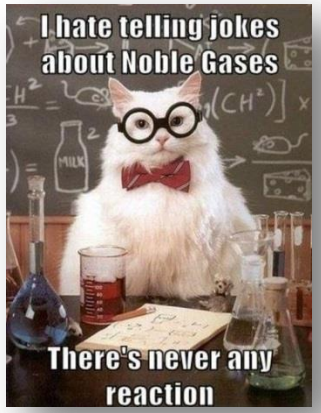
Name:_____

Getting To Know the Periodic Table

1. **In the empty center box, make a Key for each element box show where you can find the following information**
   - Element Symbol
   - The name of the element
   - Atomic Number
   - Atomic Weight
2. **Draw a heavy lack line between the metals and nonmetals**
3. **Write the name of each of the following groups above the number and color code them:**

Group	Name	Color
Group 1	alkali metals	purple
Group 2	alkaline earth metal	red
Group 3-12	(collectively) transition metals	green
Group 16*	chalcogens	brown
Group 17	halogens	Blue
Group 18	Noble gases	yellow
	Metaloids	Pink
	Lanthanides	orange
	Actinides	light blue

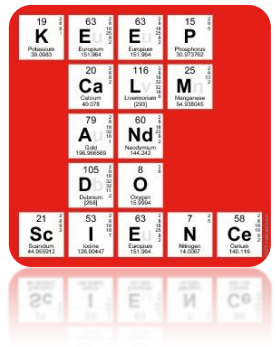


4. **Outline the symbol's box in dark green if it is RADIOACTIVE in its most common form**
5. **Complete the following paragraph using the words in the box on the right.**

   As you go across a row from left to right, the _____ of the element increases. The atomic number is the same as the number of protons in the nucleus of an atom. As well, elements that have similar _____ are placed in the same _____. For example, copper, silver, and _____ all have similar properties and are all placed in column eleven of the periodic table. Elements on the left side of the table tend to have properties of _____ and elements on the right side of the table tend to have properties of _____. Elements in column 18, the last column on the left, are _____ gases, which are gases that generally do not react with other elements.

Word Box:
- *Gold*
- *Properties*
- *Group*
- *Noble*
- *Metals*
- *Atomic number*
- *Nonmetals*

6. **Write the element symbol for the following atomic numbers to complete the riddle.**
   - My science teacher Mrs. Seleski frustrates me because… 16, 2, 92, 34, 16, 16, 18, 20, 62, 8, 9, 52, 7
   - _____



7. **Come up with your own Period symbol word or phrase:** _____

1 IA 1A	2 IIA 2A	3 IIIB 3B	4 IVB 4B	5 VB 5B	6 VIB 6B	7 VIIB 7B	8	8	11 IB 1B	12 IIB 2B	13 IIIA 3A	14 IVA 4A	15 VA 5A	16 VIA 6A	17 VIIA 7A	18 VIIIA 8A
1 **H** Hydrogen [1.00784;1.00811]																2 **He** Helium 4.002602(2)
3 **Li** Lithium [6.938;6.997]	4 **Be** Beryllium 9.0121831(5)										5 **B** Boron [10.806;10.821]	6 **C** Carbon [12.0096;12.0116]	7 **N** Nitrogen [14.00643;14.00728]	8 **O** Oxygen [15.99903;15.99977]	9 **F** Fluorine 18.998403163(6)	10 **Ne** Neon 20.1797(6)
11 **Na** Sodium 22.98976928(2)	12 **Mg** Magnesium [24.304,24.307]										13 **Al** Aluminum 26.9815386(8)	14 **Si** Silicon [28.084;28.086]	15 **P** Phosphorus 30.973761998(5)	16 **S** Sulfur [32.059;32.076]	17 **Cl** Chlorine [35.446;35.457]	18 **Ar** Argon 39.948(1)
19 **K** Potassium 39.0983(1)	20 **Ca** Calcium 40.078(4)	21 **Sc** Scandium 44.955908(5)	22 **Ti** Titanium 47.867(1)	23 **V** Vanadium 50.9415(1)	24 **Cr** Chromium 51.9961(6)	25 **Mn** Manganese 54.938045(5)	26 **Fe** Iron 55.845(2)	27 **Co** Cobalt 58.933194(4)	28 **Ni** Nickel 58.6934(4)	29 **Cu** Copper 63.546(3)	30 **Zn** Zinc 65.38(2)	31 **Ga** Gallium 69.723(1)	32 **Ge** Germanium 72.630(8)	33 **As** Arsenic 74.921595(6)	34 **Se** Selenium 78.971(8)	35 **Br** Bromine [79.901,79.907]	36 **Kr** Krypton 83.798(2)
37 **Rb** Rubidium 85.4678(3)	38 **Sr** Strontium 87.62(1)	39 **Y** Yttrium 88.90584(2)	40 **Zr** Zirconium 91.224(2)	41 **Nb** Niobium 92.90637(2)	42 **Mo** Molybdenum 95.95(1)	43 **Tc** Technetium <98>	44 **Ru** Ruthenium 101.07(2)	45 **Rh** Rhodium 102.90550(2)	46 **Pd** Palladium 106.42(1)	47 **Ag** Silver 107.8682(2)	48 **Cd** Cadmium 112.414(4)	49 **In** Indium 114.818(1)	50 **Sn** Tin 118.710(7)	51 **Sb** Antimony 121.760(1)	52 **Te** Tellurium 127.60(3)	53 **I** Iodine 126.90447(3)	54 **Xe** Xenon 131.293(6)
55 **Cs** Cesium 132.90545196(6)	56 **Ba** Barium 137.327(7)	57-71	72 **Hf** Hafnium 178.49(2)	73 **Ta** Tantalum 180.94788(2)	74 **W** Tungsten 183.84(1)	75 **Re** Rhenium 186.207(1)	76 **Os** Osmium 190.23(3)	77 **Ir** Iridium 192.217(3)	78 **Pt** Platinum 195.084(9)	79 **Au** Gold 196.966569(5)	80 **Hg** Mercury 200.592(3)	81 **Tl** Thallium [204.382;204.385]	82 **Pb** Lead 207.2(1)	83 **Bi** Bismuth 208.98040(1)	84 **Po** Polonium <209>	85 **At** Astatine <210>	86 **Rn** Radon <222>
87 **Fr** Francium <223>	88 **Ra** Radium <226>	89-103	104 **Rf** Rutherfordium <267>	105 **Db** Dubnium <268>	106 **Sg** Seaborgium <271>	107 **Bh** Bohrium <272>	108 **Hs** Hassium <270>	109 **Mt** Meitnerium <276>	110 **Ds** Darmstadtium <281>	111 **Rg** Roentgenium <280>	112 **Cn** Copernicium <285>	113 **Uut** Ununtrium unknown	114 **Fl** Flerovium <289>	115 **Uup** Ununpentium unknown	116 **Lv** Livermorium <293>	117 **Uus** Ununseptium unknown	118 **Uuo** Ununoctium unknown

Atomic mass values reflect the IUPAC accepted values as of 09/2013.

Masses expressed in [a,b] format show the lower and upper limit of atomic mass depending on the physical and chemical history of the element.

Masses expressed in < > format are the mass numbers of the longest-lived isotope for elements with no stable nucleus.

Lanthanide Series	57 **La** Lanthanum 138.90547(7)	58 **Ce** Cerium 140.116(1)	59 **Pr** Praseodymium 140.90766(2)	60 **Nd** Neodymium 144.242(3)	61 **Pm** Promethium <145>	62 **Sm** Samarium 150.36(2)	63 **Eu** Europium 151.964(1)	64 **Gd** Gadolinium 157.25(3)	65 **Tb** Terbium 158.92535(2)	66 **Dy** Dysprosium 162.500(1)	67 **Ho** Holmium 164.93033(2)	68 **Er** Erbium 167.259(3)	69 **Tm** Thulium 168.93422(2)	70 **Yb** Ytterbium 173.054(5)	71 **Lu** Lutetium 174.9668(1)
Actinide Series	89 **Ac** Actinium <227>	90 **Th** Thorium 232.0377(4)	91 **Pa** Protactinium 231.03588(2)	92 **U** Uranium 238.02891(3)	93 **Np** Neptunium <237>	94 **Pu** Plutonium <244>	95 **Am** Americium <243>	96 **Cm** Curium <247>	97 **Bk** Berkelium <247>	98 **Cf** Californium <251>	99 **Es** Einsteinium <252>	100 **Fm** Fermium <257>	101 **Md** Mendelevium <258>	102 **No** Nobelium <259>	103 **Lr** Lawrencium <262>