Scientific Method

1. Question, Research, Hypothesis, Experiment, Data, Conclusion

2. variable- factor that can change
control- factor that stays the same

3. Control group is what is constant (not being changed) while the variable may change

4. Researchers repeat to verify results, allow others to evaluate and replicate, compare conclusions, raise new questions

5. At a minimum 2 times, to make sure the data is accurate.

6. One at a time so that nothing else is influencing your result.

Metrics

1. meter, liter, gram

2. Centi= 1/100
   Milli= 1/1000
   Kilo= 1000

3. m, kg, L

Microscope section

1. left

2. right

3. Objective lens X eyepiece

4. 40x
   20x
   10x
   100x

5. high- see details
   low- see the overall organism

Lab safety

1. goggles

2. Never mess with fire without goggles, never heat anything you aren't supposed to, don't reach across a flame, don't touch the flame, never heat a closed container, pull hair back

3. Read all directions, ask partner, ask teacher

Characteristics of living things

1. made up of cells
reproduce
universal genetic code (DNA)
grow and develop
maintain stable environment (homeostasis)
respond to stimulus
change over time

2. Signal to which an organism responds, anything that elicits a response

3. Maintaining a stable environment
shivering, goose bumps, sweat

Chemistry of living things

1. Contain carbon
2. Measures acidity
3. carbohydrates
4. carbohydrates, lipids, nucleic acids, proteins
5. carbohydrates/lipids= energy
nucleic acids= genetic information
proteins= structural, chemical reactions
6. $C_6H_{12}O_6$
7. Speed up chemical reactions, proteins
8. A substance that speeds up rate of a chemical reaction; it brings two things together to react, but don't get used up in the reaction
9. adenine, thymine, cytosine, guanine (A-T and C-G)
10. Double helix
11. fats, oils and waxes

13. cellulose/plant starch
14. cellulose