

## **IB Chemistry Summer Assignment**

- 1) The Periodic Table will be used every day in class. It is vital that you are familiar with the names, symbols, and locations of the more commonly used elements in class. Please **memorize the names and symbols of the first 36 elements**. A Periodic Table has also been provided for you so you can familiarize yourself with their location. This is the same Periodic Table that will be provided to you in your IB Chemistry SL Data Booklet throughout the year.
- 2) The 8 polyatomic ions included on the table will be used frequently throughout the year. It is an IB Chemistry requirement that students know the names and formulas of these ions in order to properly write chemical equations. **Please memorize all 8 names and formulas** (be careful with subscripts and superscripts).

\*Within the first week of school, there will be a test on this material.\*

### The First 36 Elements of the Periodic Table

Element Number	Element Symbol	Element Name
1	H	Hydrogen
2	He	Helium
3	Li	Lithium
4	Be	Beryllium
5	B	Boron
6	C	Carbon
7	N	Nitrogen
8	O	Oxygen
9	F	Fluorine
10	Ne	Neon
11	Na	Sodium
12	Mg	Magnesium
13	Al	Aluminum
14	Si	Silicon
15	P	Phosphorus
16	S	Sulfur
17	Cl	Chlorine
18	Ar	Argon
19	K	Potassium
20	Ca	Calcium
21	Sc	Scandium
22	Ti	Titanium
23	V	Vanadium
24	Cr	Chromium
25	Mn	Manganese
26	Fe	Iron
27	Co	Cobalt
28	Ni	Nickel
29	Cu	Copper
30	Zn	Zinc
31	Ga	Gallium
32	Ge	Germanium
33	As	Arsenic
34	Se	Selenium
35	Br	Bromine
36	Kr	Krypton

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**Polyatomic Ions to know:**

Formula	Name
$\text{NH}_4^+$	Ammonium
$\text{OH}^-$	Hydroxide
$\text{H}_3\text{O}^+$	Hydronium
$\text{NO}_3^-$	Nitrate
$\text{HCO}_3^-$	Hydrogen carbonate
$\text{CO}_3^{2-}$	Carbonate
$\text{SO}_4^{2-}$	Sulfate
$\text{PO}_4^{3-}$	Phosphate

All atoms are electrically neutral. This is because their number of protons (+) is equal to the number of electrons (-). Ions are simply atoms that are *not* neutral as a result of electrons being lost or gained, and therefore, have a net charge. Some ions are made up of more than one atom which together have experienced a loss or gain of electrons and so carry a charge. These species are called polyatomic ions. The subscripts indicate the number of each element present within the ion. The superscript represents the net charge of the ion.