**Unit 6 Learning Targets: Atoms, the Periodic Table & Bonding**

(6.01) I can describe evidence supporting the existence of subatomic charged particles

(6.02) I can predict the resulting electric charge of an element based on a gain or loss of electrons

(6.03) I can distinguish metal from non-metal elements based on their properties

\*\*(6.04) I can name a compound based on its chemical formula

\*\*(6.05) I can create a chemical formula for a compound based on its name

(6.06) I can determine whether a substance is ionic or molecular based on its name, properties or chemical formula

(6.07) I can relate the position of an element in the periodic table to its atomic number and atomic mass.
(6.08) I can use the periodic table to identify metals, semimetals/metalloids, and non­metals.
(6.09) I can identify alkali metals, alkaline earth metals, transition metals, halogens, and noble gases.
(6.10) I can compare period and group trends of several properties.
(6.11) I can recognize that elements in the same group have similar properties.
(6.12) I can use the periodic table to compare elements in reference to ionization energy, electronegativity, and the relative sizes of ions and atoms.
(6.13) I can use the periodic table to determine the number of valence electrons (\*formulas and names).

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| **No Attempt**(No attempt at the concept) | **Beginning**(Demonstrates little evidence of understanding | **Developing**(Demonstrates partial understanding w/ significant errors) | **Capable**(Demonstrates partial understanding w/ minor errors) | **Strong**(Demonstrates a high level of understanding w/ minor errors) |  **Exceptional**(Demonstrates a thorough understanding) |
|  |  |  |  |  |  |
| **0** | **2** | **2.5** | **3** | **3.5** | **4** |
| I didn’t even try! | I tried but had NO CLUE! | I’m starting to get it but I still need LOTS of help! | I’m getting it but still need a little bit of help! | I am almost there! | I GET IT! |

\*\* Essential concepts in the course of general chemistry (YOU NEED TO KNOW THIS ☺)