**Atoms and Elements Cheat sheet!**

I’ve put this little cheat sheet together to help clarify all the concepts we learned today. If, after reading this, you are still confused, please email or see me so I can help you more ! ☺

* Atoms are the smallest unit of energy
* All elements are made of atoms
* Elements make matter
* Atoms have 3 subatomic particles inside them (kinda like their organs)
	+ Protons (+)
	+ Electrons (-)
	+ Neutrons (≠)
* What makes one element different from another is the different number of protons, neutrons, and electrons that it contains.
* Look at the periodic table and find Carbon (atomic number 6) , the 6 at the top of the symbol C is called the atomic number and it means that carbon has 6 protons and 6 electrons.
* In order to find the number of neutrons take the atomic mass (the decimal under the word carbon 12.011) and subtract it from 6.
	+ Ex. 12 – 6 = 6
	+ That means that carbon has 6 neutrons
* The way you draw a carbon atom is with 6 protons and 6 neutrons in the nucleus and 6 electrons in the electron cloud.
* Don’t think that all elements are the same, some of them have different number of neutrons and electrons
* If there is a variation in the number of neutrons then it is said to be an isotope
* If there is a variation in the number of electrons then it is said to be an ion.
	+ If there are more electrons than protons then the atom has an overall charge of negative (-)
	+ If there are less electrons than protons then the atoms is said to have an overall charge of positive (+)
	+ If all is equal then the charge is neutral!

Hope this clarifies it a little more for you!!!