

Periodic Table of the Elements

	alkali metals	alkaline metals		1 H Hydrogen	2 He Helium					
1	Lithium	Beryllium	Boron	Carbon	Nitrogen	Oxygen	F Fluorine	Ne Neon		
2	Sodium	Magnesium	Aluminum	Silicon	Phosphorus	Sulfur	Cl Chlorine	Ar Argon		
3	K Potassium	Mg Magnesium	Al Aluminum	Si Silicon	P Phosphorus	S Sulfur	Cl Chlorine	Ar Argon		
4	Rb Rubidium	Ca Calcium	Ga Gallium	Ge Germanium	As Arsenic	Se Selenium	Br Bromine	Kr Krypton		
5	Cs Cesium	Sr Strontium	In Indium	Tin	Sb Antimony	Te Tellurium	I Iodine	Xe Xenon		
6	Tl Thallium	Pb Lead	Bi † Bismuth	Po † Polonium	At † Astatine	Rn † Radon				
7	Fr † Francium	Ra † Radium	Nh †! Nihonium	Fl †! Flerovium	Mc †! Moscovium	Lv †! Livermorium	Ts †! Tennessine	Og †! Oganesson		
	I	II	III	IV	V	VI	VII halogens except H	VIII noble gases		
	The d-Block: Transition Metals									
	Sc Scandium	Ti Titanium	V Vanadium	Cr Chromium	Mn Manganese	Fe Iron	Co Cobalt	Ni Nickel	Cu Copper	Zn Zinc
	Y Yttrium	Zr Zirconium	Nb Niobium	Mo Molybdenum	Tc †! Technetium	Ru Ruthenium	Rh Rhodium	Pd Palladium	Ag Silver	Cd Cadmium
	Lu Lutetium	Hf Hafnium	Ta Tantalum	W Tungsten	Re Rhenium	Os Osmium	Ir Iridium	Pt Platinum	Au Gold	Hg Mercury
	Lr †! Lawrencium	Rf †! Rutherford	Dubnium	Sg †! Seaborgium	Bh †! Bohrium	Hs †! Hassium	Mt †! Meitnerium	Ds †! Darmstadt	Rg †! Roentgenium	Cn †! Copernicium
	IIIB	IVB	VB	VIB	VIIIB	VIIIB	VIIIB	IB	IIB	
	The f-Block: Lanthanides and Actinides									
	La Lanthanum	Ce Cerium	Pr Praseodymium	Nd Neodymium	Pm †! Promethium	Sm Samarium	Eu Europium			
	Ac †! Actinium	Th †! Thorium	Pa †! Protactinium	U †! Uranium	Np †! Neptunium	Pu †! Plutonium	Am †! Americium			
	Gd Gadolinium	Tb Terbium	Dy Dysprosium	Ho Holmium	Er Erbium	Tm Thulium	Yb Ytterbium			
	Cm †! Curium	Bk †! Berkelium	Cf †! Californium	Einsteinium	Fm †! Fermium	Md †! Mendelevium	No †! Nobelium			
	continues below									
	continued from above									

Nuclear Half-Lives

