Team CHEM1B-AL Poster Activity on "Chemical Bonds"

Posters have become a prominent mode of communication at scientific meetings. They often are used to present research findings in an organized manner generally following an organization which leads from

introduction of the scientific question ⇒ hypotheses ⇒ experimental procedures ⇒ results ⇒ interpretation and conclusions ⇒ and often then to "next steps" or "unanswered questions"

In class we will present one or two examples of posters presented at scientific meetings- some created by advanced undergraduates for the PBSci Undergraduate Research symposium. An important aspect of Poster Presentations is that they combine **very tightly written text** (*even more restrictive than a 140-character tweet!!*) with illustrations and graphs. Although our activity will not pretend to communicate new research findings, teams will have an opportunity to combine text and illustrations to communicate an idea.

1. Distributed around the classroom will be stations with sheets of poster paper and markers.
2. Teams will assemble at a station and **AS A TEAM** prepare a poster that addresses with text (in your own words) and drawings (by thy own hand) each of the following questions.

    A. What are the general characteristics that define a chemical bond (i.e. 'what is a chemical bond')?

    B. ***For each of the three major types of chemical bonds:***
    What is the difference between the distributions of electrons in the constituent atoms forming a bond and the distribution of electrons in the molecule (i.e. in the bond) after the bond is formed?

    C. Define the type of bond that is formed by combining the following atoms and compare the differing properties of the molecules or substances that would result.
        - **i. Na + Na**
        - **ii. Ca + Br**
        - **iii. Cl + Cl**
        - **iv. Br + Cl**