Cut and Paste Formula Writing Lab

Objectives: You will use visuals in the form of puzzle pieces to see how and why ions form ionic compounds.

1. Procedure:
   1. Color and cut out the puzzle pieces.
   2. Glue them together on paper to make the correct model of the compound according to the compound list below.
   3. Next to the glued pieces write the
      a. the formula
      b. the compound name

| Compound List | 1) K and I | 2) Ca and Br | 3) Cu and O | 4) Fe^{2+} and S | 5) Ga and PO_4^- | 6) Fe^{3+} and OH^- | 7) Li and F | 8) K and S | 9) Ca and S |

Questions:

1. In terms of electrons, what is the difference between a covalent and ionic bond?

2. How do you use a chemical formula to tell how the elements are bonded?

3. Why must oxidation numbers be assigned to the elements before writing a chemical formula?

4. Why do atoms bond together?

5. What does the chemical formula contain if it has three or more capital letters?

Conclusion (3-5 sentences about what you learned)