**Summer Work Packet Honors Chemistry 412**

**Course Title:** Honors Chemistry 412

**Teacher:** Mr. Urban

**Contact Information:** murban@bwschools.net

## Estimated Time For Completion (Approximate): 2-3 hrs.

**Objectives:** Prepare for the first unit and key concepts of Honors Chemistry.

* Students will read and take notes on Chapters 1 of the textbook, Chemistry: Matter and Change. You should log in to the Ebook using the following information:

Website: https://connected.mcgraw-hill.com/connected/login.do

* Students will make flash cards for memorization of polyatomic ions and metric units. You will see a list of what needs to be on the flash cards in this packet. For elements and ions, put the symbol on one side and the name on the other. Have only one element or ion per card. These will be checked on first day for a grade. You will be tested on them throughout the first semester.

o Use 3x5 index cards, not cut strips of paper, to produce your flash cards.

## Method(s) of Assessment:

* Formal grade for chapters 1 exam (to be given at the end of the first week of school)

## Impact on 1st Quarter Grade:

* Two formal assignments

## Due Date:

* First day of school!

Name: Honors Chemistry Summer Assignment Metric Unit Flashcards

Directions: Write the unit name and quantity on one side and the symbol on the other. Example Flashcard:

|  |  |
| --- | --- |
| Kilo | 1 kilo = 1000 base unit = 103 |

Table of Prefixes

Prefix Abbrev. Meaning

Tera- T 1012

|  |  |  |
| --- | --- | --- |
| Giga- | G | 109 |
| Mega- | M | 106 |
| kilo- | k | 103 |
| hecto- | h | 102 |
| deca- | da | 101 |
| Base Units | - meter, liter, gram, or second |  |

deci- d 10-1

centi- c 10-2

milli- m 10-3

micro- µ 10-6

nano- n 10-9

pico- p 10-12

Name: Honors Chemistry Summer Assignment Polyatomic Ion Flashcards

Directions: Write the polyatomic ion symbol on one side and the name on the other. Example Flashcard:

|  |  |
| --- | --- |
| Cyanide | CN1- |

|  |  |  |  |
| --- | --- | --- | --- |
| **1- Charge** | **2- Charge** | **3- Charge** | **1+ Charge** |
| Formula | Name | Formula | Name | Formula | Name | Formula | Name |
|  |  |  |  |  |  |  |  |
| H2PO4 1- | Dihydrogen | HPO4 2- | Hydrogen | PO4 3- | Phosphate | NH4 + | Ammonium |
| phosphate | phosphate |
| C2H3O2 1- | Acetate | C2O4 2- | Oxalate | PO3 3- | Phosphite |  |  |
| BrO 1-3 | Bromate | O 2-2 | Peroxide | AsO 3-4 | Arsenate |  |  |
|  |  |
| HSO3 1- | Hydrogen | SO3 2- | Sulfite |  |  |  |  |
| sulfite |
| HSO4 1- | Hydrogen | SO4 2- | Sulfate |  |  |  |  |
| sulfate |
| HCO3 1- | Hydrogen | CO3 2- | Carbonate |  |  |  |  |
| carbonate |
| NO2 1- | Nitrite | CrO4 2- | Chromate |  |  |  |  |
| NO3 1- | Nitrate | Cr2O7 2- | Dichromate |  |  |  |  |
| CN 1- | Cyanide | SiO3 2- | Silicate |  |  |  |  |
| OH 1- | Hydroxide |  |  |  |  |  |  |
| MnO4 1- | Permanganate |  |  |  |  |  |  |
| ClO 1- | Hypochlorite |  |  |  |  |  |  |
| ClO2 1- | Chlorite |  |  |  |  |  |  |
| ClO3 1- | Chlorate |  |  |  |  |  |  |
| ClO4 1- | Perchlorate |  |  |  |  |  |  |