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	Н	Hydrogen						
2	He	Helium						
3	Li	Lithium						
4	Be	Beryllium						
5	В	Boron						
6	С	Carbon						
7	N	Nitrogen						
8	О	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	Со	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						

6. The periodic table

18	2 He 4.00	10	Ne 20.18	18	Ar	39.95	36	Ā	83.90	54	Xe	131.29	98	R	(222)	118	Uno	(294)
17		6	F 19.00	17	ฮ	35.45	35	Br	79.90	53	-	126.90	85	At	(210)	117	Ons	(564)
16		8	16.00	16	S	32.07	34	Se	78.96	25	Te	127.60	84	Po	(506)	116	Unh	(293)
15		7	N 14.01	15	Ь	30.97	33	As	74.92	51	Sp	121.76	83	Bi	208.98	115	Uup	(288)
14		9	C 12.01	14	Si	28.09	32	g	72.63	50	Sn	118.71	82	Pb	207.20	114	Uuq	(586)
13		ا ب	B 10.81	13	¥	26.98	31	Ga	69.72	49	딥	114.82	81	F	204.38	113	Unt	(586)
12		-					30	Zu	65.38	48	ਲੁ	112.41	80	Hg	200.59	112	C	(285)
11							56	ű	63.55	47	Ag	107.87	79	Au	196.97	111	Rg	(281)
10							28	ïZ	58.69	46	Pd	106.42	78	¥	195.08	110	Ds	(281)
6						SERVING COMPANY	27	ය	58.93	45	Æ	102.91	77	'n	192.22	109	Mt	(278)
8	number	3	atomic SS				26	Fe	55.85	44	Ru	101.07	9/	os	190.23	108	Hs	(569)
7	Atomic number Flement		Relative atomic mass			STATE OF SURVEYORS	25	Mn	54.94	43	Тc	(86)	75	Re	186.21	107	Bh	(270)
9						POST NEW DESIGNATION	24	ප්	52.00	42	Mo	92.96	74	>	183.84	106	Sg	(569)
Ŋ							23	>	50.94	41	NP	92.91	73	Ta	180.95	105	Dp	(268)
4							22	ï	47.87	40	Zr	91.22	72	HŁ	178.49	104	R	(267)
က	12						21	Sc	44.96	39	Y	88.91	57 †	La	138.91	‡ 68	Ac	(227)
2		4	Be 9.01	12	Mg	24.31	20	ය	40.08	38	Ş	87.62	56	Ba	137.33	88	Ra	(525)
1	1 H 1.01	8	Li 6.94	11	Na	22.99	19	×	39.10	37	SP.	85.47	55	ട	132.91	87	F	(223)
	\leftarrow		7	512,00	m	PARSE.		4			S			9			7	

o la de	58	59	09	61	62	63	64	65	99	29	89	69	70	71	
	ප	Ч	PN	Pm	Sm	Eu	рg	Tb	Dy	Н	ם	Tm	Yb	Ľ	
	140.12	140.91	144.24	(145)	150.36	151.96	157.25	158.93	162.50	164.93	167.26	168.93	173.05	174.97	description
	90	91	92	93	94	95	96	46	86	66	100	101	102	103	
	Th	Pa	n	N	Pu	Am	CH	Bk	చ	Es	Fm	Md	No	Ļ	
	232.04	231.04	238.03	(237)	(244)	(243)	(247)	(247)	(251)	(252)	(257)	(258)	(528)	(262)	

Polyatomic Ions to know:

Formula	Name						
$\mathrm{NH_4}^+$	Ammonium						
OH ⁻	Hydroxide						
H_3O^+	Hydronium						
NO_3^-	Nitrate						
HCO ₃	Hydrogen carbonate						
CO_3^{2-}	Carbonate						
SO_4^{2-}	Sulfate						
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 of 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.