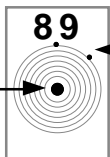


Simple Periodic Table of the Elements

1 hydrogen																	2 helium				
3 lithium	4 beryllium															5 boron	6 carbon	7 nitrogen	8 oxygen	9 flourine	10 neon
11 sodium	12 magnesium															13 aluminum	14 silicon	15 phosphorus	16 sulpher	17 chlorine	18 argon
19 potassium	20 calcium	21	22 titanium	23	24 chromium	25	26 iron	27	28 nickel	29 copper	30	31	32	33 arsenic	34	35	36				
37	38	39	40	41	42	43	44	45	46	47 silver	48	49	50 tin	51	52	53 iodine	54				
55	56	57 – 70	71	72	73	74 tungsten	75	76	77	78 platinum	79 gold	80 mercury	81	82 lead	83	84	85	86			
87	88	89 – 102	103	104	105	106	107	108	109	110	111	112	113	114	115	116	117	118			

Atomic Number
= number of protons
in the nucleus



electrons in the outer shell

The number of negative electrons usually equals the number of positive protons. As the inner shells fill up with electrons, more electrons orbit the nucleus in shells further from the nucleus. The number of electrons in the outer shell determines how the element combines chemically with other elements.

Throughout the universe, there are 92 kinds of atoms, or elements. In addition there are several man-made heavy elements. Each different element has a unique number of protons.

Atoms want to have **8** electrons in the outer shell. They bond, or combine, to make molecules with a total of **8** electrons in the outer shell

Joel Harrison 2010

57	58	59	60	61	62	63	64	65	66	67	68	69	70
89	90	91	92 uranium	93	94	95	96	97	98	99	100	101	102

The elements in this column, or group, have **8** electrons in their outer shell. These atoms do not bond, so they never make liquids or solids.