**Chemistry 2010-2011: Periodic Table Project**

This project is expected to provide students the opportunity to demonstrate application of the following learning expectations:

1. To apply understanding of the periodic trends of elements concerning atomic radius, electro negativity, reactivity and ionization energy.
2. To apply understanding of periodic properties to explain relationships between specific elements who share the same group and or period
3. To apply understanding of an elements properties to the uses of the element in today’s world
4. To demonstrate the ability to use power point technologies and presentation skills
5. To demonstrate ability to learn cooperatively

**Each group** of students will construct a power point presentation designed to help explain the relevant information concerning their three assigned elements. You are expected to teach the class what you have learned.

* The presentation will be made in front of the whole class and should be expected to last 5-10 minutes.
  + Presenters will **provide a handout** to each student which is designed to help them take notes.
  + Presenters will also **construct three questions**, designed to be included in a content assessment.
* **All group members** must be actively engaged in the presentation and the creation of the power point.
* **Two grades will be given** to each student; one on presentation and the other based on content knowledge
  + **Two rubrics are provided**

**Content Criteria:** The presentation **will include the following information** about each element, about the relationships between the elements, and will relate these properties to their location on the periodic table.

* Name of element and symbol
* Atomic number and Atomic mass
* Classification (What group or class does it belong to?)
* State at standard temp and pressure
* Melting point and Boiling point
* Electron negativity and Ionization energy
* Valence electrons
* Atomic Radius
* Density
* Images of it in its elemental state
* Year discovered
* Orbital information
  + Lewis dot diagram
  + Bohr model
  + Electron configuration
* Isotopes of each element
* Common uses in today’s society, with explanation of why it is well suited for this
* What do they look like in the real world?
* **Compare and contrast** the elements. How are the three elements similar? How are the three elements different?
* Explain why they are arranged on the periodic table the way they are?

Use the following website to begin your search: http://www.ptable.com/