

Name: _____

Group: _____ Block #: _____

Date: _____



Exceed to Succeed

Worksheet: Periodic Trends

1. ATOMIC RADIUS

For each of the following sets of atoms, rank the atoms from smallest to largest atomic radius.

- Li, C, F
- Li, Na, K
- Ge, P, O
- C, N, Al
- Al, Cl, Ga

2. IONIC RADIUS

For each of the following sets of ions, rank them from smallest to largest ionic radius.

- Mg^{2+} , Si^{4+} , S^{2-}
- Mg^{2+} , Ca^{2+} , Ba^{2+}
- F^- , Cl^- , Br^-
- Ba^{2+} , Cu^{2+} , Zn^{2+}
- Si^{4-} , P^{3-} , O^{2-}

3. IONIZATION ENERGY

For each of the following sets of atoms, rank them from lowest to highest ionization energy.

- Mg, Si, S
- Mg, Ca, Ba
- F, Cl, Br
- Ba, Cu, Ne
- Si, P, He

4. ELECTRONEGATIVITY

For each of the following sets of atoms, rank them from lowest to highest electronegativity.

- Li, C, N
- C, O, Ne
- Si, P, O
- K, Mg, P
- S, F, He

Periodic Trends Worksheet

- 1) Rank the following elements by increasing atomic radius: carbon, aluminum, oxygen, potassium.
- 2) Rank the following elements by increasing electronegativity: sulfur, oxygen, neon, aluminum.
- 3) What is the difference between electron affinity and ionization energy?
- 4) Why does fluorine have a higher ionization energy than iodine?
- 5) Why do elements in the same family generally have similar properties?