

	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	
	alkali metals	alkaline earth metals	<b>Periodic Table of the Elements</b>													chalcogens	halogens	noble gases	
1.	<b>1H</b> Hydrogen [ˈhaɪdrədʒɪn] 1.0	groups															<b>2He</b> Helium [ˈhiːliəm] 4.0		
2.	<b>3Li</b> Lithium [ˈlɪθiəm] 6.9	<b>4Be</b> Beryllium [bəˈrɪliəm] 9.0	p e r i o d s	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid black; padding: 2px; margin-right: 10px;"> <b>57La</b> Lanthanum [ˈlænθənəm] 138.9         </div> <div style="text-align: center;"> <b>Atomic Number</b>  <b>Symbol</b>            Name            Phonetic Transcription            Relative Atomic Mass         </div> </div>										<b>5B</b> Boron [ˈbɒrən] 10.8	<b>6C</b> Carbon [ˈkɑːbən] 12.0	<b>7N</b> Nitrogen [ˈnɑːtrədʒɪn] 14.0	<b>8O</b> Oxygen [ˈɒksɪdʒɪn] 16.0	<b>9F</b> Fluorine [ˈfluːrɪn] 19.0	<b>10Ne</b> Neon [ˈniːɒn] 20.2
3.	<b>11Na</b> Sodium [səʊdiəm] 23.0	<b>12Mg</b> Magnesium [mæɡˈniːziəm] 24.3		<div style="display: flex; align-items: center; justify-content: center;"> <span style="font-size: 2em;">←</span> <span style="margin: 0 10px;">transition elements series</span> <span style="font-size: 2em;">→</span> </div>										<b>13Al</b> Aluminium [æljʊˈmɪniəm] 27.0	<b>14Si</b> Silicon [ˈsɪlkən] 28.1	<b>15P</b> Phosphorus [ˈfɒsfərəs] 31.0	<b>16S</b> Sulphur [ˈsʌlfər] 32.1	<b>17Cl</b> Chlorine [ˈklɔːrɪn] 35.5	<b>18Ar</b> Argon [ˈɑːɡən] 39.9
4.	<b>19K</b> Potassium [peˈtæsiəm] 39.1	<b>20Ca</b> Calcium [ˈkælsiəm] 40.1	<b>21Sc</b> Scandium [ˈskændiəm] 45.0	<b>22Ti</b> Titanium [taɪˈteɪniəm] 47.9	<b>23V</b> Vanadium [vəˈneɪdiəm] 50.9	<b>24Cr</b> Chromium [ˈkroumiəm] 52.0	<b>25Mn</b> Manganese [ˈmæŋɡəniːz] 54.9	<b>26Fe</b> Iron [ˈaɪ.ərn] 55.9	<b>27Co</b> Cobalt [ˈkoubɔlt] 58.9	<b>28Ni</b> Nickel [ˈnɪkəl] 58.9	<b>29Cu</b> Copper [ˈkɒpər] 63.5	<b>30Zn</b> Zinc [ˈzɪŋk] 65.4	<b>31Ga</b> Gallium [ˈɡæliəm] 69.7	<b>32Ge</b> Germanium [dʒəˈmeɪniəm] 72.6	<b>33As</b> Arsenic [ˈɑːrsnɪk] 74.9	<b>34Se</b> Selenium [siˈliːniəm] 79.0	<b>35Br</b> Bromine [ˈbroumiːn] 79.9	<b>36Kr</b> Krypton [ˈkrɪptən] 83.8	
5.	<b>37Rb</b> Rubidium [ruˈbɪdiəm] 85.5	<b>38Sr</b> Strontium [ˈstrɒŋjəm] 87.6	<b>39Y</b> Yttrium [ˈɪtriəm] 88.9	<b>40Zr</b> Zirconium [zəˈkɒʊniəm] 91.2	<b>41Nb</b> Niobium [naɪˈoʊbiəm] 92.9	<b>42Mo</b> Molybdenum [məˈlɪbdɪnəm] 95.9	<b>43Tc</b> Technetium [tekˈniːʃiəm] (99)	<b>44Ru</b> Ruthenium [ruːˈθiːniəm] 101.1	<b>45Rh</b> Rhodium [ˈroudiəm] 102.9	<b>46Pd</b> Palladium [pəˈleɪdiəm] 106.4	<b>47Ag</b> Silver [ˈsɪlvər] 107.9	<b>48Cd</b> Cadmium [ˈkædmiəm] 112.4	<b>49In</b> Indium [ˈɪndiəm] 114.8	<b>50Sn</b> Tin [tɪn] 118.7	<b>51Sb</b> Antimony [ˈæntɪməni] 121.8	<b>52Te</b> Tellurium [tɪˈluəriəm] 127.6	<b>53I</b> Iodine [ˈaɪ.ədiːn] 126.9	<b>54Xe</b> Xenon [ˈzenən] 131.3	
6.	<b>55Cs</b> Caesium [ˈsiːziəm] 132.9	<b>56Ba</b> Barium [ˈbeəriəm] 137.3	<b>57La</b> Lanthanum [ˈlænθənəm] 138.9	<b>72Hf</b> Hafnium [ˈhæfniəm] 178.5	<b>73Ta</b> Tantalum [ˈtæntələm] 181.0	<b>74W</b> Tungsten [ˈtʌŋstən] 183.9	<b>75Re</b> Rhenium [ˈriːniəm] 186.2	<b>76Os</b> Osmium [ˈɒzmiəm] 190.2	<b>77Ir</b> Iridium [ˈɪrɪdiəm] 192.2	<b>78Pt</b> Platinum [ˈplætɪnəm] 195.1	<b>79Au</b> Gold [ɡould] 197.0	<b>80Hg</b> Mercury [ˈmɜːrkjʊəri] 200.6	<b>81Tl</b> Thallium [ˈθæliəm] 204.4	<b>82Pb</b> Lead [ˈled] 207.2	<b>83Bi</b> Bismuth [ˈbɪzməθ] 209.0	<b>84Po</b> Polonium [peˈləʊniəm] (210)	<b>85At</b> Astatine [ˈæstətiːn] (210)	<b>86Rn</b> Radon [ˈreɪdɒn] (222)	
7.	<b>87Fr</b> Francium [ˈfrænsiəm] (223)	<b>88Ra</b> Radium [ˈreɪdiəm] (226)	<b>89Ac</b> Actinium [ækˈtɪniːəm] (227)	<b>104Rf</b> Rutherfordium ˌrʌðərˈfɜːrdiəm (261)															

### Lanthanides

<b>58Ce</b> Cerium [ˈsiəriəm] 140.1	<b>59Pr</b> Praseodymium [.prezɪuˈdɪmiəm] 140.9	<b>60Nd</b> Neodymium [niouˈdɪmiəm] 144.2	<b>61Pm</b> Promethium [prəˈmiθiəm] (147)	<b>62Sm</b> Samarium [səˈmæəriəm] 150.4	<b>63Eu</b> Europium [yʊˈrɒpiəm] 152.0	<b>64Gd</b> Gadolinium [.ɡædlˈɪniəm] 157.3	<b>65Tb</b> Terbium [ˈtɜːbiəm] 158.9	<b>66Dy</b> Dysprosium [dɪsˈprɒsiəm] 162.5	<b>67Ho</b> Holmium [ˈhɒlmiəm] 164.9	<b>68Er</b> Erbium [ˈɜːbiəm] 167.3	<b>69Tm</b> Thulium [ˈθuliəm] 168.9	<b>70Yb</b> Ytterbium [ɪˈtɜːbiəm] 173.0	<b>71Lu</b> Lutetium [luˈtiʃiəm] 175.0
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### Actinides

<b>90Th</b> Thorium [ˈθɔːriəm] 232.0	<b>91Pa</b> Protactinium [.proutækˈtɪniəm] (231)	<b>92U</b> Uranium [yʊˈreɪniəm] 238.1	<b>93Np</b> Neptunium [nɛpˈtʊniəm] (237)	<b>94Pu</b> Plutonium [pluˈtɒniəm] (242)	<b>95Am</b> Americium [.æməˈrɪʃiəm] (243)	<b>96Cm</b> Curium [ˈkyʊəriəm] (247)	<b>97Bk</b> Berkelium [bɜːrˈkɪliəm] (245)	<b>98Cf</b> Californium [.kæləˈfɜːniəm] (251)	<b>99Es</b> Einsteinium [aɪnˈstaɪniəm] (254)	<b>100Fm</b> Fermium [ˈfɜːmiəm] (253)	<b>101Md</b> Mendelevium [.mɛndlˈɪviəm] (256)	<b>102No</b> Nobelium [nouˈbɛliəm] (254)	<b>103Lr</b> Lawrencium [lɔːrɛnsiəm] (257)
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