

PERIODIC TABLE CHALLENGE: ANSWER KEY

WITHOUT USING YOUR PERIODIC TABLE, SEE IF YOU CAN FILL IN THE FOLLOWING BLANKS
(on this front side):

Write the names for each of the following elements: (spelling them correctly!)

H: Hydrogen

Ru: Ruthenium

Mg: Magnesium

S: Sulphur (ph is Canadian)

I: Iodine

Ne: Neon

Cr: Chromium

B: Boron

As: Arsenic

Kr: Krypton

Write the symbols for each of these elements:

Gold: Au

Silver: Ag

Beryllium: Be

Aluminum: Al

Iron: Fe

Bromine: Br

Scandium: Sc

Platinum: Pt

Mercury: Hg

Tin: Sn

Lead: Pb

Chlorine: Cl

Write the chemical formulas for three polyatomic elements:

H_2 , N_2 , O_2 , F_2 , Cl_2 , Br_2 , I_2 , At_2 , P_4 , S_8

Write the chemical symbols for three nonmetallic elements:

Lots to choose from. Eg. C, P, Se, I, Rn

Write the chemical symbols for three metallic elements:

Lots to choose from. Eg. Li, Mg, Sc, W

Metals, Nonmetals, and Metalloids

1 H	2 He																														
3 Li	4 Be	5 B	6 C	7 N	8 O	9 F	10 Ne																								
11 Na	12 Mg	13 Al	14 Si	15 P	16 S	17 Cl	18 Ar																								
19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr														
37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe														
55 Cs	56 Ba	57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb	71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
87 Fr	88 Ra	89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 Ds	103 Nh	104 Fl	105 Mc	106 Lv	107 Ts	108 Og	109 Boh	110 Hs	111 Mt	112 Ds	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og

ANSWER KEY

1. Write the combining capacity of:

- a) Sulphur -2
- b) Potassium +1
- c) Beryllium +2
- d) Neon 0
- e) Silver +1

2.

- a) Mg +2
- b) Ga +3
or (it is a transition metal so ? ...)
- c) Bi +3
or (it is a transition metal so ? ...)
- d) Fr +1
- e) Rn 0

3. What element is at the following Periodic Table location?

- a) Period 2 Group 5 **does not exist!!!**
- b) Period 5 Group 14 **Sn**
- c) Period 3 Group 13 **Al**
- d) Period 6 Group 11 **Au**
- e) Period 4 Group 18 **Kr**

4. What is the Periodic Table location of the following elements?

Element	Period	Group
Silicon	3	14
Iron	4	8
Francium	7	1
Uranium An Actinide!	7	3
Osmium	6	8

5. List 3 diatomic elements (at least one in a different family)



6. What is the **most metallic element** on the Periodic Table? **Fr**

What is the most **nonmetallic REACTIVE** element? **F**

note...most **nonmetallic non-REACTIVE** element? **He**

7. Mark the metallic elements as **M** and the non metallic elements as **NM**.

Metals, Nonmetals, and Metalloids

1 H Hydrogen																	2 He Helium						
3 Li Lithium	4 Be Beryllium																	5 B Boron	6 C Carbon	7 N Nitrogen	8 O Oxygen	9 F Fluorine	10 Ne Neon
11 Na Sodium	12 Mg Magnesium																	13 Al Aluminum	14 Si Silicon	15 P Phosphorus	16 S Sulfur	17 Cl Chlorine	18 Ar Argon
19 K Potassium	20 Ca Calcium	21 Sc Scandium	22 Ti Titanium	23 V Vanadium	24 Cr Chromium	25 Mn Manganese	26 Fe Iron	27 Co Cobalt	28 Ni Nickel	29 Cu Copper	30 Zn Zinc	31 Ga Gallium	32 Ge Germanium	33 As Arsenic	34 Se Selenium	35 Br Bromine	36 Kr Krypton						
37 Rb Rubidium	38 Sr Strontium	39 Y Yttrium	40 Zr Zirconium	41 Nb Niobium	42 Mo Molybdenum	43 Tc Technetium	44 Ru Ruthenium	45 Rh Rhodium	46 Pd Palladium	47 Ag Silver	48 Cd Cadmium	49 In Indium	50 Sn Tin	51 Sb Antimony	52 Te Tellurium	53 I Iodine	54 Xe Xenon						
55 Cs Cesium	56 Ba Barium	57 La Lanthanum	72 Hf Hafnium	73 Ta Tantalum	74 W Tungsten	75 Re Rhenium	76 Os Osmium	77 Ir Iridium	78 Pt Platinum	79 Au Gold	80 Hg Mercury	81 Tl Thallium	82 Pb Lead	83 Bi Bismuth	84 Po Polonium	85 At Astatine	86 Rn Radon						
87 Fr Francium	88 Ra Radium	89 Ac Actinium	104 Rf Rutherfordium	105 Db Dubnium	106 Sg Seaborgium	107 Bh Bohrium	108 Hs Hassium	109 Mt Meitnerium	110	111	112	113	114										

- | | | | |
|--------------|-----------|--------------|----|
| 1. M | Potassium | 6. M | Sm |
| 2. NM | Chlorine | 7. M | Os |
| 3. M | Mercury | 8. * | As |
| 4. * | Silicon | 9. NM | H |
| 5. * | Antimony | 10. * | B |

*** THE METALLOIDS ARE**

B, Si, Ge, As, Sb, Te, At