

Biology 1110 - Chemical Bonding Activity

For **each** of the atoms shown (Cl, F, Ne, Cr, H, and K), review the electron shell diagram and answer the following questions on a separate piece of paper. You may find it helpful to cut out each of the atoms so that you can compare them side by side. Since there are 6 atoms on the page, you will go through this question set 6 times - once for each atom.

- Is this atom capable of bonding? If the answer is no, skip the remaining questions for this atom. If the answer is yes, continue with the questions
- Could this atom bond with another atom of the exact same type? (For example, if you are looking at the chlorine atom, this question is asking if chlorine could bond to another chlorine atom.) If the answer is yes, what type of bond would it be?
- Compare the atom to each of the other atoms on the page. List every other atom that this atom could bond with. For example, if I am working with chlorine, I would want to compare it to F, Ne, Cr, H, and K. Make sure to indicate whether the bond would be ionic or covalent for each of your choices. If you indicate that a bond is covalent, make sure to be specific and state whether it would be a polar or nonpolar covalent bond.

