Arrange the atoms on the table provided from largest to smallest going down the column. The column numbers should match the number of valence electrons for the atom.

1. What do you notice about your arrangement and the periodic table?

- 1. Balance the following equation:  $CH_4 + \_O_2 \longrightarrow CO_2 + \_H_2O$
- 2. create the equation using the atoms provided. Take a picture of the products:  $CO_2 + \underline{\hspace{1cm}} H_2O$  and attach the photo to the schoology assignment.

Take a picture of the reactants:

 $CH_4 + \_O_2$ 

and attach the photo to the schoology assignment.

Use the atoms to create a NaCl molecule and a  ${\rm H_2O}$  molecule

- 1. Disolve the salt in a beaker of water. Record your observations:
- 2. Observe the strength of the bonds in the model of NaCl and the model of  $H_2O$ . Highlight or circle the molecule with the stronger bonds:

$$\mathrm{NaCl}\,+\,\mathrm{H_2O}$$