SNC2DI

Chemistry Learning Goals

- ☐ Lab safety→ know the safety rules of our science classroom
- ☐ WHMIS→ be familiar with the main components of WHMIS
- ☐ HHPS→ recognize the 4 household hazardous product symbols and the 3 shapes that can surround them
- ☐ Classifying Matter→ define matter and be able to classify various substances into the two main categories and 4 sub-categories of matter
- ☐ Periodic Table→be familiar with how the periodic table is organized (i.e. atomic #'s, periods, groups) and locate various groups (i.e. metals, non-metals, metalloids; main group elements, transitional and inner transitional metals; & the 4 families with names: Alkali & Alkaline Earth Metals, Halogens and Noble gases)
- ☐ Atoms over the years→explain the changing model of the atom and people involved in each from the billiard ball to raisin muffin, to nuclear and finally the planetary model
- ☐ Atoms & their composition→ understand how to determine the number of protons, electrons and neutrons in each element when neutral and when ions are formed
- ☐ How to draw atoms→ be able to draw the Bohr-Rutherford and Lewis Dot Diagrams (aka: E.D.D) for the first 20 elements; also be familiar with the E.D.D for all main group elements
- ☐ Classifying compounds→ understand how to classify compounds as Ionic or Covalent
- ☐ Ionic compounds→ know the properties of ionic compounds and be able to use E.D.D to show how they bond, the ions formed and the chemical formulas of each
- ☐ Covalent compounds→ know the properties of covalent compounds and be able to use E.D.D and structural diagrams to show how they bond and the chemical formulas of each
- ☐ Nomenclature and Writing Chemical Formulas→ be familiar with the rules in naming and writing chemical formulas for binary ionic and molecular compounds as well as those including polyatomics
- ☐ Chemical Reactions→ recognize the different types of chemical equations (i.e. word and skeleton, and be able to go from one type to the other) and know the clues that indicate a chemical change (as opposed to a physical change) has occurred
- ☐ Balancing Equations→ understand why equations must be balanced (The Law of Conservation of Mass) and know how to balance both skeleton and word equations
- ☐ Types of Reactions→be able to classify reactions as either synthesis, decomposition, single or double displacement and knowing this be able to predict the products formed, given the reactants; know how to use the activity series of metals or halogens for single displacement rxns
- ☐ Rates of Reactions→know the 4 factors that affect the rates of reactions and how they effect it; also be able to explain how catalysts can affect the rates of reactions and why they are used
- ☐ Acids and Bases→be familiar with: the properties of acids and bases; the various indicators (red and blue litmus paper, pH paper, phenolphthalein, bromothymol blue and cabbage juice) we used to test and the results of each in determining whether a substance is an acid or base; the difference between concentration and strength of acids and bases what determines each
- ☐ Oxides→ understand what an oxide is and how different types are used to make acids & bases

Chemistry Unit Test

Wednesday Oct. 18th, 2017

Part A – Multiple Choice (50)

Part B – Short Answer (50)

- Drawing Atoms
- Drawing Ionic and Covalent Compounds
- Nomenclature
- Balancing
- Types of Reactions
- Acids and Bases

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