Coral Glades High School
2014 – 2015 Course Syllabus

Teacher:	Julie Kitchener	**Phone:**	754-322-1250
Subject:	Chemistry I & Chemistry 1 H	**Email:**	Julie.kitchener@browardschools.com
Room:	228	**Planning Hour:**	Period 5

Course Description:

Chemistry I will provide students with an opportunity to study the composition, properties, and changes associated with matter. Topics will include, but not be limited to: heat, changes of matter, atomic structure, bonding, the periodic table, formulas, equations, mole concept, gas laws, reactions, solutions, equilibrium systems, and oxidation reduction reactions. Laboratory activities, which include the use of the scientific method, measurement, laboratory apparatus, and safety, are an integral part of this course.

Resources:

Text: Class Website :	• Holt Modern Chemistry • www.kitchenerchem.tripod.com

Materials:

3 Ring binder or duo tang folder with prongs
Paper
Scientific calculator
Pen (blue or black ink)
2 pencils
highlighters

Evaluation:

Broward County Grading Scale:		**Approximate Grading Breakdown:**
90 – 100%	A	A point system is used in this class. The goal is to accumulate as many points as possible out of the total number assigned.
87 - 89%	B+	
80 – 86 %	B	
77 – 79%	C+	
70 – 76%	C	
67 – 69%	D+	
60 – 66%	D	
0 - 59%	F	

NOTE:

- *Midterm exam will cover all of semester one content and the final exam will cover all of semester two content. It will consist of multiple choice and problem solving questions which will require the use of higher order thinking skills.*
- *All school and county policies will be followed as per the Broward County Student Code of Conduct.*
- *Material in this syllabus is subject to modification by instructor if deemed necessary.*
- *Activities listed are tentative and may be supplemented or changed as deemed appropriate.*

Unit#: I	**Unit Title: PHYSICAL PROPERTIES OF MATTER**		**Pacing: 15/135 (11%)**
Concepts	**Resources**	**Benchmarks: Objectives and Skills** **www.floridastandards.org**	**Differentiated Instruction: Activities and Labs**
Lab Skills and Safety	Textbook pp.xviii-xxi Safety Contracts		Lab Safety Video Safety Rule Poster or Bumper Sticker
Intro to Matter	Chapter 1, Sec 2	SC.912.P.8.2	Demonstrations: -Elephant Toothpaste or Blue Bottle Experiment -Exploding Can Spaghetti and Marshmallow Challenge
Describe Matter	Chapter 1, Sec 2	SC.912.P.8.2, SC.912.P.10.2	Lab: Mass and Changes Activity: Histograms
Scientific Measurement	Chapter 2, Sec 3	SC.912.N.1.1, SC.912.N.1.3, SC.912.N.1.6, SC.912.N.1.7	Lab: Comparing Units of Volume Lab: Mass and Volume
Density	Chapter 2, Sec 3	SC.912.N.1.1, SC.912.N.1.3, SC.912.N.1.6, SC.912.N.1.7	Lab: Density of a Gas Lab: Thickness of Aluminum Foil
Unit#: II	**Unit Title: ENERGY – PARTICLES IN MOTION**		**Pacing: 15/135 (11 %)**
Movement of Particles	Chapter 1, Sec 2 Chapter 3, Sec 1	SC.912.P.8.3, SC.912.P.8.1	Demonstrations: -Popcorn (Diffusion of Gases) -Diffusion of Liquids in Hot and Cold Fluids -Gold Penny (Diffusion of Solids)
Effect of Pressure	Chapter 10,Sec 1-3 Chapter 11	SC.912.P.12.10, SC.912.P.10.5	Demonstrations: -Blow Up A Student -Soda Can Demo -Fountain Lab: PVTn
Unit#: III	**Unit Title: ENERGY AND STATES OF MATTER**		**Pacing: 14/135 (10 %)**
Energy Involved in Changes	Chapter 10, Sec 4 Chapter 16, Sec 1	SC.912.P.10.1, SC.912.P.10.2, SC.912.P.10.4, SC.912.P.10.5, SC.912.P.10.6, SC.912.P.10.7	Lab: Icy Hot Heating and Cooling Curves Lab: Calorimeter - Calculate Specific Heat of an Unknown Metal
Unit#: IV	**Unit Title: DESCRIBING SUBSTANCES**		**Pacing: 14/135 (10 %)**
Pure Substances vs Mixture	Chapter 1, Sec 2 and 3 Chapter 7	SC.912.P.8.7	Demo: Separating Mixtures
Elements vs Compounds	Chapter 1, Sec 3	SC.912.P.8.5	
Avogadro's Hypothesis	Chapter 7	SC.912.P.8.7	Demonstrations: -Electrolysis of Water -Electrolysis of Copper Chloride Activity: Dalton's Playhouse
Chemical Names and Formulas	Chapter 7, Sec 1	SC.912.P.8.7	Activity: Ball and Stick Models

Unit#: V Unit Title: COUNTING PARTICLES TOO SMALL TO SEE			**Pacing: 10/135 (7 %)**
The Mole	Chapter 3, Sec 3	SC.912.P.8.9	Activity: Relative Mass Size of the Mole
Molar Mass	Chapter 3, Sec 3 Chapter 7, Sec 3	SC.912.P.8.9	Activity: Mole Conversion
Percent Composition	Chapter 7, Sec 3	SC.912.P.8.7	
Empirical and Molecular Formulas	Chapter 7, Sec 4	SC.912.P.8.7	Lab: Empirical Formula
Unit#: VI Unit Title: PARTICLES WITH INTERNAL STRUCTURE			**Pacing: 14/135 (10 %)**
Atomic Theory	Chapter 3, Section 1 and 2	SC.912.P.8.3, SC.912.P.8.4,	Lab: Sticky Tape Demonstration: -Soda Can Spectroscope - Van der Graaf Generator
Chemical Families	Chapter 5, Section 1 and 2	SC.912.P.8.7	
Conductivity	Chapter 6, Sec 1, 2 and 3	SC.912.P.8.8	Lab: Conductivity of Solutions
Determining Nomenclature of Ionic Compounds	Chapter 7, Sec 1	SC.912.P.8.8	Lab: Electrolysis of $CuCl_2$
Unit#: VII Unit Title: CHEMICAL REACTIONS: PARTICLES AND ENERGY			**Pacing: 15/135 (11 %)**
Chemical Equations	Chapter 8 Section 1	SC.912.P.8.2, SC.912.P.10.12	
Reaction Types	Chapter 8 Section 2	SC.912.P.8.8	Activity: Combining Solutions Nail Lab
Unit#: VIII Unit Title: INTRODUCTION TO STOICHIOMETRY			**Pacing: 14/135 (10 %)**
Stoichiometry	Chapter 9, Section 1	SC.912.P.8.9, SC.912.N.1.5, SC.912.N.2.5	Lab: Copper-Silver Nitrate
Stoichiometry Calculations	Chapter 9, Section 2	SC.912.P.8.9	
Limiting Reactant and Percent Yield	Chapter 9, Section 3	SC.912.P.8.9	Lab: Limiting Reactant
Unit#: IX Unit Title: FURTHER APPLICATIONS OF STOICHIOMETRY			**Pacing: 14/135 (10%)**
Gas Volumes	Chapter 11, Section 3	SC.912.P.12.10	Lab: Molar Volume of a Gas
Molar Concentration	Chapter 17 Section 1	SC.912.P.12.12	
Reaction Enthalpies	Chapter 15, Sec 1 Chapter 16, Section 1	SC.912.P.10.6	Heat of Combustion Lab
Unit#: X Unit Title: CHEMISTRY & UNIFYING THEMES			**Pacing: 10/135 (7%)**
Notes: *These benchmarks are linked to Chemistry NGSSS but are not covered in previous chapters. They may be covered at any time throughout the curriculum			