**Building Blocks of All Matter**

**Unit 1: Culminating Project**

**Standard: S8P1a-f**

**Directions:** Select an element from the periodic table. Your teacher will allow you to pick from pre-selected elements. When you select your element go to the class website and enter your name block and element name into the spreadsheet. Then use the checklists from each part below to create a small poster.

**Part 1: Define it**

Create a periodic table square for your selected element. Your square must include the following information from the checklist below; the symbol must be color coded based on its state at room temperature (Solid=Black, Liquid=Blue, and Gas=Red):

* Chemical Symbol
* Element name
* Atomic number
* Atomic mass

**Part 2: Build It**

Create a model of your atom’s structure using the materials provided by your teacher.

* Nucleus
* Protons
* Neutrons
* Electrons
* Color coded electron shells: shell 1=red, shell 2=orange, shell 3=yellow, shell 4= green, shell 5=blue, shell 6=purple
* Key or legend defining the parts of the atom.

**Part 3: Write About It**

Clearly, legibly, and neatly write or type the following information. How you organize your information is up to you however, it must be organized and make sense. You must use proper grammar, sentence structure, and punctuation.

* List your element’s basic information: name, symbol, atomic number, atomic mass,
* State of matter at room temperature
* State the element’s Boiling Point, Melting Point, and Freezing Point
* Tell the element’s group or family
* Give the characteristics and similar properties both chemical and physical for your element
* Tell the element’s period
* What is the significance, patterns, and trends of your element’s period
* Write about and explain at least 4 additional interesting facts specifically about your element

Part 4: Talk About It

In groups of 4, one person/element from each period talk to your group and teach them about your element its family, and period.