## Unit 7 Study Guide

The student will be able to:

Determine molecular mass using a periodic table.

Convert from moles to grams multiply by molecular weight.

Convert from grams to moles divide by molecular weight

Convert from moles to molecules. Multiply by  $6.02 \times 10^{23}$ 

Convert from molecules to moles. Divide by  $6.02 \times 10^{23}$ 

Convert from grams to molecules. divide by molecular weight, Multiply by 6.02 x  $10^{23}$ 

Convert from molecules to grams. Divide by  $6.02 \times 10^{23}$ , multiply by molecular weight.

Know Avogadro's number. 6.02 x 10<sup>23</sup>

Determine Percent composition from mass.

Determine percent composition from a formula.

Determine the total mass and divide the mass of each element by the total mass.

Determine Empirical formulas from mass and from percent composition.

Percent to mass

Mass to moles

Divide by small

Multiply until whole

Determine the molecular formula from empirical formula when given molar mass.

Determine empirical mass and then divide the molar mass by the empirical mass

Determine Empirical formula from the molecular formula.

Simplest ratio of elements.