step 4: Test your hypothesis



Variables...



Types of Variables



There are 2 main types of variables:

Independent Variable: The variable that is changed by the scientist; the 'I control' variable

Dependent Variable: The variable that might change because of what the scientist changes - what is being measured





Your hypothesis can TELL you what your variables are!

Ex. If I drink Mountain Dew before bed, then I will not sleep very much.

IV: Drinking Mountain Dew

DV: the amount of sleep

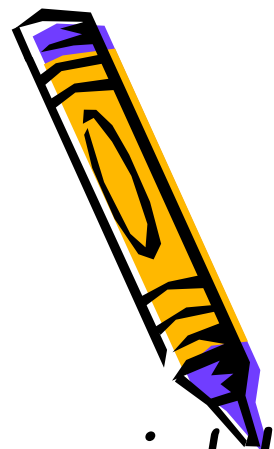


PRACTICE!

Use this hypothesis to identify the variable

If I leave all the lights on all day,
then my electric bill will be expensive

IV: _____



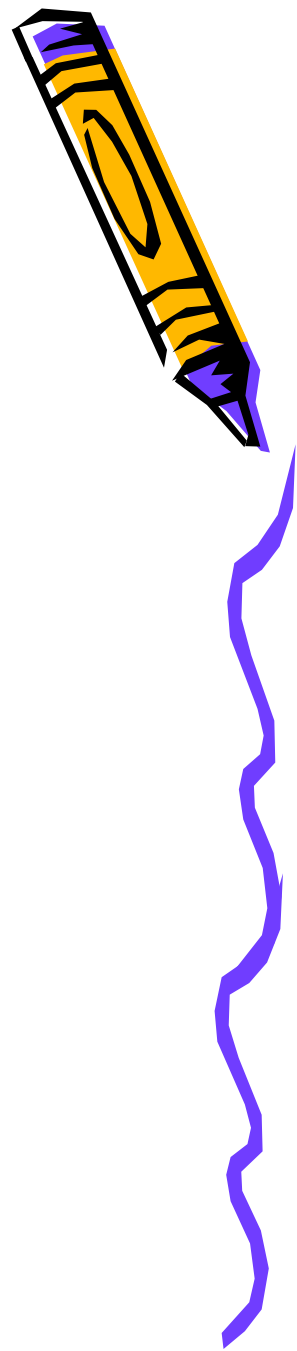
Practice

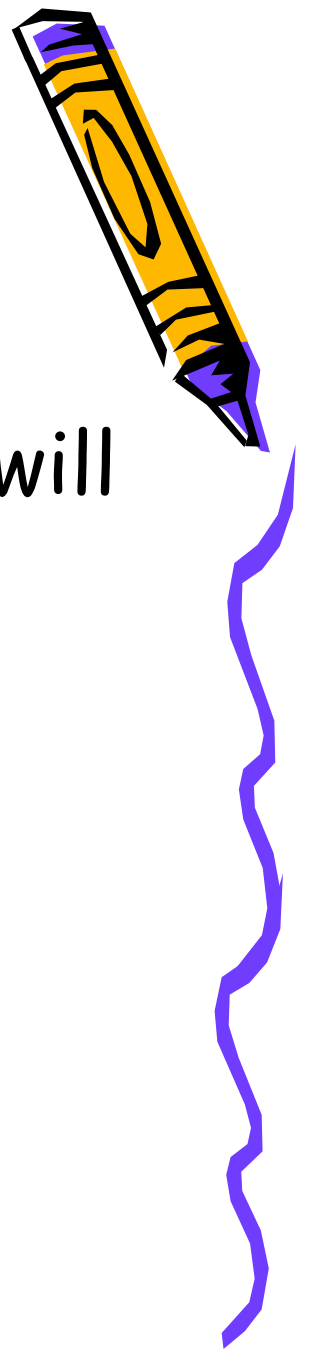
Use this hypothesis to identify the variables:

If I leave all the lights on all day,
then my electric bill will be expensive

IV: _____

DV: _____





If I brush my cat more, then there will be less fur on my furniture

IV: _____

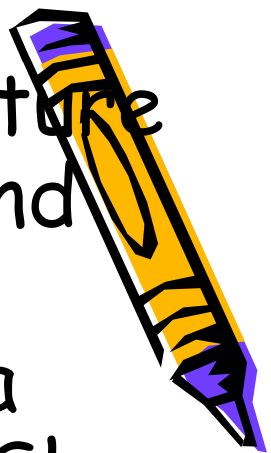
DV: _____



Elizabeth wanted to test if temperature affected how fast milk goes bad and curdles. She left milk in a room temperature closet, a fridge, and a oven that was turned on low heat. She then measured how rotten the milk was after 10 days.

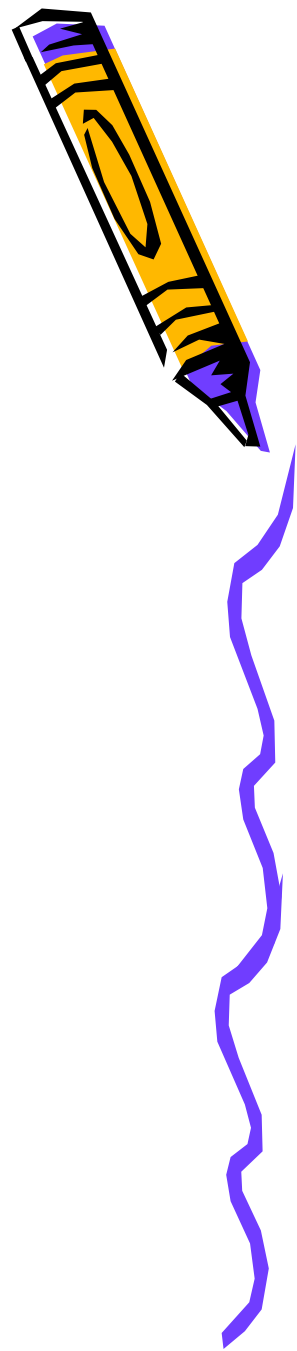
IV: _____

DV: _____

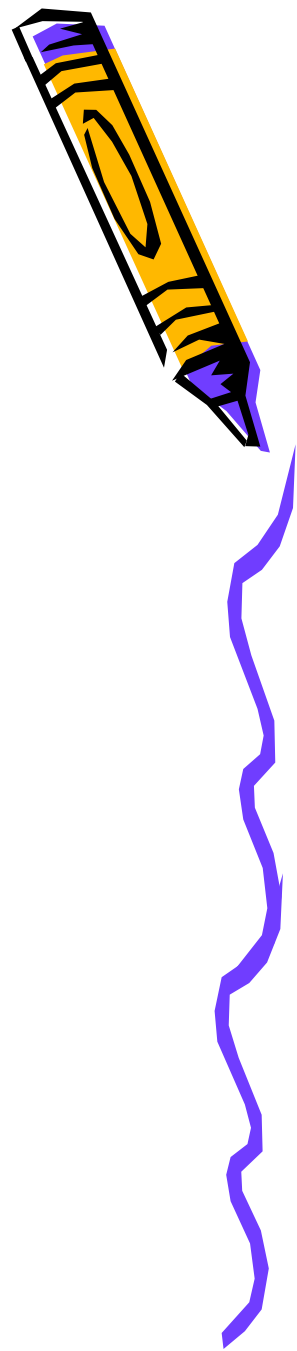


More practice

- Partners.



I may wind up regretting
this...



[http://www.youtube.com/
watch?v=hwU3YL_SD70
&feature=related](http://www.youtube.com/watch?v=hwU3YL_SD70&feature=related)

- How do we learn?



More practice...

- On.
- Your.
- OWN.

