

Name \_\_\_\_\_

Period \_\_\_\_\_

**Introduction to periodic table lab Activity Worksheet**

1. The vertical columns on the periodic table are called \_\_\_\_\_.
2. The horizontal rows on the periodic table are called \_\_\_\_\_.
3. Most of the elements in the periodic table are classified as \_\_\_\_\_ (Circle One)  
METALS                      NON METALS
4. The elements that touch the zigzag line are classified as \_\_\_\_\_.
5. Elements that have one valence electron and are very reactive are called \_\_\_\_\_.
6. Elements that have two valence electrons are also very reactive are called \_\_\_\_\_.
7. Elements in group 3 through 12 have many useful properties and are called \_\_\_\_\_.
8. Elements that have 7 valence electrons are known as salt formers \_\_\_\_\_.
9. Elements that have 8 valence electrons and are not reactive are called \_\_\_\_\_.
10. The elements at the bottom of the table were pulled out to keep the table from becoming too long. The first period at the bottom are called the \_\_\_\_\_.
11. The second period at the bottom of the table is called \_\_\_\_\_.
12. What do you notice about the number of valence electrons as you move from left to right on the periodic table of elements?

13. In which family would the following elements belong:

Radium - \_\_\_\_\_ Tin - \_\_\_\_\_

Iodine - \_\_\_\_\_ Cesium - \_\_\_\_\_

14. How many valence electrons do the following elements have?

Barium = \_\_\_\_\_ Chlorine = \_\_\_\_\_ Phosphorus = \_\_\_\_\_ Potassium = \_\_\_\_\_

15. What state of matter are the following elements in at room temperature:

Sodium= \_\_\_\_\_

Bromine= \_\_\_\_\_

Nitrogen= \_\_\_\_\_

16. Determine if the following elements are metals, non metals or metalloids.

Silicon= \_\_\_\_\_

Sulfur= \_\_\_\_\_

Potassium= \_\_\_\_\_

Chromium= \_\_\_\_\_

Periodic Table Lab Instructions: Follow the instructions to color code the periodic table.

1. Color the square for hydrogen pink.
2. Lightly color all metals yellow.
3. Place black dots in the squares of all alkali metals.
4. Draw a horizontal line across each box in the group of alkaline earth metals.
5. Draw a diagonal line across each box of all transition metals.
6. Using a black color, trace the zigzag line that separates the metals from the non metals.
7. Color the metalloids purple. (Remember the exception of the one metal that touches this line but is really classified as other metals).
8. Color the nonmetals orange.
9. Draw small brown circles in each box of halogens.
10. Draw checkerboard lines through all the boxes of the noble gases.
11. Color all the lanthanides red.
12. Color all the actinides green.

13. Some elements are solids, liquids, or gases at room temperature. Outline the symbols blue for elements that are liquids at room temperature, red for elements that are gases at room temperature, and don't do anything for elements that are solid at room temperature.

14. Valence electrons: electrons that are in the outer most shell. Each family has the same amount of valence electrons. Write the number of valence electrons at the top of each family.