

The Periodic Table of the Elements, in Pictures

Alkali Metals Group 1

H Hydrogen
Sun and Stars

Li Lithium
Batteries

Na Sodium
Salt

K Potassium
Fruits and Vegetables

Rb Rubidium
Global Navigation

Cs Cesium
Atomic Clocks

Fr Francium
Laser Atom Traps

Alkali Earth Metals Group 2

Be Beryllium
Emeralds

Mg Magnesium
Chlorophyll

Ca Calcium
Shells and Bones

Sr Strontium
Fireworks

Ba Barium
X-Ray Diagnosis

Ra Radium
Luminous Watches

Color Key

Solid: Solid
Liquid: Liquid
Gas: Gas at room temperature

Human Body: ★ top ten elements by weight
Earth's Crust: ★ top eight elements by weight
Magnetic: ★ ferromagnetic at room temperature
Noble Metals: ★ corrosion resistant
Radioactive: ★ all isotopes are radioactive
Only Traces Found in Nature: ★ less than a millionth percent of earth's crust
Never Found in Nature: ★ only made by people

Examples: ★ metallic solid ★ red liquid ★ colorless gas

Atoms

Molecules

Noble Gases Group 18

He Helium
Balloons

Ne Neon
Advertising Signs

Ar Argon
Light Bulbs

Kr Krypton
Flashlights

Xe Xenon
High-Intensity Lamps

Rn Radon
Surgical Implants

Transition Metals

3	4	5	6	7	8	9	10	11	12
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Groups

The vertical columns are called groups. Elements in the same group behave similarly because they have the same number of outer electrons.

Group 1 has one outer electron, group 2 has two, etc. Most transition metals have two.

Rare Earth Metals

La Lanthanum Telescope Lenses	Ce Cerium Lighter Flints	Pr Praseodymium Toothworkers' Eyeglasses	Nd Neodymium Electric Motor Magnets	Pm Promethium Luminous Dials	Sm Samarium Electric Motor Magnets	Eu Europium Color Televisions	Gd Gadolinium MRI Diagnosis	Tb Terbium Fluorescent Lamps	Dy Dysprosium Smart Material Actuators	Ho Holmium Laser Surgery	Er Erbium Optical Fiber Communications	Tm Thulium Laser Surgery	Yb Ytterbium Scientific Fiber Lasers	Lu Lutetium Photodynamic Medicine
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Actinide Metals

Ac Actinium Radioactive Medicine	Th Thorium Gas Lamp Mantles	Pa Protactinium Radioactive Waste	U Uranium Nuclear Power	Np Neptunium Radioactive Waste	Pu Plutonium Nuclear Weapons	Am Americium Smoke Detectors	Cm Curium Mineral Analyzers	Bk Berkelium Radioactive Waste	Cf Californium Mineral Analyzers	Es Einsteinium radioactive, never found in nature, no uses except atomic research	Fm Fermium radioactive, never found in nature, no uses except atomic research	Md Mendelevium radioactive, never found in nature, no uses except atomic research	No Nobelium radioactive, never found in nature, no uses except atomic research	Lr Lawrencium radioactive, never found in nature, no uses except atomic research
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Superheavy Elements

radioactive, never found in nature, no uses except atomic research