Recording and Presenting Data

Recording Data

1. Data means any number that you read from a tool. This includes temperature, mass, volume, etc.
2. Always record the units of measure (deg C, grams, etc).
3. Every tool has a smallest marked division. Most of our thermometers have a mark every 1 degree. When recording data, make sure to record all of the numbers marked, and one more digit that you estimate. On our thermometers, this means record to the 0.1 deg C. It's up to you to estimate this last number; if you think it's "on the line" then you are estimating a "0".
4. Record the numbers when you read them. Don't put the zeroes in later, and don't memorize the number to write it down somewhere else. Bring your notebook with you!
5. Record the numbers exactly as you read them. If you are looking at the age of a penny, write the year it says (1998), not the age (2 years). Any number that you have to calculate is a result, not data.

Presenting Data

1. Data should always be presented in columns in a data table. The table must have a title or heading.
2. Every piece of data should be named (ex. "mass of cold water")
3. Every piece of data should have a number (ex. "23.718")
4. Every piece of data should have a label (ex. "grams")
5. If there are many measurements of the same type, you can name them in the column heading, rather than individually. The same is true for the labels.
6. Always line up the decimal points in the column of numbers. This can be done using decimal-aligned tabs, or presenting data tables in a font such as Courier (where each letter gets the same width).
7. Spread it out! Don't be afraid to make your data table as wide as the page. You can align the decimals on the red margin line you can see through the page.
8. Relevant observations should be included with data.

Sample Data Table #1 - One Trial		
mass of beaker	167.045	g
mass of beaker and water	211.879	g
initial temperature	22.1	C
final temperature	31.7	C
room temperature	23.0	C

Sample Data Table #2 - With Time			
Time (min:sec)	**Air Temp. (C)**	**Wax Temp. (C)**	**Observations**
00:00	23.1	23.1	
00:30	23.3	25.9	began to melt
01:00	24.2	30.3	turned blue
01:30	24.0	45.7	