

Metals, Nonmetals, Metalloids

Picture Vocabulary

Matter and Energy

Periodic Table of Elements

Periodic Table of Elements

1A 1 H 1.008	2A 3 Li 6.941											3A 5 B 10.811	4A 6 C 12.010	5A 7 N 14.006	6A 8 O 15.999	7A 9 F 18.998	8A 10 Ne 20.179
11 Na 22.989	12 Mg 24.305											13 Al 26.981	14 Si 28.085	15 P 30.974	16 S 32.065	17 Cl 35.453	18 Ar 39.948
19 K 39.098	20 Ca 40.078	21 Sc 44.955	22 Ti 47.867	23 V 50.941	24 Cr 51.996	25 Mn 54.938	26 Fe 55.845	27 Co 58.933	28 Ni 58.693	29 Cu 63.546	30 Zn 65.409	31 Ga 69.723	32 Ge 72.64	33 As 74.921	34 Se 78.96	35 Br 79.904	36 Kr 83.798
37 Rb 85.467	38 Sr 87.62	39 Y 88.905	40 Zr 91.224	41 Nb 92.906	42 Mo 95.94	43 Tc 101.07	44 Ru 101.07	45 Rh 102.905	46 Pd 106.42	47 Ag 107.868	48 Cd 112.411	49 In 114.818	50 Sn 118.710	51 Sb 121.760	52 Te 127.60	53 I 126.904	54 Xe 131.293
55 Cs 132.905	56 Ba 137.327	57-71 Hf 178.49	72 Ta 180.947	73 W 183.84	74 Re 186.207	75 Os 190.23	76 Ir 192.217	77 Pt 195.078	78 Au 196.966	79 Hg 200.59	80 Tl 204.383	81 Pb 207.2	82 Bi 208.980	83 Po 209	84 At 210	85 Rn 222	86 Fr 223
87 Fr 223	88 Ra 226	89-103 Rf 261	104 Db 262	105 Sg 266	106 Bh 264	107 Hs 277	108 Mt 268	109 Ds 271	110 Rg 272	111 Cn 285	112 Uut 285	113 Uuq 285	114 Uup 285	115 Uuh 285	116 Uus 285	117 Uuo	118 Uuo

Lanthanide series	57 La 138.905	58 Ce 140.116	59 Pr 140.907	60 Nd 144.24	61 Pm 145	62 Sm 150.36	63 Eu 151.964	64 Gd 157.25	65 Tb 158.925	66 Dy 162.500	67 Ho 164.930	68 Er 167.259	69 Tm 168.934	70 Yb 173.04	71 Lu 174.967
Actinide series	89 Ac 227	90 Th 232.038	91 Pa 231.035	92 U 238.028	93 Np 237	94 Pu 244	95 Am 243	96 Cm 247	97 Bk 247	98 Cf 251	99 Es 252	100 Fm 257	101 Md 258	102 No 259	103 Lr 262

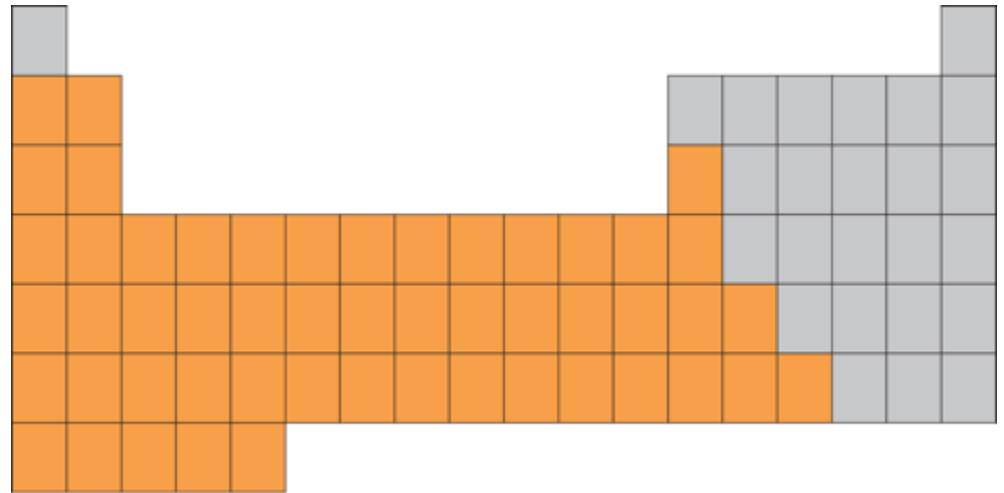
A table in which all the known elements are arranged by properties and are represented by one- or two-letter chemical symbols.

Physical Property



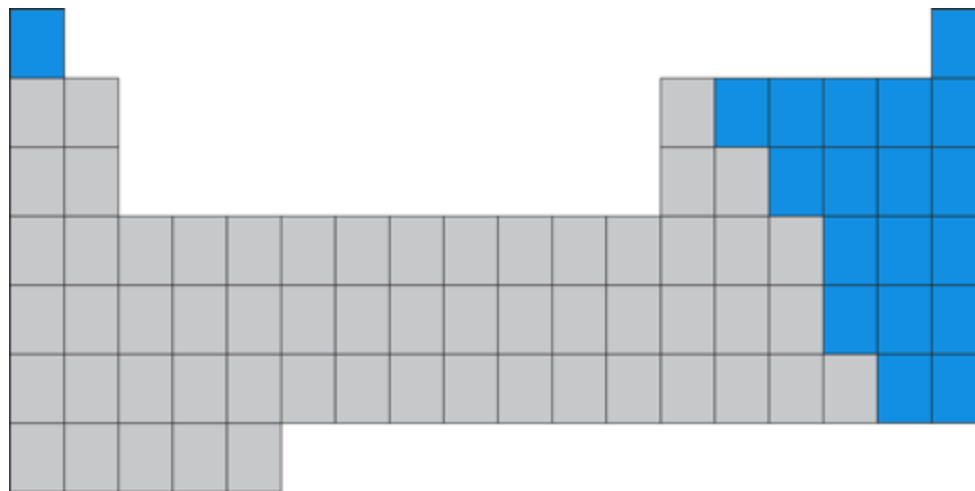
A characteristic that can be observed or measured without changing the substance; for example, color, melting point, and conductivity.

Metals



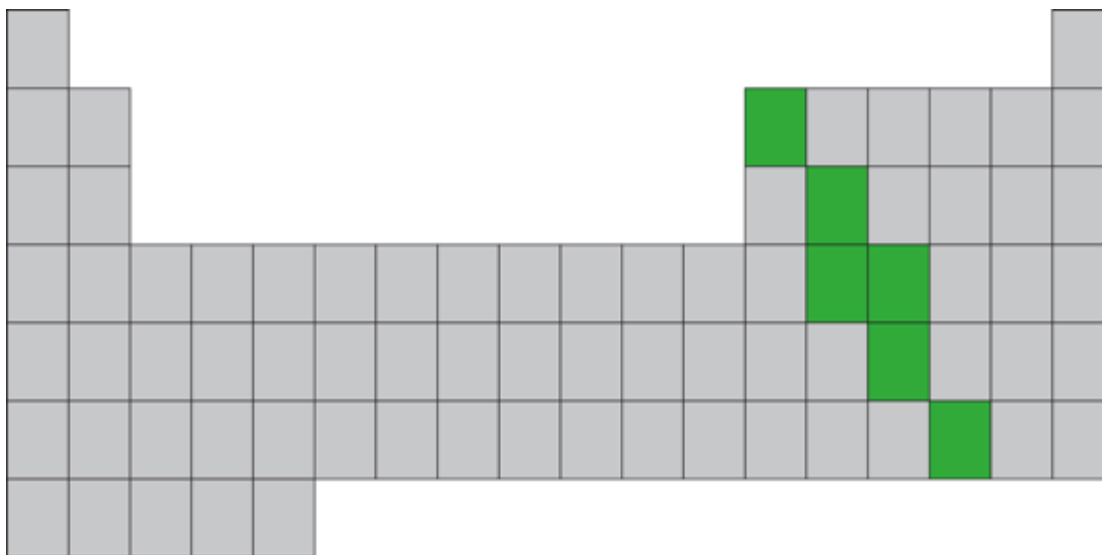
Most elements are metals; they are typically solid, shiny, malleable, and good conductors of heat and electricity.

Nonmetals



Elements that are typically not shiny, not malleable, and poor conductors of heat and electricity; usually gases or brittle solids.

Metalloids



Elements that have properties of both metals and nonmetals; sometimes referred to as semiconductors.

Luster

Metallic

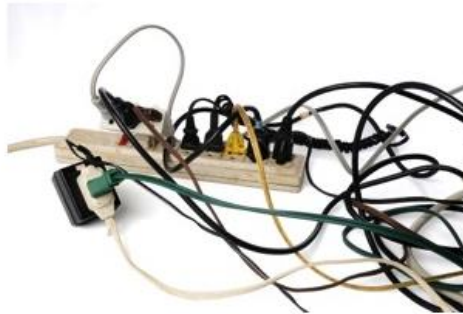


Nonmetallic



A physical property; the way the surface of a substance shines or reflects light; most general classification is between metallic (shiny) and nonmetallic (dull or glassy).

Conductivity



A physical property; the ability or power to easily transfer heat, electricity, or sound.

Malleability



A physical property; able to be shaped or formed into thin sheets by hammering or pressure.

Brittle



A physical property; tendency to break, snap, or crack without first bending or changing shape as a result of application of little force; an example is glass, which shatters easily.

Insulator



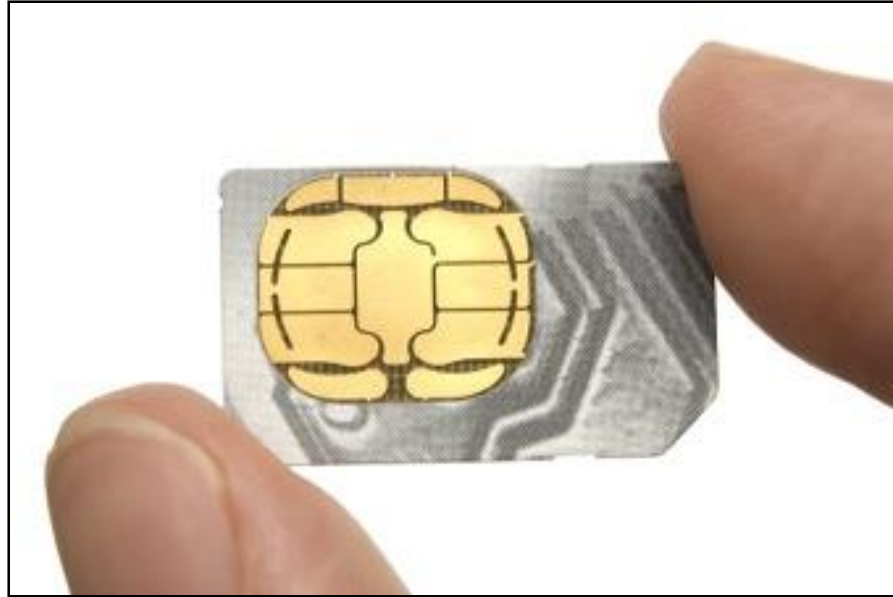
A substance that resists electric current, or a material that resists the flow of heat.

Conductor



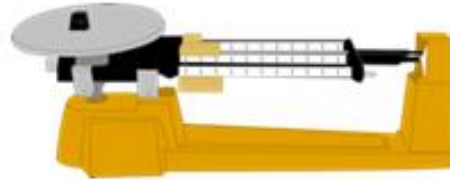
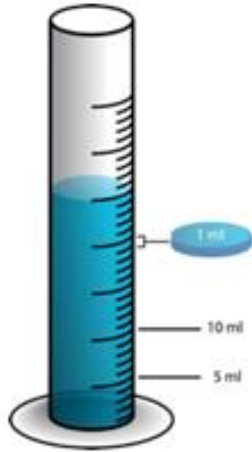
A substance that allows the flow of electric charge or transfers thermal energy through matter.

Semiconductor



A substance that displays the property of electrical conductivity between that of a conductor and that of an insulator; the foundation of modern electronics.

Matter



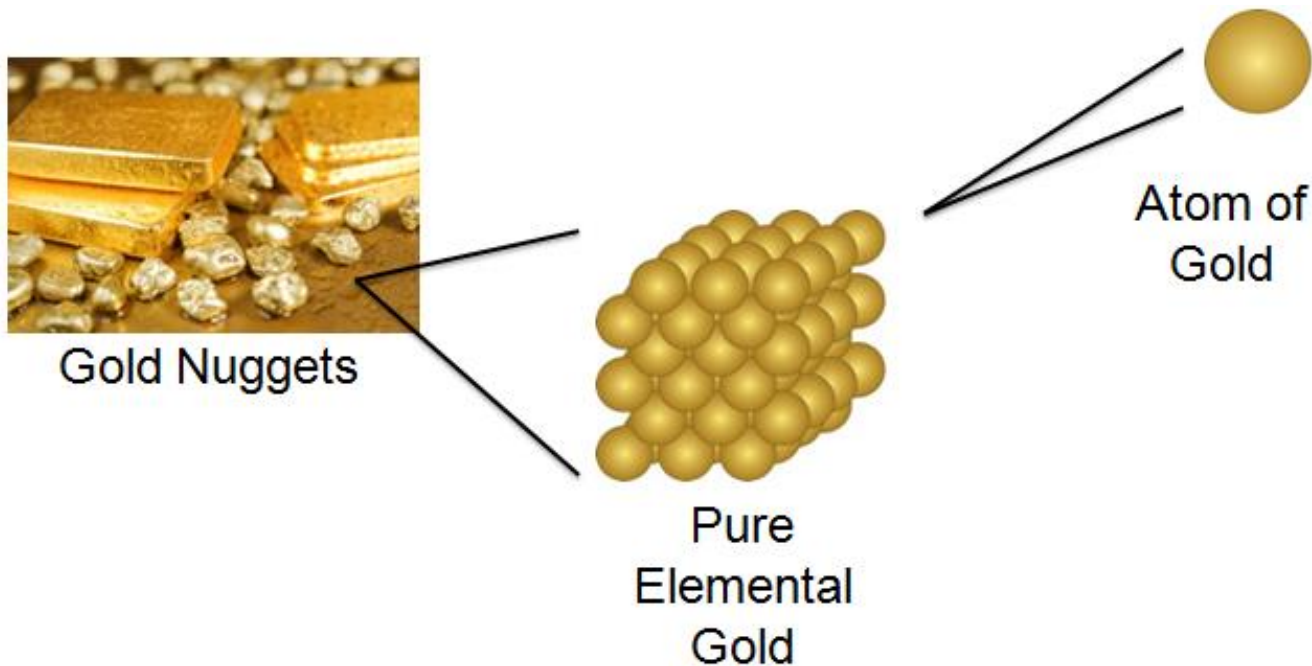
Matter is anything that has volume and mass.
Matter occurs as elements, compounds,
and mixtures.

Classify/Classification



Sort or group together based on shared characteristics, physical properties, or chemical properties.

Element



A pure substance composed of the same type of atom throughout.