

Atomic Elements

An **element** is the most basic form of an atom based on the number of protons (p^+)

The number of p^+ is also known as the **atomic number** of an atom

The **atomic number** is the number of protons (p^+) and electrons (e^-) in atom

The **element** is identified by **element symbol** (H), and **element name** (Hydrogen) as shown in the element

1	← group # (modern)
1A	← group # (traditional)
1	← Element # (Atomic #)
H	← Element Symbol
Hydrogen	← Element Name
1.01	← Average Atomic Mass
1	← period # (modern)

A **periodic square** from a table of elements (*Periodic Table*) showing all the element info

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Element Arrangement on Periodic Table

Groups are the up and down rows with elements based on the **number of valence electrons** (val. e^-), and are numbered 1 – 18, or 1A – 8A and 1B – 10B

Periods are the left to right rows based on the number of **energy levels**, or the size of the atom, and are numbered 1 – 7.

1	1A
1	H Hydrogen 1.01
2	2A
3	Li Lithium 6.94
4	Be Beryllium 9.01
11	Na Sodium 22.99
12	Mg Magnesium 24.31
19	K Potassium 39.10
20	Ca Calcium 40.08
37	Rb Rubidium 85.47
38	Sr Strontium 87.62
55	Cs Cesium 132.91
56	Ba Barium 137.33
87	Fr Francium (223)
88	Ra Radium (226)

group

13	14	15	16	17	18
3A	4A	5A	6A	7A	8A
5	6	7	8	9	10
B Boron 10.81	C Carbon 12.01	N Nitrogen 14.01	O Oxygen 16.00	F Fluorine 19.00	Ne Neon 20.18

period

Groups: up and down
(18 groups*, 1-18)

* Traditional: 1A-8A, 1B-10B

Periods: left to right
(7 periods, 1-7)

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