

NAVY

YOU AND THE NAVY. FULL SPEED AHEAD.

Periodic Table of the Elements

s ORBITALS FILLING
LIGHT METALS

In the periodic table the elements are arranged in order of increasing atomic number. Vertical columns headed by Arabic numerals are called *Groups*. A horizontal sequence of elements is called a *Period*. The most active elements are at the bottom left of Group 1 and the top right of Group 17. The staggered line (Groups 13-17) roughly separates metallic from non-metallic elements.

Groups—Elements within a Group have similar properties and contain the same number of electrons in their outside energy shell.

—The first Group (1) contains

hydrogen and the *alkali metals*.

—The last (18) contains the *noble gases*.

—Group (17) contains the *halogens*.

—The elements intervening

between Groups 2 and 13 are called *transition elements*.

—Short vertical columns without

Arabic numerical headings are called *Subgroups*.

Periods—In a given Period the properties of the elements gradually pass from a metallic to a non-metallic nature, with the last number of a period being a noble gas.

p ORBITALS FILLING
NON-METALS

d ORBITALS FILLING

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Hydrogen 1.0079 H 1	Lithium 6.941 Li 3	Beryllium 9.012 Be 4																	Neon 20.180 Ne 10	Argon 39.948 Ar 18	Krypton 83.80 Kr 36	Xenon 131.29 Xe 54	Radon (222) Rn 86	Ununocium							
			Carbon 12.011 C 6	Nitrogen 14.007 N 7	Oxygen 15.999 O 8	Fluorine 18.998 F 9																	Chlorine 35.453 Cl 17	Bromine 79.904 Br 35	Iodine 126.90 I 53	Astatine (210) At 85	Ununseptium				
Boron 10.811 B 5	Aluminum 26.982 Al 13	Silicon 28.086 Si 14	Phosphorus 30.974 P 15	Sulfur 32.066 S 16																	Selenium 78.96 Se 34	Tellurium 127.60 Te 52	Polonium (209) Po 84	Ununhexium							
Gallium 69.723 Ga 31	Indium 114.82 In 49	Tin 118.71 Sn 50	Antimony 121.75 Sb 51																	Germanium 72.61 Ge 32	Thallium 118.71 Tl 51	Lead 207.2 Pb 82	Ununquadium								
Copper 63.546 Cu 29	Silver 107.87 Ag 47	Gold 196.97 Au 79																	Nickel 58.69 Ni 28	Palladium 106.42 Pd 46	Platinum 195.08 Pt 78	Ununseptium (272)									
Iron 55.847 Fe 26	Ruthenium 101.07 Ru 44	Rhodium 102.91 Rh 45	Rhodium 102.91 Rh 45	Cobalt 58.933 Co 27	Nickel 58.69 Ni 28	Copper 63.546 Cu 29	Zinc 65.39 Zn 30	Cadmium 112.41 Cd 48	Mercury 200.59 Hg 80																	Ununseptium (266)	Ununseptium (267)	Ununseptium (268)	Ununseptium (269)		
Manganese 54.938 Mn 25	Chromium 51.996 Cr 24	Vanadium 50.942 V 23	Titanium 47.88 Ti 22	Scandium 44.956 Sc 21																	Ununseptium (266)	Ununseptium (267)	Ununseptium (268)	Ununseptium (269)							
Strontium 87.62 Sr 38	Barium 137.33 Ba 56	Radium (226) Ra 88	Actinium (227) Ac 89	Ununquadium (262)	Ununquadium (263)	Ununquadium (264)	Ununquadium (265)	Ununquadium (266)	Ununquadium (267)	Ununquadium (268)	Ununquadium (269)	Ununquadium (270)	Ununquadium (271)	Ununquadium (272)	Ununquadium (273)	Ununquadium (274)	Ununquadium (275)														
Cesium 132.90 Cs 55	Francium (223) Fr 87	Ununseptium (262)	Ununseptium (263)	Ununseptium (264)	Ununseptium (265)	Ununseptium (266)	Ununseptium (267)	Ununseptium (268)	Ununseptium (269)	Ununseptium (270)	Ununseptium (271)	Ununseptium (272)	Ununseptium (273)	Ununseptium (274)	Ununseptium (275)	Ununseptium (276)	Ununseptium (277)														
Protactinium 231.04 Pa 91	Uranium 238.03 U 92	Np (237.05) 93	Pm (145) 61	Sm 150.36 62	Eu 151.96 63	Gd 157.25 64	Tb 158.92 65	Dy 162.50 66	Ho 164.93 67	Er 167.26 68	Tm 168.93 69	Yb 173.04 70	Lu 174.97 71																		
Thorium 232.04 Th 90	Protactinium 231.04 Pa 91	Uranium 238.03 U 92	Np (237.05) 93	Pm (145) 61	Sm 150.36 62	Eu 151.96 63	Gd 157.25 64	Tb 158.92 65	Dy 162.50 66	Ho 164.93 67	Er 167.26 68	Tm 168.93 69	Yb 173.04 70	Lu 174.97 71																	
Actinide Series																Lanthanide Series															

p ORBITALS FILLING NON-METALS

d ORBITALS FILLING

Key

Information	Color
Name of Element	Red
Atomic Weight	Yellow
Atomic Symbol	Black
Atomic Number	Green

Key

Information

Color

Name of Element

Atomic Weight

Atomic Symbol

Atomic Number

Red

Yellow

Black

Green

Chemistry

f ORBITALS FILLING

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