

Name: _____

Period: _____

The Periodic Table Exam Review

Who designed the first Periodic Table and how was it arranged? _____

Who designed the modern Periodic Table and how is it arranged? _____

Write the name that is given to the following groups of elements:

Group A Elements: _____ Group B Elements: _____

Group 1A Elements: _____ Group 2A Elements: _____

Group 7A Elements: _____ Group 8A Elements: _____

The two rows of elements at the bottom of the Periodic Table: _____

Fill in the blanks with s, p, d, or f block:

Inner transition metals: _____

Groups 1A&2A: _____

Transition metals: _____

Groups 3A-8A(or 0): _____

Arrange the elements Li, Cs, and F in order of increasing atomic sizes: _____, _____, _____

In each pair, circle which radius is larger: K or K^+ Br or Br^-

Define ionization energy (IE): _____

(increases or decreases) In general, ionization energy _____ as you go across a period and _____ as you go down a group.

Circle the element that has the lower IE: Cl or Na

Define electronegativity: _____

Rank the elements B, F, Cs, and K from lowest electronegativity to highest: _____, _____, _____, _____

In general, nonmetals have (low or high) electronegativity and tend to (lose or gain) electrons when they form ions.

Rank the elements Al, Na, and O in order of increasing ionization energy: _____, _____, _____

Circle which element or ion would be smaller:

Ca or Ca^{2+}

O or O^{2-}

Br or Br^-

Na or Na^+

As you move from left to right across the periodic table, what happens to the size of an atom?

Which element on the periodic table has the highest electronegativity? _____

Why is the previous answer NOT Helium? _____

Circle the element in each pair that has the greatest atomic radius.

sodium or lithium

strontium or magnesium

carbon or germanium

selenium or oxygen

The scientist that first developed the periodic table was _____. He arranged the elements according to increasing atomic _____. The modern periodic table was designed by _____, who arranged the elements according to increasing atomic _____.

Arrange the following elements in order of increasing ionization energy.

Be, Mg, Sr _____

Bi, Cs, Ba _____

Na, Al, S _____

Circle the particle that has the larger radius in each atom/ion pair.

Al^{+3} or Al

S^{-2} or S

N^{+3} or N^{-3}

Draw and label the periodic trends. Fill in the element that has the highest value for each trend.

