

Periodic Trends Worksheet 1

Name:

Date:

Block:

- The Periodic Table is organized according to what number? _____
- The columns on a periodic table are called the _____
- The rows on a periodic table are called the _____
- The most reactive metallic family is the _____
- The most reactive non-metallic family is the _____
- The family which has no reactive elements is the _____
- Define the term **atomic radius**. Describe the periodic trend as you move UP a family. Describe the periodic trend as you move ACROSS (to the right of) a period.

8. Arrange the following atoms in order of **increasing** atomic radius: N, Sb, P, Bi, As

9. Arrange the following ions in order of **increasing** atomic radius: Cl⁻, K⁺, S²⁻, Ca²⁺, P³⁻

10. Define **ionization energy**.

11. What is the relationship between atomic radius and ionization energy?

12. On the periodic table below, draw and label an arrow of increasing atomic radius. Then, draw and label an arrow of increasing ionization energy.

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	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	104 Rf	105 Ha	106 Sg	107 Ns	108 Hs	109 Mt	110	111	112	(113)	(114)	(115)	(116)	(117)	(118)

13. Arrange the following atoms in order of **increasing** first ionization energy: Ba, Ca, Be, Sr, Mg