Unit 5: Bonding

**Learning Targets & Success Criteria**

**Rubric for all Learning Targets**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **0** **No Evidence**  | **5** **Not Yet**  | **7** **Approaching**  | **8.5** **Proficient**  | **9 - 10** **Advanced**  |
| Left 2 or more questions blank on the assessment  | No evidence of proficiency with the learning target but attempted the questions.  | Shows beginning proficiency with the learning target, but is inconsistent or makes several errors (>4 errors) | Demonstrates understanding of most or all of the learning target, but misses no more than 1 success criteria or makes 3-4 errors  | Demonstrates mastery of learning target; makes no more than 1-2 minor errors  |

**LT 5.1: Use the periodic table to determine the type of bond formed between two atoms of a molecule (ionic, covalent, metallic, polar covalent) based on the properties of that atom.**

* I can use properties of a substance to determine what bond type it has.
* I can identify the type of bond created from the type of atoms.
* I can identify the type of bond created from the electronegativity difference between the atoms involved in the bond.
* I can explain why electronegativity differences cause the different types of bonds.

**LT 5.2 Draw Lewis Structures and use their molecular geometry to determine polarity.**

* I can determine the number of valence electrons of an atom and draw its Lewis Structure
* I can determine the number of valence electrons in a molecule
* I can draw Lewis Structures of molecules from their chemical formula.
* I can use the molecule’s shape to explain the difference between polar and nonpolar molecules.

**LT 5.3 Use the periodic table to write the formula for ionic compounds.**

* I can write the formula of a compound given 2 ions.
* I can write the formula of a compound given 2 elements (with Roman numerals).
* I can write formula of a compound that contains polyatomic ions.
* I can write formula of a compound given the chemical name (with Roman numerals).

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