

Sept 4

1. Welcome
2. Course outline
3. Textbook
4. Review assignment

Sept 5

1. Discussion of grade 11 units 1&2
2. Continue working on review

Sept 6

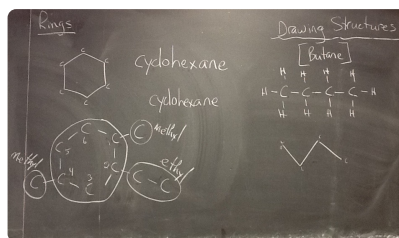
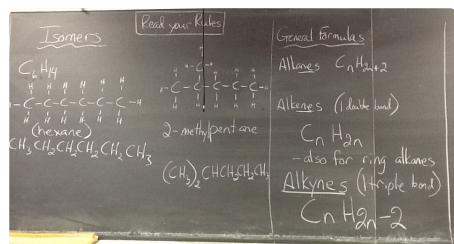
1. Math of chemistry
 - A. Mole
 - B. % composition, empirical, molecular
 - C. Stoichiometry
 - D. Other formulas
2. Work on review

Sept 7

1. Handin review
2. Begin organic chemistry
 - A. Read page 6 - past, present, misconception
 - B. Importance of carbon
3. Hydrocarbons - chains of carbon surrounded by hydrogen atoms
4. Naming package
 - A. Quiz on Wednesday and Friday next week

Sept 10

1. Building hydrocarbons
 - A. Shape, isomers, Cis and trans
2. Naming cyclo
3. Work on naming



Sept 11

1. Properties of hydrocarbons, non polar, substitution and addition reaction
2. Get ready for quiz tomorrow

Sept 12

1. Quiz #1
2. Naming halo, nitro
3. Naming amino

Sept 13

1. More on reactions introduce Markovnikov's rule
2. Substitution
 - A. Halogenation
3. Addition
 - A. Halogenation
 - B. Hydrogenation - Pt catalyst
 - C. Hydrohalogenation
 - D. Hydration
4. Elimination reaction - strong base required
5. Textbook Page 27, 31, 37

Sept 14

1. Quiz #2
2. Naming alcohols, ethers, ketone and aldehydes
3. Working on part 3

Sept 17

1. Carboxylic acids
2. Esters
3. Work

Sept 18

1. Test # 1
2. Amides
3. aromatics

Sept 19

1. Quiz # 3

2. Reactions #2

A. Alkenes to alcohols - addition

B. Alcohols to alkenes - elimination (sulfuric acid)

C. Alcohols to ethers - condensation reaction (dehydration - sulphuric acid)

D. Alcohol to aldehyde - oxidation of primary alcohol

E. Aldehyde to alcohol - reduction (hydrogenation)

F. Alcohol to ketone - oxidation of secondary alcohol

G. Ketone to alcohol - reduction (hydrogenation)

Sept 20

1. Quiz #4

2. Reactions #3

A. Preparing amines

B. Aldehydes to carboxylic acid

C. Esterification - condensation reaction

D. Amide formation - just like esters

E. Hydrolysis - add water!

Sept 21

PD day- no classes

Sept 24

1. Orgo reactions math

2. Three problems overhead

3. Worksheet practice problems

4. Get ready for naming test

Sept 25

1. Work period

A. Review naming chemistry

B. Textbook chemical reactions

C. Orgo math worksheet

D. Physical properties info gathering

a. Boiling, melting, solubility, polar and non polar, intermolecular forces

Sept 26

1. Naming test
2. Continue with working independently

Sept 27

1. Physical properties of organic families
 - A. Melting point - movement
 - a. Polarity
 - b. Packing ability
 - B. Boiling point - separation
 - a. Polarity
 - b. Surface area
 - c. Chain length
 - d. Branching
 - C. Solubility
 - a. Polarity
 - b. Parts of the molecule
 1. Functional group
 2. Hydrocarbon size
 - D. Solubility
2. Intermolecular forces
 - A. Nonpolar - London dispersion force
 - B. Polar
 - a. dipole dipole
 - b. hydrogen bonding
3. Examples
4. Read and make notes from textbook pages on board

Sept 28

1. Work period
 - A. Orgo math
 - B. Orgo reactions
 - C. Orgo properties
2. Review questions chapter 1

Oct 1

1. Polymers
2. Handout / worksheet

Oct 2

1. Reactions worksheet
2. Work

Oct 3

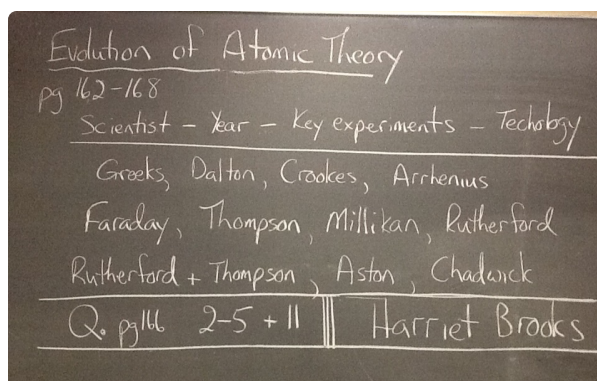
1. Get ready for test
2. Ch 1 review
3. Ch 2 review couple of questions
4. Unit review

Oct 4

1. Organic chemistry unit test

Oct 5

1. Unit 2 - atomic structure
 - A. Greatest discoveries in chemistry video
 - B. Section 2.1 know the scientists
 - C. Section 2.2 know Harriet



Evolution of Atomic Theory
pg 162-168

Scientist	Year	Key experiments	Technology
Greeks, Dalton, Crookes, Arrhenius			
Faraday, Thompson, Millikan, Rutherford			
Rutherford + Thompson, Aston, Chadwick			
Q. pg 166	2-5 + 11		Harriet Brooks

Oct 9

1. Intro to quantum
 - A. Blackbody radiation
 - B. Photoelectric effect
 - C. Bohr's atomic theory - H spectrum
2. Read 3.3-3.4

Oct 10-11

1. Bohr theory
2. Quantum numbers - notes on board

Oct 12

1. Present meaning of quantum numbers
2. Energy level diagrams

Oct 15

1. More energy diagrams
2. Electron configuration
3. Explaining P/T, ion charges, magnetism, and weird electron configurations

Oct 16

1. Worksheet on electron configuration
2. Reading on quantum theory
3. Applications of quantum theory

Oct 16
1) Concerns?
2) Read 3.7 + 3.8
3) Practice
pg 197: 1, 5, 9, 12, 13, 14
pg 219 + 220

Louis de Broglie
Erwin Schrödinger
Heisenberg Uncertainty Principle
Electron Probability Density
Limitations of Quantum Mechanics
Applications of Quantum Mechanics

Oct 17

Oct 16
Activities for today:
(1) Worksheet - practice
(2) Making a New Periodic Table
could be done (3) Note: 3.7 + 3.8 Scientists, Theories
Limitations, Applications
should be done (4) Pg 197 1, 5, 9, 12, 13, 14

Oct 18

1. Bonding handout

Oct 19

1. Quiz them about bonding
2. Drawing Lewis structures
3. Rules
4. Resonance
5. Coordinate covalent bonds
6. Work from textbook

Oct 22

1. Lewis structures
 - A. Charges with poly atomic ions and coordinate covalent bonds
 - B. Draw a couple
2. Valence bond theory
 - A. Empirical evidence
 - B. Hybridization
 - C. Evidence
 - D. Multiple bonds

Oct 23

1. Notes on VSEPR - questions
2. Textbook questions - shapes

Oct 24

1. Discussion on valance bond theory
2. VSPER worksheet - did not get
3. Notes on intermolecular forces - skim over 4.3 and 4.4
 - A. Polar molecules textbook questions
 - B. Intermolecular forces textbook questions

Oct 25

1. Aggregates
2. Ionic crystals - lattice energy
3. Metal crystals
4. Molecular crystals