Chemistry – Unit 9 Objectives
Stoichiometry I

By the time we finish this unit, you should be able to do these:

1. Review Concepts: a) Determine the molar mass of a substance and use it to convert between the mass and mole measurements. (U5) b) Relate coefficients and formulas to a molecular diagram of a reaction. (U7) c) Given a chemical reaction stated in words, write a balanced chemical equation. (U7)	
2. Starting with • a balanced chemical equation, • the number of **moles** of a reactant or product, determine the number of **moles** of any other reactant or product involved.	
3. Starting with • a balanced chemical equation, • the **mass** of a reactant or product, determine the **mass** of any other reactant or product involved.	

4. Starting with • a balanced chemical equation, • the **mass** of one reactant, • **mass** of product **actually** produced calculate the **percent yield** for the reaction.	
5. Starting with • a balanced chemical equation, • the **mass** of the reactants determine • which reactant is **limiting**, and why it limits the reaction, • the **theoretical yield** of a product.	
6. Given a balanced chemical equation and the amounts of reactants, sketch molecular diagrams to represent the reaction mixture before and after the reaction.	
Vocabulary to understand, distinguish, and use correctly: • Stoichiometry • Stoichiometric mole ratio • Theoretical yield • Actual yield • Percent yield • Limiting reactant	