

# 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.

### Building Blocks of All Matter Choice Board Project Rubric

Name: \_\_\_\_\_ DUE DATE: \_\_\_\_\_

Proficiency Level	1	2	3	4
Content	No content specific to the element addressed. Lacks facts and/or details. (2pts)	Some of the content specific to the element addressed, most content is inaccurate or lacks detail. (4pts)	Most of the content specific to the element is addressed, some content lacks detail. (6pts)	All content specific to the element is addressed. Obviously well researched and factually based. (8pts)
Presentation/ Organization	Project is not organized and hard to follow. Information is misleading and/or confusing to follow and understand. (1pts)	Project is lacking some organization and does not look well thought out or planned. Project is confusing and lacks clear structure. (2pts)	Project is mostly organized but could offer a more engaging structure. (3pts)	Project is well organized. Text layout is legible, easy to follow, and appropriately utilizes headings. (4pts)
Creativity	Student showed no creativity. Lacks color and illustrations. (1pt)	Student showed little creativity. Illustrations lacking or irrelevant. Little or no color. (2pts)	Student showed creativity in most components of the project. Some color, illustrations or creativity in layout. (3pts)	Student was exceptionally creative and organized. Good use of color and illustrations. (4pts)
Choice Board Checklist	No components of the checklist apparent for the selected element. (1pt)	Student completes 6 components of the checklist for the selected element. (2pts)	Student completes 12 components of the checklist for the selected element. (3pts)	Student completes all components of the checklist for the selected element. (4pts)
Spelling, grammar, etc.	Lots of grammatical and spelling errors. (1pt)	Some spelling errors or grammatical errors. (2pts)	One or two minor spelling or grammatical errors. (3pts)	No spelling or grammatical errors, and neat. (4pts)

Comments: