Name _____

BASIC CHEMISTRY

Complete this assignment using pages 746 – 747 of the red Earth Science textbook.

Define the following:

Matter –

Energy –

Element –

Atom –

Electron –

Proton –

Neutron –

Isotope –

Atomic Number –

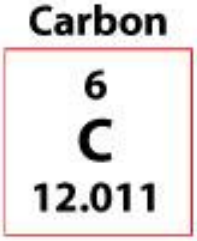
Period –

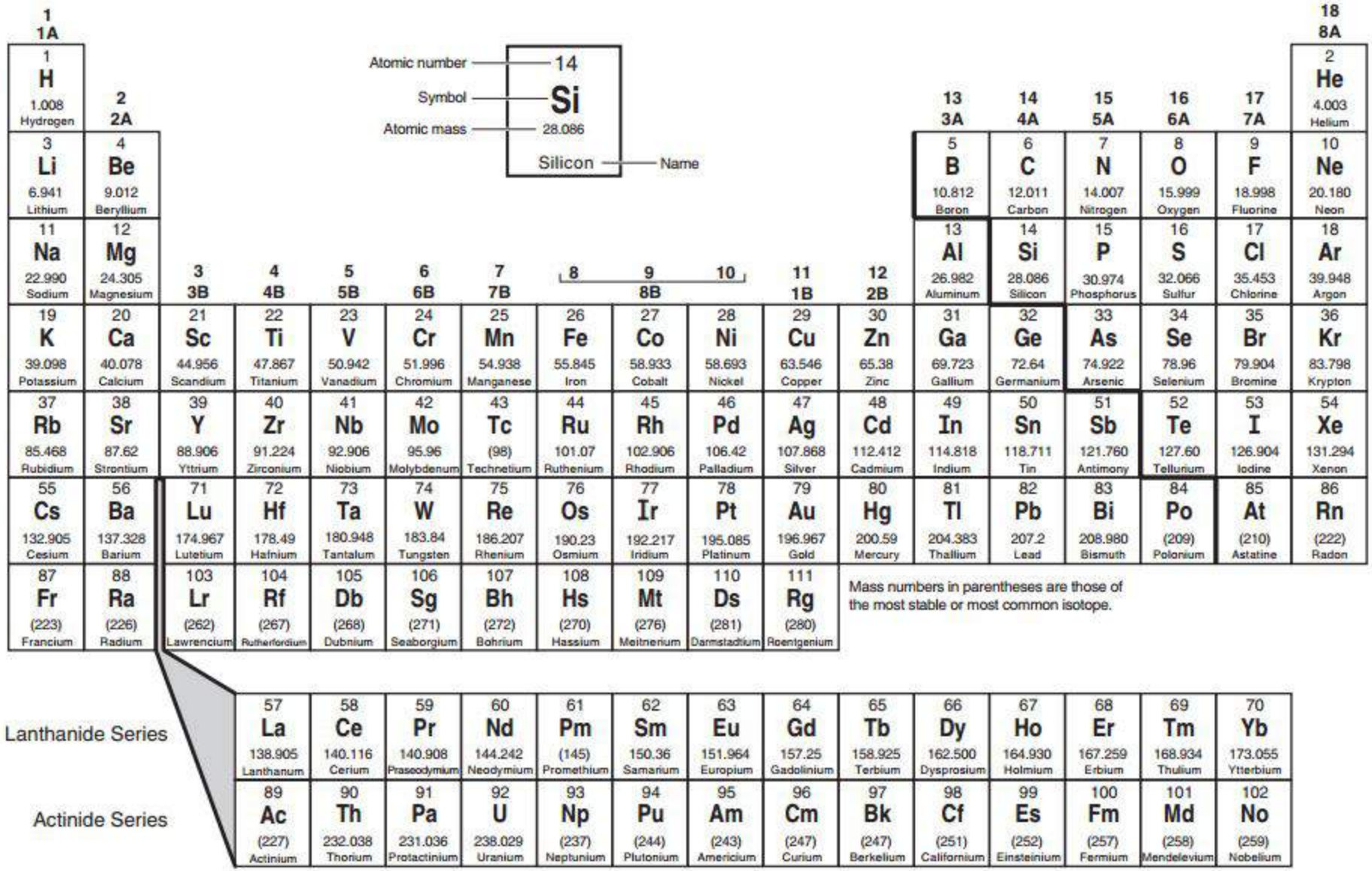
Group –

Draw and label an atom. Label the nucleus, electron, proton, and neutron

Use the following directions to identify the metals, metalloids, and nonmetals in the periodic table of elements on the back of this page.

1. Using a green colored pencil color in the boxes of the following elements with the atomic numbers:
    a. 5, 14, 32, 33, 51, and 52
2. Use the same green colored pencil and label them as "METALLOIDS"
3. Use a yellow colored pencil color in the boxes of the following elements with the atomic numbers
    a. 1, 2, 6, 7, 8, 9, 10, 15, 16, 17, 18, 34, 35, 36, 53, 54, 85, and 86
4. Use the same yellow colored pencil to label the elements as "NONMETALS"
5. Use a blue colored pencil color in the boxes of the rest of the elements
6. Use the same blue colored pencil and label the elements as "METALS"




Atomic number 14
Symbol Si
Atomic mass 28.086
Silicon
Name
1 1A
2 2A
3 3B
4 4B
5 5B
6 6B
7 7B
8
9
10
8B
11 1B
12 2B
13 3A
14 4A
15 5A
16 6A
17 7A
18 8A
1 H 1.008 Hydrogen
2 He 4.003 Helium
3 Li 6.941 Lithium
4 Be 9.012 Beryllium
5 B 10.812 Boron
6 C 12.011 Carbon
7 N 14.007 Nitrogen
8 O 15.999 Oxygen
9 F 18.998 Fluorine
10 Ne 20.180 Neon
11 Na 22.990 Sodium
12 Mg 24.305 Magnesium
13 Al 26.982 Aluminum
14 Si 28.086 Silicon
15 P 30.974 Phosphorus
16 S 32.066 Sulfur
17 Cl 35.453 Chlorine
18 Ar 39.948 Argon
19 K 39.098 Potassium
20 Ca 40.078 Calcium
21 Sc 44.956 Scandium
22 Ti 47.867 Titanium
23 V 50.942 Vanadium
24 Cr 51.996 Chromium
25 Mn 54.938 Manganese
26 Fe 55.845 Iron
27 Co 58.933 Cobalt
28 Ni 58.693 Nickel
29 Cu 63.546 Copper
30 Zn 65.38 Zinc
31 Ga 69.723 Gallium
32 Ge 72.64 Germanium
33 As 74.922 Arsenic
34 Se 78.96 Selenium
35 Br 79.904 Bromine
36 Kr 83.798 Krypton
37 Rb 85.468 Rubidium
38 Sr 87.62 Strontium
39 Y 88.906 Yttrium
40 Zr 91.224 Zirconium
41 Nb 92.906 Niobium
42 Mo 95.96 Molybdenum
43 Tc (98) Technetium
44 Ru 101.07 Ruthenium
45 Rh 102.906 Rhodium
46 Pd 106.42 Palladium
47 Ag 107.868 Silver
48 Cd 112.412 Cadmium
49 In 114.818 Indium
50 Sn 118.711 Tin
51 Sb 121.760 Antimony
52 Te 127.60 Tellurium
53 I 126.904 Iodine
54 Xe 131.294 Xenon
55 Cs 132.905 Cesium
56 Ba 137.328 Barium
71 Lu 174.967 Lutetium
72 Hf 178.49 Hafnium
73 Ta 180.948 Tantalum
74 W 183.84 Tungsten
75 Re 186.207 Rhenium
76 Os 190.23 Osmium
77 Ir 192.217 Iridium
78 Pt 195.085 Platinum
79 Au 196.967 Gold
80 Hg 200.59 Mercury
81 Tl 204.383 Thallium
82 Pb 207.2 Lead
83 Bi 208.980 Bismuth
84 Po (209) Polonium
85 At (210) Astatine
86 Rn (222) Radon
87 Fr (223) Francium
88 Ra (226) Radium
103 Lr (262) Lawrencium
104 Rf (267) Rutherfordium
105 Db (268) Dubnium
106 Sg (271) Seaborgium
107 Bh (272) Bohrium
108 Hs (270) Hassium
109 Mt (276) Meitnerium
110 Ds (281) Darmstadtium
111 Rg (280) Roentgenium
Mass numbers in parentheses are those of the most stable or most common isotope.
Lanthanide Series
57 La 138.905 Lanthanum
58 Ce 140.116 Cerium
59 Pr 140.908 Praseodymium
60 Nd 144.242 Neodymium
61 Pm (145) Promethium
62 Sm 150.36 Samarium
63 Eu 151.964 Europium
64 Gd 157.25 Gadolinium
65 Tb 158.925 Terbium
66 Dy 162.500 Dysprosium
67 Ho 164.930 Holmium
68 Er 167.259 Erbium
69 Tm 168.934 Thulium
70 Yb 173.055 Ytterbium
Actinide Series
89 Ac (227) Actinium
90 Th 232.038 Thorium
91 Pa 231.036 Protactinium
92 U 238.029 Uranium
93 Np (237) Neptunium
94 Pu (244) Plutonium
95 Am (243) Americium
96 Cm (247) Curium
97 Bk (247) Berkelium
98 Cf (251) Californium
99 Es (252) Einsteinium
100 Fm (257) Fermium
101 Md (258) Mendelevium
102 No (259) Nobelium