Pre lab notes:

Laboratory Exercise 7.2	Modeling Chemical Equations

**Use the atom models you made in Lab 6.4 "A Model of Bonding" to model chemical reactions

^^^^^^^ **LOOK UP** ^^^^^^^^

- Learn how to write the complete, balanced chemical equations that describe the reactions using Coefficients and Subscripts.
  https://www.youtube.com/watch?v=PQamMsq79F0

  watch this video ^^^ and take some notes ^^^

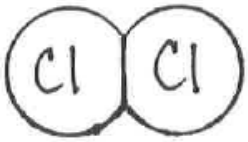
Get out your Sodium and Chlorine squirkles…. (copy down **only the bolded parts into your notes)**

a. Sodium is a metal, and thus can be a single atom.

   "Metals and non-gaseous Non-metals come as single atoms."

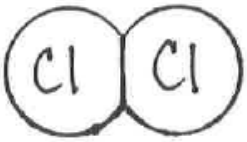
b. Chlorine is a diatomic gas, thus must always be paired with another Chlorine.

   "Diatomic gases always come in pairs."



c. Start with one Na and one Cl_2. These are your reactants.

   "Reactants go on the left side of your equation."



d. During a reaction bonds break, so break the Cl_2 into Cl and Cl.

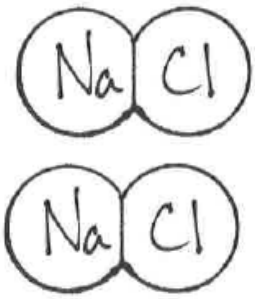
   "Break the bonds on reactants, form new bonds to make products."

e. During a reaction new bonds form, so combine the Na with the Cl to make NaCl. This is a Product, so move it to the right side of your equation.

"Products go on the right side of your equation"

f. You still have one Cl left and you need to use it up. To do that you'll need another Sodium. So grab another Na, combine it with the leftover Cl, and move the NaCl to the right.

"You may add as much reactant as you need as you go, but you aren't done until all reactant is used. NO LEFTOVERS!"



g. Total out what you used and made. You used 1 Cl_2 and 2 Na's. You made 2 NaCl's.

Write this in equation form: **2 Na + Cl_2 → 2 NaCl.**

You're done, because the reaction is "balanced", that is, it has the same number of atoms on both sides.