

Your assignment is to watch these videos before Thursday's class- come to class with any questions you have. It will be assumed that you have watched these videos as we go into Thursday's class and into a two day lab. If you do not watch these videos and take notes before class, you will be far behind where you need to be in order to understand this lab.

Video Lessons

Each video is a continuation of the previous one. In total this is a 25 minute lesson on basic chemistry and chemical bonding. Take notes as you would in class (do whatever helps you learn best – only you can determine that) but you can pause and rewind videos allowing you to work at your own pace and comfort level.

After watching these videos, you should be able to answer the following questions below (write the answers down, as I will check them):

- 1. What sub-atomic particles determine the mass of an atom?*
- 2. What determines how one atom will interact with another atom?*
- 3. What are valence electrons and why are they important?*
- 4. What is the octet rule? What are three ways that an atom can achieve stability and satisfy the octet rule?*
- 5. What is an ion? How does an ion form?*
- 6. What is the attraction between two oppositely charged ions called?*
- 7. What is the attraction called between two atoms that are sharing electrons to achieve stability?*
- 8. What must happen in order for a covalent bond to be considered **polar**? What about **nonpolar**?*
- 9. When a bond is polar, why is one side of the molecule slightly negative and the other slightly positive?*
- 10. What information about the composition of a molecule does the molecular formula provide?*
- 11. If a molecule is polar, what would be true about the charge at opposite ends of the molecule? (in other words, would the ends of the molecule have no difference in charge OR would one end be slightly positive and the other end slightly negative?)*