Name: _____ Date: _____

BCI SCIENCE
SCH 4CI

Unit Outline:
Matter & Qualitative Analysis

DAY BREAKDOWN

Date	Pages	Topics	Homework/Assignments	Evaluation	
1		Introduction, course outline, student info &TP, Safety	p. 2 # 1 -4		/4
2		**Topic:** *Safety & Equipment* **LG: Students will be able to identify hazard symbols, select appropriate lab equipment and follow safe lab procedures.** -(WS) WHMIS & MSDS, - (WS) Lab Equipment , - (L) Lab Discovery	p. 3-5 # 8, 10, 14, 15 return safety sheet, read 1.1 Activity: Identifying a Mystery Powder p. 8	- (Q) Safety Quiz	/4
3	6 - 9	**Topic:** *Qualitative Analysis Using Physical and Chemical Properties* **LG: Students will select qualitative tests to identify unknown substances.** - (Q) Safety Quiz - (L) Identifying Mystery Powder	Finish 1.1 Read section 1.2 p. 12 # 1	Activity 1.1	/4
4	10-12	**Topic:** *Observation, inference, and Empirical and Theoretical Knowledge* **LG: Students will make inferences from gathering qualitative & quantitative observations.** - (L) Dancing Raisins - (N) Observations vs. Inferences - (N) Empirical vs Theoretical Knowledge	- (HO) Building Scientific Knowledge p. 12 # 2-6		/4
5	13-15	**Topic:** *Early Atomic Models* **LG: Students will be able to explain how early models of the atom have contributed to the current understanding of the atom.** - (A) Early Models of the Atom	- (HO) Rutherford's Gold Foil Experiment	1.3 Self-quiz	/4
6	16-20	**Topic:** *Electromagnetic Spectrum & Spectroscopy* **LG: Students will identify various types of Electromagnetic Radiation and use line spectra as a qualitative tool to identify composition of matter.** - (N) Electromagnetic Spectrum - (L) Identifying Gases Using Line Spectra	- (L) 1.5	- (L) 1.5	/4
7	21-22	**Topic:** *Bohr Model of the Atom* **LG: Students will analyze emission spectra to identify composition of matter.** - (HO) workbook 1.1-1.3 - (N) Bohr Model of the Atom - (HO) workbook 1.5 - (HO) 1.5 Determining the Composition of a Star	- (HO) 1.5 Determining the Composition of a Star		/4
8	23-26	**Topic:** *Flame Tests* **LG: Students will analyze flame test results to identify the composition of unknown substances.** - (L) 1.7 Flame Tests - (HO) 1.4 – 1.7 Self-Quiz	- (L) 1.7 - (A) Case Study: Qualitative Analysis of Concrete	- (L) 1.7 - (A)	/4
9	29-34	**Topic:** *Ionic Compounds* **LG: Students will analyze the physical and chemical properties of ionic compounds** - (N) Conductivity & Ions - (N) Dot diagrams & Ionic Compounds	p. 35 # 1-7 - (HO) Formation of Ionic Compounds-Additional Practice		/4
10	36-44	**Topic:** *Covalent Bonding* **LG: Students will review the properties of covalent compounds and explain the effect of molecular shape on physical properties.** - (N) Covalent Bonding - (Ac) Building Molecular Models p. 44 - (HO) Self-quiz 1.11 – 1.13	p. 45 # 1-10		/4

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11	46-47	**Topic:** *Comparison of Properties of Ionic and Molecular Compounds* **LG: Students will sort ionic and covalent compounds based on their physical properties.** - (L) 1.13 Classifying Solids Using Physical Properties	- (L) 1.13	- (L) 1.13	/4
12		**Topic:** *Naming Ionic and Multivalent Ions* **LG: Students will be able to name ionic and multivalent ions.** - (HO) Naming Ionic Compounds - (WS) Ionic & Multivalent Ions	- (WS) Ionic Naming Practice		/4
13		**Topic:** *Naming Polyatomic Ions & Derivatives* **LG: Students will be able to name polyatomic ions and derivatives.** - (HO) Naming Polyatomic Ions & Derivatives - (WS) Naming Polyatomic Ions & Derivatives	- (WS) Naming Polyatomic Ions & Derivatives		/4
14		**Topic:** *Naming Covalent Compounds* **LG: Students will be able to name covalent compounds.** - (HO) Naming Covalent Compounds - (WS) Naming Covalent Compounds	- (WS) Naming Covalent Compounds		/4
15		**Topic:** *Naming Acids & Derivatives* **LG: Students will be able to name acids and derivatives.** - (HO) Naming Acids & Derivatives - (WS) Naming Acids & Derivatives	- (WS) Naming Acids & Derivatives		/4
16		**Topic:** *Balancing Reactions* **LG: Students will be able to balance chemical reactions in order to satisfy the Law of Conservation of Mass** - (Q) Naming Compounds - (HO) Balancing Reactions - (WS) Balancing Reactions	- (WS) Balancing Reactions	- (Q) Naming Compounds	/4
17	48-53	**Topic:** *Different Types of Chemical Reactions* **LG: Students will be able to classify the type of reaction and predict products.** - (N) Types of Reactions - (WS) Balancing & Types of Reactions	- (WS) Balancing & Types of Reactions	- (Q) Types of Reactions	/4
18	54-62	**Topic:** *Solubility Rules* **LG: Students will use the solubility rules to determine the states of products from double displacement reactions.** - (Q) Types & Balancing of Reactions - (N) Solubility Rules and Ionic Equations - (HO) Predicting Precipitate Formation	p. 62 # 1-3	- (Q) Solubility	/4
19	63-64	**Topic:** *Qualitative Analysis Using Solubility Rules & Ppte Rxns* **LG: Students will observe double displacement reactions and refer to the solubility rules to filter out ions.** - (L) 1.17 Determining the Presence of Ions in a Solution	p. 71 # 1-18	- (L) 1.17	/4
20	68-73	**Unit 1 Review** - (Q) Solubility - (t/u) Unit 1 Assignment	p. 19 -30		
21		**Unit 1 Review** - (HO) Unit 1 Practice Test			
22		**Unit 1 Test**		Unit Test	