# Week 3 Packet – Honors Chem

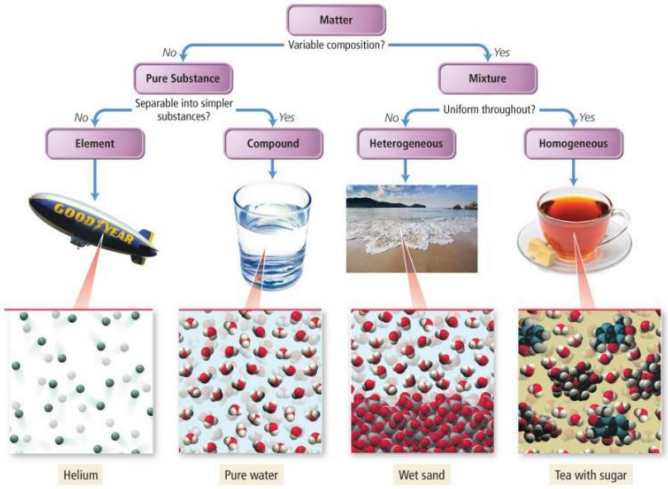
This is *hopefully* all the handouts we will use this week in Honors Chem. Due to the challenging logistics of this year, please offer grace if I miss a handout or if things change during the week. **Please note** – You do not *have* to print. I am just providing the option to make things easier for those who want to print. All of these pages are on the class website, always! www.mychemistryclass.net

***I will put the glue ins for the notes on the front and/or back of the packet cover page like this – since you don't need the cover page for anything you can always just cut these out and glue them in. Trying to save some paper for those of you who are printing! ☺**

## N-3

| | | |
|---|---|---|
| **Nonzero Integers** | ALWAYS COUNT as SIGNIFICANT | |
| **Leading Zeros** | NEVER COUNT as SIGNIFICANT | |
| **Captive Zeros** | ALWAYS COUNT as SIGNIFICANT | |
| **Trailing Zeros** | AFTER A DECIMAL<br>ALWAYS COUNT as SIGNIFICANT | |
| *SOMETIMES COUNT as SIGNIFICANT* | NO DECIMAL<br>NEVER COUNT as SIGNIFICANT | |
| **Exact Numbers** | INFINITE NUMBER<br>of sig figs | |
| **Multiplication & Division** | Answer based on LEAST number of SIG FIGS in the problem | |
| **Addition & Subtraction** | Answer based on LEAST number of DECIMAL PLACES in the problem | |

# N-4




# N-5

| Dalton's Atomic Theory (1808) | | |
|---|---|---|
| # | Postulate | ✓ or X |
| 1 | All matter composed of extremely small particles called atoms | |
| 2 | Atoms of a given element are identical in size, mass, and other properties | |
| 3 | Atoms of different elements differ in size, mass, and other properties | |
| 4 | Atoms cannot be subdivided, created, or destroyed | |
| 5 | Atoms of different elements combine in simple whole-number ratios to form chemical compounds | |
| 6 | In chemical reactions, atoms are combined, separated, or rearranged | |

# N-5

| Conclusions from the Study of the Electron |
|---|
| Cathode rays have identical properties regardless of element used |
| Atoms are neutral |
| Electrons have very little mass compared to the atom's mass |

# N-5

| Conclusions from the Gold Foil Experiment |
|---|
| Most of the particles passed right through<br><br>A few particles were greatly deflected.<br><br>Very few were GREATLY deflected |