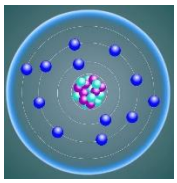

Mrs. Brown's Periodic Table Review Stations

Name _____ Date_____ Period _____

Use the sheets and manipulatives to complete the following activities. Get my initials before moving onto the next activity. Use PENCIL!

Activity 1- Vocabulary

The definitions of the following terms are mixed up at the table. Match the definition with the term and write it completely in the appropriate space below:

Group/Family	
Period	
Metal	
Metalloid	
Nonmetal	
Ion	
Cation	
Anion	

Mrs. Brown's Initials _____ Move on to Activity 2

Activity 2: Fill-in-the-Blank

Use the terms in the wordle at the station to fill in the blanks in the paragraph below. You will use every word only once!

When Dimitri _____ first proposed his periodic table in the late 1800s, he organized it by atomic mass. He smartly left spaces for _____ elements. Henry Moseley later organized it by atomic _____. Today there are 120 discovered elements. Most of these elements, including the left side of the table, are _____. They are good conductors, can be drawn into a thin wire (_____) and hammered into thin sheets (_____) and are shiny (have _____). The _____ are found in the upper right side of the table. They are poor conductors (_____), break easily (_____) and not shiny (_____). There are 6 _____ along the "stairsteps", including Boron, Silicon, and others. They share properties with both metals and nonmetals and are _____. There are 18 _____ or vertical columns of elements on the periodic table. The horizontal rows are called _____. Groups 1-2 and 13-18 are the A-groups and have predictable _____ electrons. Groups 3-12 are the _____ metals and we cannot predict valence. The period indicates the number of occupied electron _____ levels.

Mrs. Brown's Initials _____ Move on to Activity 3

Activity 3- Families of Elements

Use your periodic table. For each element identify the group/family the element is in (both number and name), indicate it's valence electrons (if predictable) or indicate that the valence is unpredictable and draw a dot diagram if possible.

Element	Group # (both regular and A-group)	Family name	Valence electrons	Dot diagram
Fluorine				
Aluminum				
Potassium				
Vanadium				
Sulfur				
Silicon				
Beryllium				
Krypton				
Phosphorus				
Helium				

Mrs. Brown's Initials _____ Move on to Activity 4

Activity 4: Valence Trends and Ion Charge

1. **Why do elements gain or lose electrons?**

2. **Metals tend to _____ valence electrons to form _____. Nonmetals tend to _____ valence electrons to form _____.**

3. **Why don't the noble gases form ions?**

Use the table below to describe the ion formation for the element sheet Mrs. Brown has issued to your group. GROUP #_____

Element	Metal (M) or Nonmetal (NM)	How many lost/gained?	Ion Charge	Cation or Anion?

Mrs. Brown's Initials _____ Move on to Activity 5

Activity 5: Multiple Choice (Tying it Together)

1. _____ 2. _____ 3. _____ 4. _____

Mrs. Brown's Initials _____ Great Job!!! Turn the sheet into the tray!!!

Definitions- Make copies for each table (cut) for centers or 1 copy (cut) for stations

The vertical columns of elements that share physical and chemical properties as well as the same valence electrons.
The horizontal rows of elements that share the same number of occupied energy levels.
The elements on the left side of the periodic table that are excellent conductors of heat and electricity.
The elements on the right side of the periodic table that are insulators and generally brittle and dull.
The elements along the stairsteps, that share properties of both metals and nonmetals and are semiconductors.
An atom that has gained or lost electrons to achieve a noble gas configuration with a charge.
Positive ions formed by metals who have lost all of their valence electrons.
Negative ions formed by nonmetals who have gained valence electrons to have a full outer shell.

Wordle for Activity 2. Use the terms to fill in the blanks!

Element Cards for Activity 4.

Group 1 **Al, N, K, F, Si**
Group 2 **P, B, Be, Cl, O**
Group 3 **S, Al, Na, I, Mg**
Group 4 **C, Ca, Br, S, Li**
Group 5 **Be, Al, Cl, O, H**

Multiple Choice Task Cards for Activity 5.

1. An element is brittle, has luster and is a semiconductor. What is it? **A) metalloid** **B) metal** **C) nonmetal** **D) noble gas**	**2.** Which of the following is an alkaline earth metal? **A) Lithium** **B) Calcium** **C) Iron** **D) Argon**
3. What is the common ion charge when the alkali metals form ions? **A) +1** **B) +2** **C) -1** **D) -2**	**4.** What is the common ion charge when the halogens form ions? **A) +1** **B) +2** **C) -1** **D) -2**