

118 elements and their symbols

Symbol, atomic number, atomic mass and type. [] = mass number of the most stable isotope. Science with Shobha · sciencewithshobha.com · WhatsApp +91 72720 00205

No.	Element	Symbol	Mass	Type
1	Hydrogen	H	1.008	Non-metal
2	Helium	He	4.003	Noble gas
3	Lithium	Li	6.94	Alkali metal
4	Beryllium	Be	9.012	Alkaline earth
5	Boron	B	10.81	Metalloid
6	Carbon	C	12.011	Non-metal
7	Nitrogen	N	14.007	Non-metal
8	Oxygen	O	15.999	Non-metal
9	Fluorine	F	18.998	Halogen
10	Neon	Ne	20.180	Noble gas
11	Sodium	Na	22.990	Alkali metal
12	Magnesium	Mg	24.305	Alkaline earth
13	Aluminium	Al	26.982	Post-transition
14	Silicon	Si	28.085	Metalloid
15	Phosphorus	P	30.974	Non-metal
16	Sulfur	S	32.06	Non-metal
17	Chlorine	Cl	35.45	Halogen
18	Argon	Ar	39.95	Noble gas
19	Potassium	K	39.098	Alkali metal
20	Calcium	Ca	40.078	Alkaline earth
21	Scandium	Sc	44.956	Transition metal
22	Titanium	Ti	47.867	Transition metal
23	Vanadium	V	50.942	Transition metal
24	Chromium	Cr	51.996	Transition metal
25	Manganese	Mn	54.938	Transition metal
26	Iron	Fe	55.845	Transition metal
27	Cobalt	Co	58.933	Transition metal
28	Nickel	Ni	58.693	Transition metal
29	Copper	Cu	63.546	Transition metal
30	Zinc	Zn	65.38	Transition metal
31	Gallium	Ga	69.723	Post-transition
32	Germanium	Ge	72.63	Metalloid
33	Arsenic	As	74.922	Metalloid
34	Selenium	Se	78.971	Non-metal
35	Bromine	Br	79.904	Halogen
36	Krypton	Kr	83.798	Noble gas
37	Rubidium	Rb	85.468	Alkali metal
38	Strontium	Sr	87.62	Alkaline earth
39	Yttrium	Y	88.906	Transition metal
40	Zirconium	Zr	91.224	Transition metal
41	Niobium	Nb	92.906	Transition metal
42	Molybdenum	Mo	95.95	Transition metal
43	Technetium	Tc	[98]	Transition metal
44	Ruthenium	Ru	101.07	Transition metal
45	Rhodium	Rh	102.91	Transition metal
46	Palladium	Pd	106.42	Transition metal
47	Silver	Ag	107.87	Transition metal
48	Cadmium	Cd	112.41	Transition metal
49	Indium	In	114.82	Post-transition
50	Tin	Sn	118.71	Post-transition
51	Antimony	Sb	121.76	Metalloid
52	Tellurium	Te	127.60	Metalloid
53	Iodine	I	126.90	Halogen
54	Xenon	Xe	131.29	Noble gas
55	Caesium	Cs	132.91	Alkali metal
56	Barium	Ba	137.33	Alkaline earth
57	Lanthanum	La	138.91	Lanthanide
58	Cerium	Ce	140.12	Lanthanide
59	Praseodymium	Pr	140.91	Lanthanide

No.	Element	Symbol	Mass	Type
60	Neodymium	Nd	144.24	Lanthanide
61	Promethium	Pm	[145]	Lanthanide
62	Samarium	Sm	150.36	Lanthanide
63	Europium	Eu	151.96	Lanthanide
64	Gadolinium	Gd	157.25	Lanthanide
65	Terbium	Tb	158.93	Lanthanide
66	Dysprosium	Dy	162.50	Lanthanide
67	Holmium	Ho	164.93	Lanthanide
68	Erbium	Er	167.26	Lanthanide
69	Thulium	Tm	168.93	Lanthanide
70	Ytterbium	Yb	173.05	Lanthanide
71	Lutetium	Lu	174.97	Lanthanide
72	Hafnium	Hf	178.49	Transition metal
73	Tantalum	Ta	180.95	Transition metal
74	Tungsten	W	183.84	Transition metal
75	Rhenium	Re	186.21	Transition metal
76	Osmium	Os	190.23	Transition metal
77	Iridium	Ir	192.22	Transition metal
78	Platinum	Pt	195.08	Transition metal
79	Gold	Au	196.97	Transition metal
80	Mercury	Hg	200.59	Transition metal
81	Thallium	Tl	204.38	Post-transition
82	Lead	Pb	207.2	Post-transition
83	Bismuth	Bi	208.98	Post-transition
84	Polonium	Po	[209]	Post-transition
85	Astatine	At	[210]	Halogen
86	Radon	Rn	[222]	Noble gas
87	Francium	Fr	[223]	Alkali metal
88	Radium	Ra	[226]	Alkaline earth
89	Actinium	Ac	[227]	Actinide
90	Thorium	Th	232.04	Actinide
91	Protactinium	Pa	231.04	Actinide
92	Uranium	U	238.03	Actinide
93	Neptunium	Np	[237]	Actinide
94	Plutonium	Pu	[244]	Actinide
95	Americium	Am	[243]	Actinide
96	Curium	Cm	[247]	Actinide
97	Berkelium	Bk	[247]	Actinide
98	Californium	Cf	[251]	Actinide
99	Einsteinium	Es	[252]	Actinide
100	Fermium	Fm	[257]	Actinide
101	Mendelevium	Md	[258]	Actinide
102	Nobelium	No	[259]	Actinide
103	Lawrencium	Lr	[266]	Actinide
104	Rutherfordium	Rf	[267]	Transition metal
105	Dubnium	Db	[268]	Transition metal
106	Seaborgium	Sg	[269]	Transition metal
107	Bohrium	Bh	[270]	Transition metal
108	Hassium	Hs	[269]	Transition metal
109	Meitnerium	Mt	[278]	Transition metal
110	Darmstadtium	Ds	[281]	Transition metal
111	Roentgenium	Rg	[282]	Transition metal
112	Copernicium	Cn	[285]	Transition metal
113	Nihonium	Nh	[286]	Post-transition
114	Flerovium	Fl	[289]	Post-transition
115	Moscovium	Mc	[290]	Post-transition
116	Livermorium	Lv	[293]	Post-transition
117	Tennessine	Ts	[294]	Halogen
118	Oganesson	Og	[294]	Noble gas

The 11 symbols that come from Latin names

Sodium	Na	natrium
Potassium	K	kalium
Iron	Fe	ferrum
Copper	Cu	cuprum
Silver	Ag	argentum
Tin	Sn	stannum
Antimony	Sb	stibium
Tungsten	W	wolfram
Gold	Au	aurum
Mercury	Hg	hydrargyrum
Lead	Pb	plumbum

Common valency of the elements a school course uses

Hydrogen	H	1
Helium	He	0
Lithium	Li	1
Beryllium	Be	2
Boron	B	3
Carbon	C	4
Nitrogen	N	3
Oxygen	O	2
Fluorine	F	1
Neon	Ne	0
Sodium	Na	1
Magnesium	Mg	2
Aluminium	Al	3
Silicon	Si	4
Phosphorus	P	3, 5
Sulfur	S	2, 4, 6
Chlorine	Cl	1
Argon	Ar	0
Potassium	K	1
Calcium	Ca	2
Chromium	Cr	3, 6
Manganese	Mn	2, 4, 7
Iron	Fe	2, 3
Nickel	Ni	2
Copper	Cu	1, 2
Zinc	Zn	2
Bromine	Br	1
Silver	Ag	1
Tin	Sn	2, 4
Iodine	I	1
Barium	Ba	2
Gold	Au	1, 3

Mercury Hg 1, 2

Lead Pb 2, 4

Symbol rules: one letter is always a capital (H, C, N, O); in two-letter symbols the second is always small (Co is cobalt, CO is carbon monoxide). Learn 1 to 20 first, then the metals and halogens your course uses. Full notes and the mnemonics: sciencewithshobha.com/blog/