

### Key to Periodic Table Icons

1. Hydrogen — burning dirigible (e.g., Hindenburg)
2. Helium — party balloons
3. Lithium — lithium carbonate pills for manic depressives
4. Beryllium — gyroscope in space (extremely light structural material)
5. Boron — borax
6. Carbon — coal
7. Nitrogen — ammonia
8. Oxygen — hospital oxygen
9. Fluorine — fluoride toothpaste
10. Neon — neon sign
11. Sodium — table salt
12. Magnesium — leaves (chlorophyll)
13. Aluminum — beverage cans
14. Silicon — glass (silicates)
15. Phosphorus — matches (red P in striking surface of safety matches)
16. Sulfur — volcano
17. Chlorine — chlorine bleach
18. Argon — light bulb (inert gas filler)
19. Potassium — banana (common alkali in plants)
20. Calcium — teeth (calcium phosphate)
21. Scandium — added to lamps to give natural sunlight appearance
22. Titanium — paint (titanium oxide)
23. Vanadium — tank (armor plate)
24. Chromium — chrome bumper
25. Manganese — manganese oxide battery filler
26. Iron — train engine
27. Cobalt — magnet (Alnico alloy)
28. Nickel — nickel coin (actually 3:1 Ni:Cu)
29. Copper — penny coin (pre-1983; modern pennies are copper-plated zinc)
30. Zinc — windmill (galvanized steel)
31. Gallium — semiconductor (gallium arsenide)
32. Germanium — rectifier (original transistor material)
33. Arsenic — insecticide
34. Selenium — exposure meter in camera (photoconductive effect)
35. Bromine — fire retardant (baby's clothes)
36. Krypton — krypton bulb
37. Rubidium — found in coffee and tea (mixed in nature with potassium)
38. Strontium — fireworks (red color)
39. Yttrium — phosphors
40. Zirconium — neutron-transparent refractory for uranium reactors
41. Niobium — alloys for aircraft
42. Molybdenum — ingredient in high-strength steels
43. Technetium — radioactive tracer in the body
44. Ruthenium — electrical contacts
45. Rhodium — spark plug contact

46. Palladium — surgical instruments
47. Silver — silver coin
48. Cadmium — plating for screws and nuts
49. Indium — metal-to-glass seal in optics
50. Tin — coating for tin cans
51. Antimony — ingredient in pewter and mascara
52. Tellurium — blasting caps
53. Iodine — seaweed
54. Xenon — inert gas in strobes
55. Cesium — atomic clock
56. Barium — X-rays of digestive tract
57. Lanthanum — catalysis for petroleum refining
58. Cerium — lighter flint (Misch metal)
59. Praseodymium — oxides used to polish optics (along with Ce/La)
60. Neodymium — “didymium” (Nd/Pr) used for glassblowers’ glasses
61. Promethium — found in supernovae (not natural on earth)
62. Samarium — carbon arc high intensity lights
63. Europium — red phosphor in television sets
64. Gadolinium — laser discs
65. Terbium — phosphor in fluorescent lamps (blue)
66. Dysprosium — halogen lamps
67. Holmium — optics (calibration lines)
68. Erbium — pink coloring in ceramics
69. Thulium — radiation badges
70. Ytterbium — earthquake sensors
71. Lutetium — dating isotope in meteorites
72. Hafnium — refractory material
73. Tantalum — electronic capacitor
74. Tungsten — light bulb filament
75. Rhenium — electrical contacts
76. Osmium — pen points
77. Iridium — layer at KT geological boundary (extinction of dinosaurs)
78. Platinum — catalyst in auto emissions catalytic converter
79. Gold — pot of gold
80. Mercury — thermometers
81. Thallium — rodenticide
82. Lead — automobile storage battery
83. Bismuth — fuses
84. Polonium — antistatic brushes for film
85. Astatine — available only in minute amounts
86. Radon — collects in house basements
87. Francium — available only in minute amounts
88. Radium — formerly used as fluorescent paint in watches
89. Actinium — available only in minute amounts
90. Thorium — oxide used as refractory in gas mantles
91. Protactinium — available only in minute amounts

92. Uranium — atomic submarines
93. Neptunium — Neptune
94. Plutonium — atomic explosion
95. Americium — smoke detectors
96. Curium — Marie Curie
97. Berkelium — University graduate
98. Californium — California
99. Einsteinium — Albert Einstein
100. Fermium — Enrico Fermi, discoverer of nuclear chain reaction
101. Mendeleevium — Dimitri Mendeleév
102. Nobelium — Alfred Nobel
103. Lawrencium — Ernest Lawrence, inventor of cyclotron
104. Rutherfordium — Ernest Rutherford, discoverer of atomic nucleus
105. Dubnium — Institute for Nuclear Research in Dubna, Russia, near Moscow (coat-of arms for Dubna)
106. Seaborgium — Glenn Seaborg, pioneer of transuranium elements at UC-Berkeley
107. Bohrium — Niels Bohr, who interpreted the atomic structure of the atom
108. Hassium — state of Hessen, Germany (Darmstadt, Institute for Heavy-Ion Research) (coat of arms for Hessen)
109. Meitnerium — Lise Meitner, codiscoverer of atomic fission
110. Darmstadtium — Darmstadt, Institute for Heavy-Ion Research (coat of arms for Darmstadt)
111. Roentgenium — Wilhelm Röntgen, discoverer of X-rays
112. Copernecium — Nicolaus Copernicus, formulated the heliocentric theory
113. Nihonium — from “Japan” in native language (seal of RIKEN, Rikagaku Kenkyusho, Research Institute near Tokyo)
114. Flerovium — Georgy Nikolayevich Flyorov, Russian physicist, founded the Joint Institute for Nuclear Research in Dubna, Russia
115. Moscovium — Moscow, Russia (coat of arms of Moscow)
116. Livermorium — Lawrence Livermore National Laboratory, nuclear science site in California
117. Tennessine — Oak Ridge, Tennessee, main research site of the Manhattan project (seal of Oak Ridge)
118. Oganesson — Yuri Tsolakovich Oganessian, principle researcher of superheavy elements