

Unit Essential Question(s)

How is the concept of the mole used to quantify chemical reactions?

PA Academic Standards - Science & Technology

3.4.10/12.A. Explain and apply concepts about the structure and properties of matter.

Essential Content and Skills

("Upon completion of this unit I should understand and/or be able to...")

**YES
I Can!**

- ☐ Define the following terms: mole ratio, stoichiometry, limiting reactant, theoretical yield, actual yield, percent yield.
- ☐ Explain how a balanced chemical equation is analogous to a recipe.
- ☐ Describe why a balanced chemical equation represents a ratio based on moles, not mass, of reactants and products.
- ☐ Effectively use the methods of stoichiometry to examine the mass relationships which exist between reactants and products in a chemical reaction.
- ☐ Explain the concept of limiting reactants and the impact of this concept to chemical reactions.
- ☐ Correctly identify the limiting reactant in various chemical reactions based on calculations.
- ☐ Correctly calculate the percent yield of a particular product for a chemical reaction using the appropriate formula.

Chemistry Cp Study Guide

A Gutmann



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