

Chemistry – Periodic Table Activity

Name: _____ Date: _____ Period: _____

Go to the web site www.ptable.com. Make sure that the Wikipedia tab is selected in the upper left hand corner of the screen.

1. Using the color coded information at the upper-middle section of the periodic table, use colored pencil to color in the different regions of the periodic table on the back of this sheet. They should include the six different **types** of metals, the three different **types** of nonmetals and the semimetals. Draw a color coded legend on your periodic table to identify which color goes with which region.

2. Label (number) the different periods (series) and groups (families) on your periodic table.

3. In how many places on the periodic table are elements listed where the atomic number goes up, but the atomic mass goes down (do not include elements with masses in parenthesis)? _____

Give the full atomic symbols for the pair(s) of elements for which this happens. _____

4. How many elements have 14 neutrons? _____ Name it/them: _____

Use the temperature slider in the upper right to answer the following questions:

5. Which element has the lowest melting point? _____

6. Not including the synthetic elements with unknown state properties, which element has the highest boiling point? _____ What is this temperature in Fahrenheit? _____

7. How many elements are liquids at room temperature (70°F)? _____

Name it/them: _____

8. What is the **next** element to turn into a liquid as the temperature increases from room temperature (70°F)? _____ What is this element's classification? _____

9. How many elements are gases at room temperature (70°F)? _____

How many of these gases are metals vs. nonmetals? _____

10. Which element has the highest melting point? _____

11. How many elements are liquids at the boiling point of water? _____

Name it/them: _____

Click on the Properties Tab in the upper left to answer the following questions:

12. Which element has the greatest (STP) density? _____ What is this density in g/cm³? _____

13. How many elements were "known" prior to 1730AD? _____.

Give the symbols for these elements: _____

14. What were the first two elements "discovered" after 1730? _____

15. Who is credited with "discovering" them? (Hint: Click on the group number of the element to find out more information): _____

16. What year was helium discovered and by whom? _____

17. Where was helium first identified? _____

Periodic Table

1 H Hydrogen 1.0079											2 He Helium 4.003						
3 Li Lithium 6.941	4 Be Beryllium 9.012											5 B Boron 10.81	6 C Carbon 12.01	7 N Nitrogen 14.01	8 O Oxygen 16.00	9 F Fluorine 19.00	10 Ne Neon 20.18
11 Na Sodium 22.99	12 Mg Magnesium 24.31											13 Al Aluminum 26.98	14 Si Silicon 28.09	15 P Phosphorus 30.97	16 S Sulfur 32.07	17 Cl Chlorine 35.45	18 Ar Argon 39.95
19 K Potassium 39.10	20 Ca Calcium 40.08	21 Sc Scandium 44.96	22 Ti Titanium 47.88	23 V Vanadium 50.94	24 Cr Chromium 52.00	25 Mn Manganese 54.94	26 Fe Iron 55.85	27 Co Cobalt 58.93	28 Ni Nickel 58.69	29 Cu Copper 63.55	30 Zn Zinc 65.39	31 Ga Gallium 69.72	32 Ge Germanium 72.61	33 As Arsenic 74.92	34 Se Selenium 78.96	35 Br Bromine 79.90	36 Kr Krypton 83.80
37 Rb Rubidium 85.47	38 Sr Strontium 87.62	39 Y Yttrium 88.91	40 Zr Zirconium 91.22	41 Nb Niobium 92.91	42 Mo Molybdenum 95.94	43 Tc Technetium (99)	44 Ru Ruthenium 101.07	45 Rh Rhodium 102.91	46 Pd Palladium 106.42	47 Ag Silver 107.87	48 Cd Cadmium 112.41	49 In Indium 114.82	50 Sn Tin 118.71	51 Sb Antimony 121.75	52 Te Tellurium 127.60	53 I Iodine 126.90	54 Xe Xenon 131.29
55 Cs Cesium 132.91	56 Ba Barium 137.33	57 La Lanthanum 138.91	72 Hf Hafnium 178.49	73 Ta Tantalum 180.95	74 W Tungsten 183.85	75 Re Rhenium 186.21	76 Os Osmium 190.2	77 Ir Iridium 192.22	78 Pt Platinum 195.08	79 Au Gold 196.97	80 Hg Mercury 200.59	81 Tl Thallium 204.38	82 Pb Lead 207.2	83 Bi Bismuth 208.98	84 Po Polonium (209)	85 At Astatine (210)	86 Rn Radon (222)
87 Fr Francium (223)	88 Ra Radium 226.03	89 Ac Actinium 227.03	104 Rf Rutherfordium (261)	105 Db Dubnium (262)	106 Sg Seaborgium (263)	107 Bh Bohrium (262)	108 Hs Hassium (265)	109 Mt Meitnerium (266)	110 Ds Darmstadtium (281)	111 Rg Roentgenium (280)	112 ** (285)	113 ** (284)	114 ** (289)	115 ** (288)	116 ** (292)		118 ** (294)

58 Ce Cerium 140.12	59 Pr Praseodymium 140.91	60 Nd Neodymium 144.24	61 Pm Promethium (147)	62 Sm Samarium 150.36	63 Eu Europium 151.97	64 Gd Gadolinium 157.25	65 Tb Terbium 158.93	66 Dy Dysprosium 162.50	67 Ho Holmium 164.93	68 Er Erbium 167.26	69 Tm Thulium 168.93	70 Yb Ytterbium 173.04	71 Lu Lutetium 174.97
90 Th Thorium (232)	91 Pa Protactinium (231)	92 U Uranium (238)	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 (260)