Unit 8: The Mole & Stoichiometry

**Learning Targets**

Learning Targets are broken into success criteria—these are the individual skills you must demonstrate to show mastery of each learning target. They are shown as the bullets underneath the learning target. The general rubric below will be used with each of the learning targets:

**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 8.1: Use The Mole to relate volume and mass to the number of atoms in a sample.**

* I can calculate molar mass of a compound from its molecular formula.
* I can convert from grams/liters/particles to moles or moles to grams/liters/particles (1-step).
* I can convert from grams/liters/particles to grams/liters/particles using the concept of the mole (2-step).
* I can use the chemical formula and Avogadro’s number to determine how many atoms are in a substance.

**LT 8.2: Use the mole ratio to perform stoichiometric conversions to support the law of conservation of mass.**

* I can determine the mole ratio from a balanced chemical equation.
* I can use the mole ratio to convert between moles of one substance to moles of another substance.
* I can perform calculations to convert from grams/liters/particles of one substance to grams/liters/particles of another substance.
* I can analyze percent yield to identify sources of error in a chemical experiment.

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