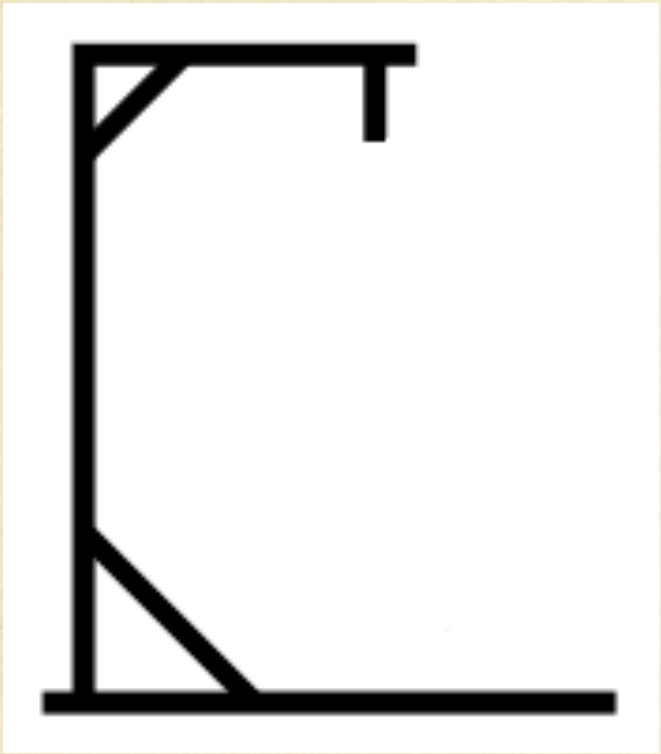
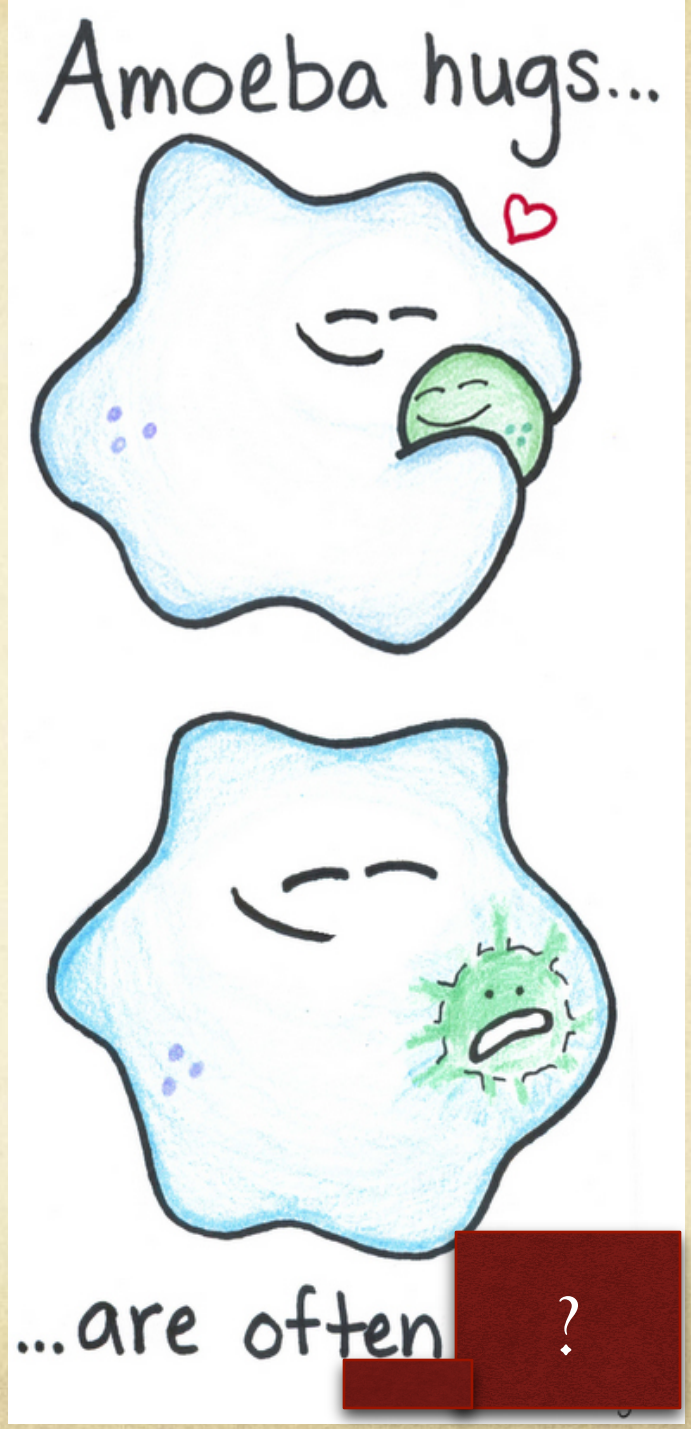
Cell Theory, Microscopes, Microorganisms

Warm Up: Hangman



_____ _____ _____ _____ _____

- Complete the comic! (5 letters)
- Must be seated quietly with hand raised to guess.
- First person to complete word wins prize.



PRE TEST

- Complete the pre-test to the best of your ability
- This will NOT count as a grade

CELLS! (Discussion)

1. What are cells?

- the basic units of structure and function in living things

2. What things are made up of cells?

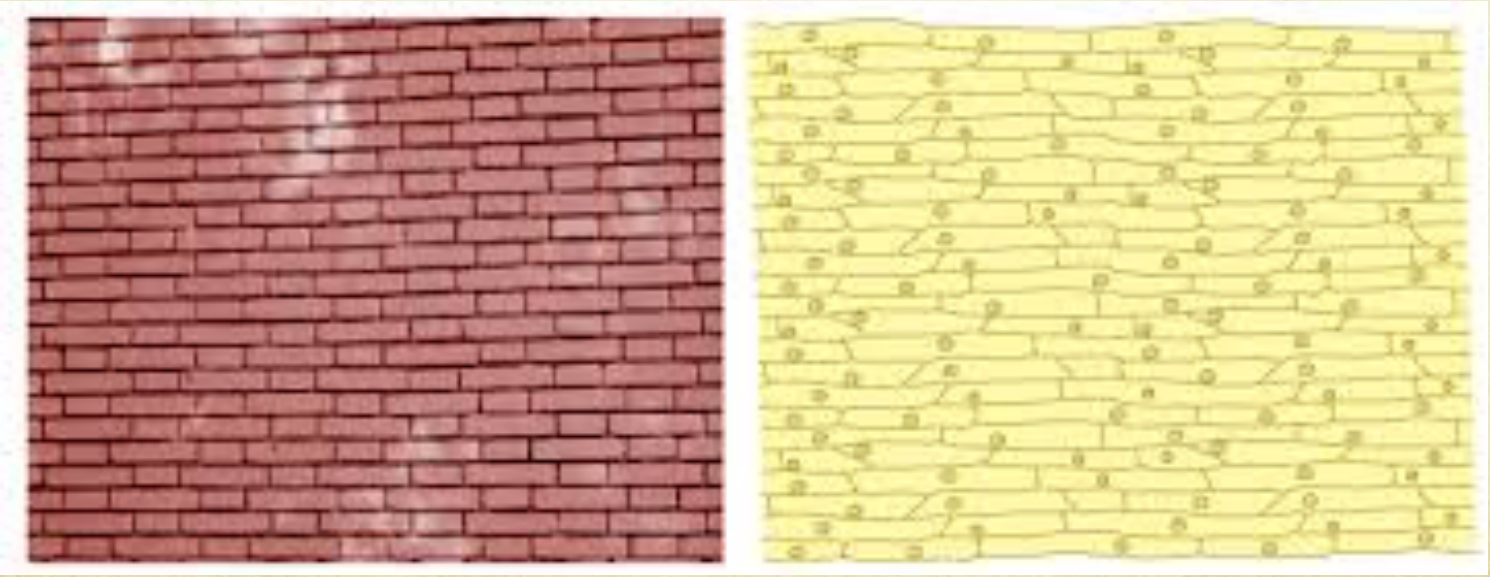
- all living things (organisms)

3. What characteristics do living things have?

- Eat, move, breathe, grow, excrete waste, respond and adapt, reproduce

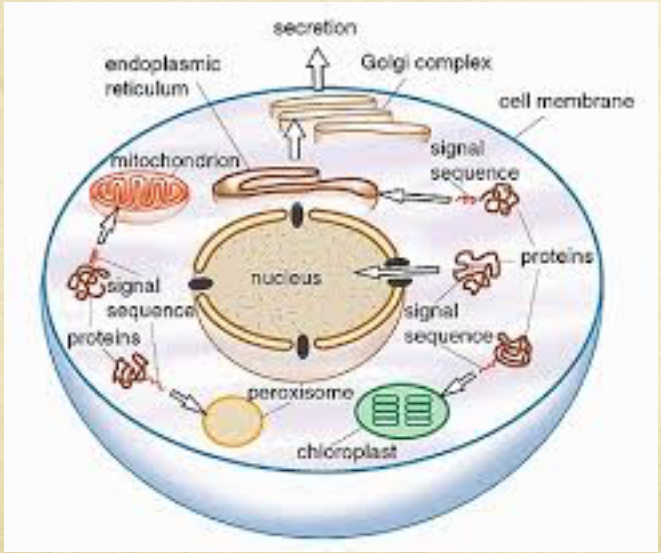
Cells and Structure

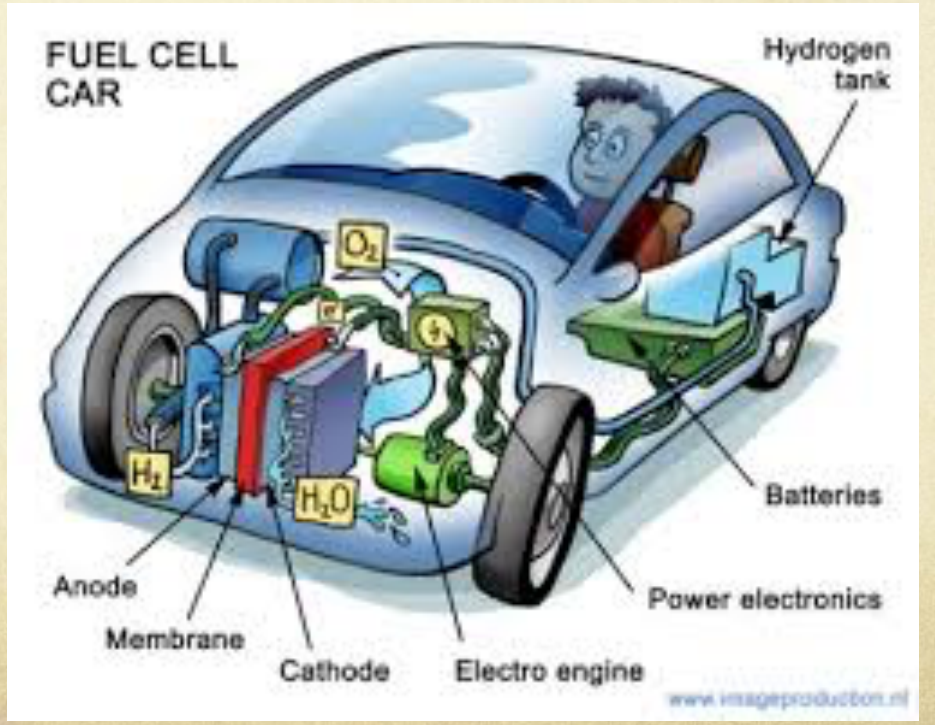
- Cells are like the parts of a car, they are small parts of a whole. Like the bricks in a building, cells make up the structure of your body



Cells and Function

- Like the parts of a car, cells have jobs. The oil filter has the job of eliminating dirt from oil in the car. This is its only job and it's made to do it well. Cells are just like this, they are designed to do a specific job.





Cell Theory

1. All living things are composed of cells
2. Cells are the basic units of structure and function in living things
3. 

Living Things

- So what is the difference between living and nonliving things?

- Star Trek Video

Living vs. Nonliving Game

Fill out the living vs. non-living worksheet **individually** and then play the game linked below

Living vs. Non-Living Game

Living collage Mini-Project

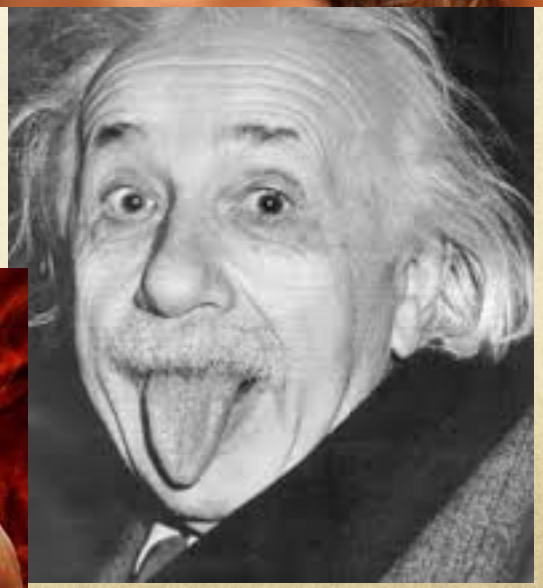
- Create a small poster collage of living things
- Worth a project grade
- Due on Wednesday, November 5th.

Warm-Up

1.) How can someone become famous?

2.) How would you like to be remembered?

3.) Is there anyone you look up to? Why?



THE WACKY HISTOTRY OF CELL THEORY

- TED ED CELL THEORY VIDEO

- Why do they call it the wacky history of cell theory?

Cell Theory (Notes)

1. All living things are composed of cells
2. Cells are the basic units of structure and function in living things
3. 

Important People Notes

- Robert Hooke- first discovered cells by looking at cork
- Anton van Leewenhoek- first person to observe live cells under a microscope
- Schleiden- found out that all plants are made of cells
- Schwann- found out that all animals are made of cells
- Virchow- found out that cells create other cells

Timeline Activity

- Work individually to create a timeline of the important events leading up to the development of the Cell Theory
- Use the instruction sheet to guide your work
- Use the textbook (pages 510-515) and print outs as references for your information.
- Focus on their contribution to the Cell Theory -I don't need to know when/where they were born or went to college
- Make your timeline neat and organized (use the example in the book to help you)
- Put all of your names on the back of your timeline

Timeline Grading:

- 20 pts- Accuracy
- 20 pts- Information
- 20 pts- Neatness
- 20 pts- Creativity
- 20 pts- Pictures
- **100 pts Total**

Timeline answers

1. What theory did these scientists provide evidence for?

*the cell theory

2. What instrument was necessary before the cell theory could be developed?

*The microscope

3. Which three scientists directly contributed evidence for the cell theory?

*Matthias Schleiden, Theodor Schwann, Rudolph Virchow

4. How did the earlier scientists and their contributions directly affect the discoveries of later scientists (see #2)? For example, what had to come first?

*Hans and Zacharias Janssen had to first develop the microscope before cells could be discovered. Robert Hooke then discovered empty, dead cork cells in tree bark. Anton van Leeuwenhoek discovered the existence of living cells and is sometimes given credit for the microscope.

5. List the three parts of the cell theory.

*All living things are made of cells.
*Cells are the basic units of structure and function in living things.
*Living cells come only from other living cells

Warm

1.) Which two famous scientists were among the first to use microscopes to view cells?

2.) How should you always carry a microscope?

3.) Why do scientists need microscopes? Why do we need to see things that small?