

(April 2)

1. Making Stock Solutions

- Make 100ml of a 0.5 mol/L solution of copper II sulphate pentahydrate

- Make 4 other solutions

0.2 M, 0.1 M, 0.05 M, 0.01 M

- keep samples of each solution made

2. Read over CuSO<sub>4</sub> Lab

- Spectrophotometer Questions

3. Working on Extra questions

- dilutions, review sheet

April 3

1. Filter your stock solution

2. Discuss how to calculate the required volumes

3. Obtain your samples for the spectrophotometer

4. Working on practice questions

- solution concentration

April 4

1. Working on lab

2. Working on review sheet

April 5

1. Make sure everyone has lab write up expectations

2. Discuss the spectrophotometer

- how it works

- procedure they would need to follow

3. Begin running samples

4. Homework: Lab and review sheet

Lab will be due next Thursday !!

April 10

1. Review Lab - Due Thursday

- Went over lab write up

2. The meaning of a balanced equation

3. Simple Mole  $\rightarrow$  Mole Stoichiometry



4. Worksheets

- stoichiometry I and II

April 11

1. Mass to mass Stoichiometry

2. More examples

3. More Worksheets

April 12

1. One example of standard Mass  $\rightarrow$  Mass Stoichiometry
  2. Concept of limiting + excess reagents
  3. Procedure for Calculating limiting reagent
  4. Worksheet - pg 153 text questions

April 13

Hand In  
CUSA Lab 08

2. Percent Yield      Yield  
                        Actual  
                        Theoretical  
                        % yield

### 3. Worksheets again !!

April 16

1. Topics on Unit Test
2. Strategies + bring a calculator
3. Practice Test

April 17

1. Concerns - Example of stoichiometry
2. Continue to prepare for Unit Test

April 18

1. Unit Test : Quantitative Chemistry

April 19

Start Organic Unit

1. What is organic chemistry?

- The study of compounds based on Carbon

2. Properties of carbon

3. Classifying organic compounds

Hydrocarbons

OR

Hydrocarbons with unique attachments

4. Classifying Hydrocarbons - table 1 pg 181

5. Naming Hydrocarbons

April 23

1. Go over handout from B4 weekend  
- emphasize stuff to remember

2. Ways to draw compounds

3. Naming Alkane/enes/ynes  
- numbers to indicate attachments

Naming

Reactions

Properties

April 24

1. Ways to represent organic compounds

2. Naming Branched Hydrocarbons

3. Isomers

April 25

1. Worksheets on naming + Drawing Compounds

2. Work period on naming Hydrocarbons

April 26

1. Properties of Hydrocarbons

2. Chemical Reactions of hydrocarbons

April 27 - Quiz on Hydrocarbon naming

1. Oil Refining

-fractional distillation

2. Read + Answer questions

3. Safety Terms of Organic Compounds

} Assignment

April 30

## 1. Review properties of hydrocarbons

## 2. Oil Refining - Crude oil

### 3. Fractional Distillation

-apparatus

- procedure for separating two compounds
- graphing a distillation activity

May 1

## 1. Functional Groups - Common Types: O, N, Halogens

3. Alcohols  $\rightarrow$  Ketones Carbonyl

## Carboxy

## 4. Identify Type of molecule Amino

May 2

## 1. Check Homework

## 2. Alcohols $\rightarrow$ Amides?

### 3. Worksheet : ID Type + Name

May 3

1. Quick review of all the functional groups
2. Textbook Read + Make Notes
  - Physical Properties of each group

May 4

Examples of how functional groups affect boiling point, solubility

1. Chemistry of functional groups
2. Hydrocarbons - combustion and addition reactions
3. Addition reactions where water or HCl is added
4. Ester reactions - alcohol and carboxylic acid
5. Amide reactions - amines and carboxylic acids

May 7

1. Polymers - what is a polymer

Natural polymers: cellulose, proteins, nucleic acid

Artificial polymers: plastic, teflon, polyester, nylon

Addition polymers - ethene, propene

Condensation polymers - ester and amine linkages

Crosslinking

2. Properties of organic compounds

3. Naming of organic compounds

May 8

1. Uses of organic compounds - video

May 9

1. Finish video on uses of organic molecules

May 10

1. Practice test
2. Summarize topics on test

May 10	
1) Review /Catch up	Page 256-8
2) Practice Test (not everything)	-
3) Naming, Drawing, Properties Reactions, Applications -Video Safety - 215 → 217	

May 11.

1. Review
1. Slime, silly putty, superball lab activity

Need to Remember	
Root Words	meth → dec
Functional Groups	
$\text{NO}_2$	$-\text{OH}$
$-\text{C}^-$ (Halogen)	$-\text{C}^-\text{H}$
$-\text{C}^-$	$-\text{C}=\text{O}$
	$-\text{C}^{\text{II}}-$
	$\text{C}=\text{N}$
	$\text{C}=\text{N}$
	$-\text{C}-\text{O}-\text{C}-$

May 14

1. Review
2. Topics of test
3. Two days for test? Fire drill may 15

Properties	
dec	page 187
	{ Hydrocarbons 238
	188 240 } polymers
	207 }
	208 }
	213 } functional groups
	219 }
	224 }
	229 }

May 15

1. Unit 3 test
2. Only the multiple choice today
3. Fire drill

May 16

1. Part 2 of Unit test - Short answer

May 17

1. Water chemistry - set of questions to research class will be in the library

May 18

1. Water chemistry - ppm, solubility, precipitation reactions
2. Section 4.1 - 4.4 covered in the two days
3. Section 4.1-4.6 self quiz, bottled water, testing for ions worksheet

## May 22

1. Environmental chemistry
2. Water is the number one resource we should concern ourselves with
3. Properties of water
  - Universal solvent
  - Density
  - Specific heat capacity
4. Analyzing water quality
  - Pollutants - ppm
  - Hard water
5. Removing impurities
  - Precipitation reactions
  - Net ionic reactions reminder

## May 23

1. Qualitative versus quantitative water analysis
2. Flowchart, solubility chart, flame test
3. Math of water quality ppm

## May 24

1. Precipitate reaction and stoichiometry
2. Sample calculation worksheet
3. Making a guided note on acids and bases

## May 25

1. Board note on acids, bases, dissociation, ionization, strong and weak

## May 28

1. The self ionization of water
2. The pH scale
3. Calculating pH, the difference in pH values

May 29

1. The reactions of acids and bases
2. Acid rain

May 30

1. The titration

May 31 / June 1

1. Unit test on enviro chemistry

June 1 or 4

1. Intro to unit 5 - electro chemistry
2. The redox reaction
3. The terms of the redox reaction pg 374

June 5

1. Oxidation numbers
2. Identifying redox reactions involving nonmetals
  - Assign oxidation numbers
  - Look at how they change
  - Ox number increases - oxidation
  - Ox number decreases - reduction

June 6

1. Making a battery - terms conductor, insulator, electrolyte
2. The activity series
  - How is it put together
  - How is it used

June 7

1. Hand back enviro test
2. Review activity series
3. The galvanic cell terms

June 8

1. Galvanic cell
2. Quiz on redox reactions
3. Labeling a redox reaction

June 11 + 12

Galvanic cell review and importance of activity series

corrosion and factors that increase corrosion

Compare copper, zinc and iron

Factors that affect prevent corrosion

Terms

Galvanizing

Cathodic protection

Sacrificial anode

Impressed current

June 13

Practice test

June 14

Unit test electrochemistry

June 15 - 19

Exam review days

June 21

Exam 12:30

SCH 4C1			rm 3-8
Unit 1	22	q	(7 short answer)
Unit 2	14	q	(9 calculations)
Unit 3	23		scantan
Unit 4	25		(1 SA, 1 calc)
Unit 5	16		(1 SA)

Exam breakdown