Date Feb 6 2012

What do the following mean to me

- Grade 12 - you know what is required to pass courses!

- College Chemistry - It is challenging but each of you can pass!!

Some Material will be easy – straightforward but you need to work

Some material will be hard - homework is required

Things to know:

Textbook will be the main focus of this course

Solutions will be online

Helpful tools will be online

Let's visit my website .....

Course Outline .... yes an exam .... you need to remember stuff

Textbook: Yours to borrow ... take care of it $

Homework - Log in to explore learning

- completed #1 + #2 Are you ready?

Date Feb 7

Continue with Intro to Chemistry

Matter flow chart

Element List

Complete intro exercises!!

Calculating p^{+1}, e^{-1}, n^{0}

Date Feb 8

The Atomic Models

Bohr-Rutherford and Lewis

Make Some Diagrams (only for first 20 elements)

Periodic Table

Regions, Groups, Info that is contained

Homework - log on to Gizmos

- Periodic Table activity worksheet
- Quiz on Elements in a couple of days

Date Feb 9

Section 1.2

Terms of Experimentation

- observation
- inference
- empirical
- theoretical

- models

Worksheet - Shuttle Accident

Date Feb 10

Mystery Powder Lab

Date Feb 13

1. Collect Mystery Powder Lab
2. History of the Structure of the atom
   - Models
   - Scientists
3. Video – Obervations + Inferences
   - TVO Structure of the Atom

Date Feb 14

Review History

Emped → Chadwick

The Electromagnetic spectrum terms

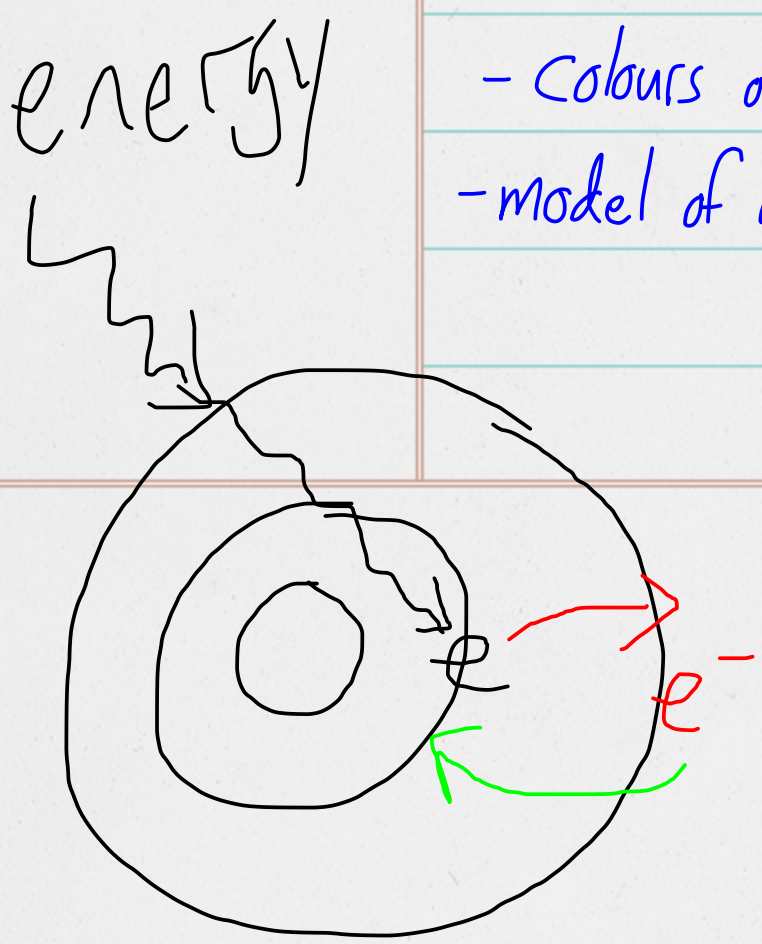
- ch. 1.4

What is light? → Energy Colour = 1 type of energy

- Spectroscope activity
- Sunlight, Fluorescent light, Hydrogen Light

Bohr Model of the Atom

- Colours of line spectrum = circles drawn
- model of what may be happening



excited vs ground

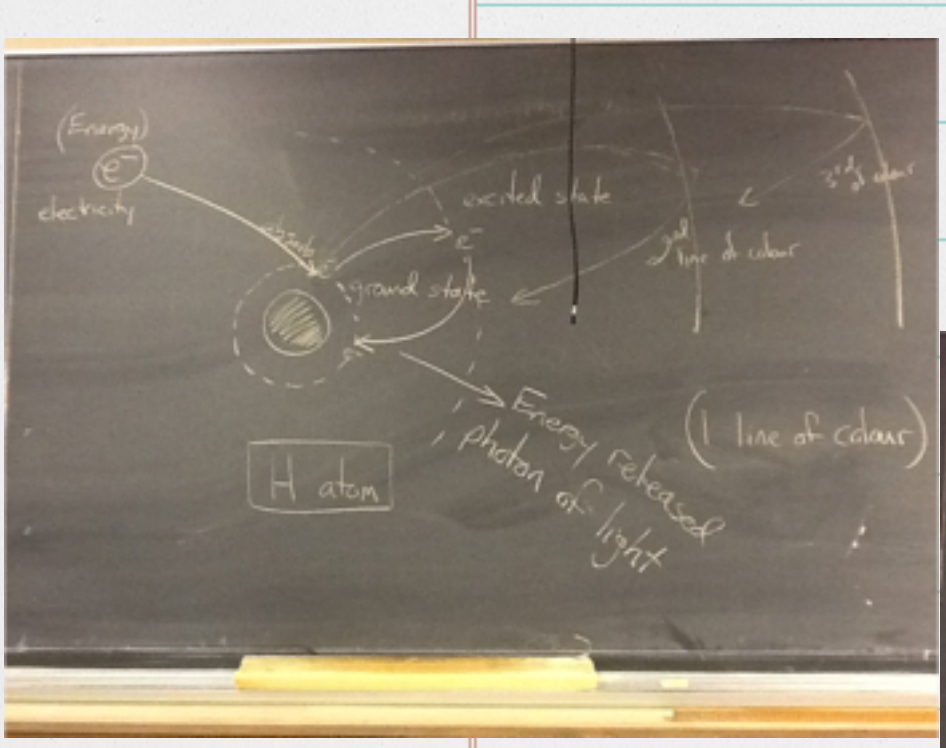
Date Feb 15

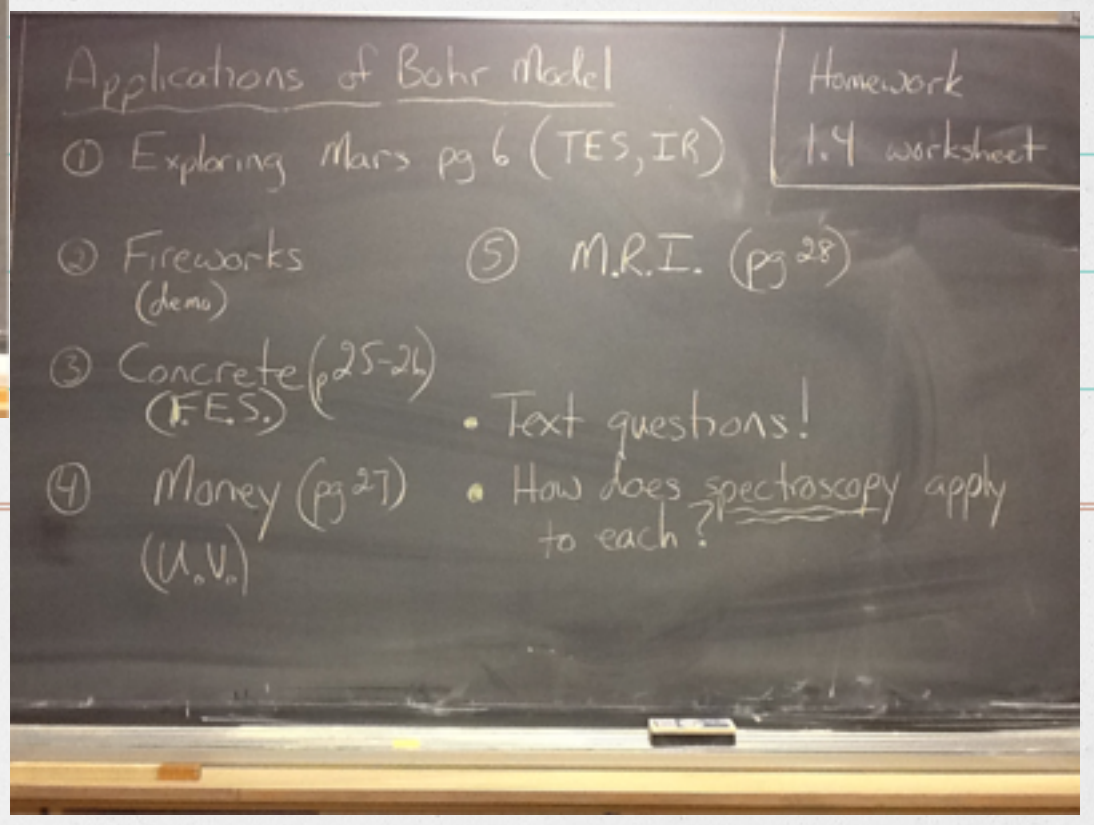
Review Bohr Model

- provide clues that this will not be the final model
- emphasize term understanding

Applications of Bohr's Model

- Spectroscopy
  - Mars, fireworks, concrete, money, MRI
- Read + Text questions





Date Feb 16

1. Identifying Types of Compounds
   Conductivity - Ionic - why?

2. Forming Ions + Ionic Bonding

3. Properties of Ionic Compounds

4. Naming Ionic Compounds

tomorrow

Date Feb 16

1. Electromagnetic Spectrum Homework
2. Conductivity – Why does it occur?
   - a test to determine type of compound
   - Section 1.11
   - Modelling Ionic Bonding
   - Properties of ionic Compounds

Worksheet 1.11 for homework

Date Feb 17

1. Take up Worksheet 1.11

2. Naming Ionic Compounds
   pg 491-496

3. Naming Worksheets

Date Feb 21

1. Quick Review

Name: Simple + transition

Formula: Simple + transition

2. Polyatomic Ions

- Worksheet

3. Molecular Naming

- Worksheet

tomorrow

3. Molecular Compounds

- Modelling F_2

- tomorrow start with O_2, H_2O, NH_3

Date Feb 22

1. Modelling Simple Covalent (Molecular) Compounds

2. Naming Molecular Compounds

3. Types of Molecular Compounds
   - Polar vs Non Polar

3. Naming Review Sheet
   - test friday

Date Feb 23

1. Polar vs Non Polar Compounds
   - boiling points
   - solubility

2. Electronegativity

3. Polar Bonds

4. Polar Molecules

5. Intermolecular Forces

Date Feb 24

1. Intermolecular forces
   - boiling points
   - solubility

2. Types of reactions

3. Balancing Equations

read

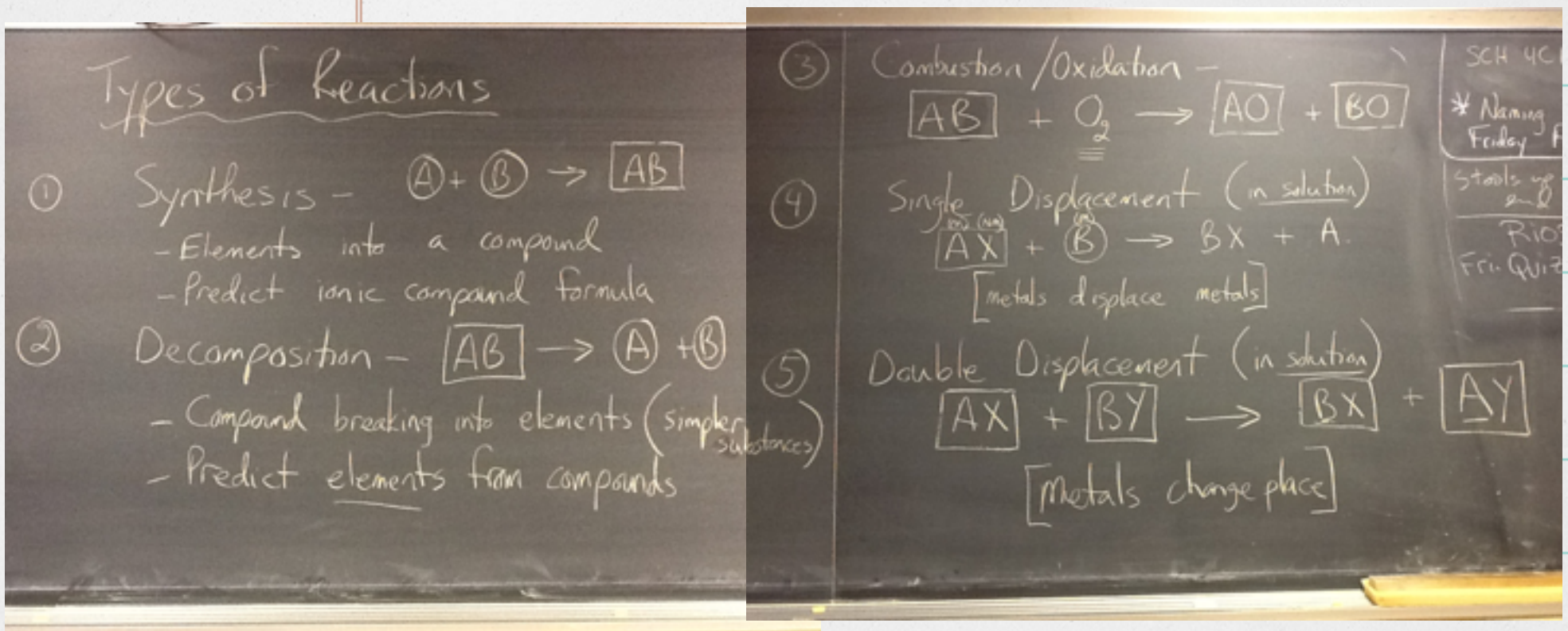
Naming Test!

Date Feb 27

1. Types of Reactions

2. Balancing

Work Time !!



Naming Test for Absent Students

Date Feb 28

1. Solutions for Types of Rxn's Worksheet

2. Balancing Review

3. Work on Balancing Equations

Date Feb 29

1. Reactions in solution

2. Solubility - Define
   - Saturated, unsaturated
   - high + low solubility

3. Solubility Table

Table 1 Solubility Rules for Ionic Compounds in Water

Anions	+	Cations	→	Solubility of compounds
most		alkali ions (Li^+, Na^+, K^+, Rb^+, Cs^+, Fr^+)		soluble
most		hydrogen ion, $H^+_{(aq)}$		soluble
most		ammonium ion, NH_4^+		soluble
nitrate, NO_3^-		most		soluble
acetate, $C_2H_3O_2^-$		Ag^+		low solubility
		most others		soluble
chloride, Cl^- bromide, Br^- iodide, I^-		Ag^+, Pb^{2+}, Hg_2^{2+}, Cu^+, Tl^+		low solubility
		all others		soluble
sulfate, SO_4^{2-}		Ca^{2+}, Sr^{2+}, Ba^{2+}, Pb^{2+}, Ra^{2+}		low solubility
		all others		soluble
sulfide, S^{2-}		alkali ions, $H^+_{(aq)}$, NH_4^+, Be^{2+}, Mg^{2+}, Ca^{2+}, Sr^{2+}, Ba^{2+}, Ra^{2+}		soluble
		all others		low solubility
hydroxide, OH^-		alkali ions, $H^+_{(aq)}$, NH_4^+, Sr^{2+}, Ba^{2+}, Ra^{2+}, Tl^+		soluble
		all others		low solubility
phosphate, PO_4^{3-} carbonate, CO_3^{2-} sulfite, SO_3^{2-}		alkali ions, $H^+_{(aq)}$, NH_4^+		soluble
		all others		low solubility

Date March 1

1. Handback + correct naming test

2. Steps to determine the net ionic equation

(A) complete reaction

(B) determine if precipitate forms

(C) write balanced equation

(D) Total Ionic Equation - (aq) → dissociate
(S) → stay together

(E) Net ionic equation

- cross out ions that stay the same (spectator ions)

- rewrite equation with remaining ions

Date March 2

1. Correct Net Ionic Equations
   - need to do Monday!
2. Begin Review
   - Textbook is good
   - "SCH 4C Unit 1 Review" search on google!

Date March 5

1. Net Ionic Equations - Solutions

2. Naming Chemicals

3. Bonding + Polarity

4. Test Tomorrow - March 6

Date March 6

Unit Test

Need Solubility chart

Polyatomic Ions

Periodic Table

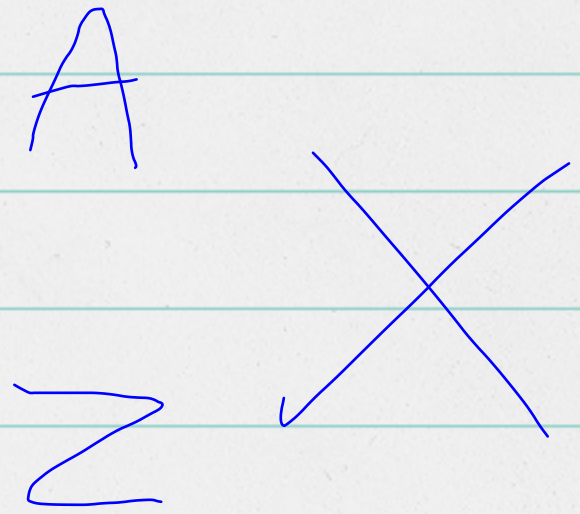
Scantron Cards

Date March 7

1. Math Basics
   - Significant digits
   - Scientific Notation

2. Calculating Atomic Mass
   - protons
   - neutrons
   - electrons

3. Standard Atomic Notation



Date March 8

1. Atomic Mass
   - not always the periodic table values
2. Isotopes
   - Define
   - calculating

Date March 9

1. Compounds + Mass

Molecules — molecular mass

Ionic Compounds — formula unit mass

Elements - atomic mass

2. The Mole

- Molar mass