**Element Classes**

*Objective: Students know how to use the periodic table to identify metals, metalloids, nonmetals, halogens, noble gases, alkali metals, alkaline earth metals and transition metals.*

You will develop your own method of identifying each of the element groups or classes above, and you will include a key (or legend) on your table to assist others in identifying them as well.

Instructions:

1) Make a bold “staircase” to separate the metals from the nonmetals (see classroom periodic table)

The next questions will require you to use your book (**Chapter 5 Section 2**) and your previous knowledge.

2) Color code the following groups (families) –Similar to the periodic table on page140-141—You can choose your colors

Alkali metals

Alkaline earth metals

Halogens

Noble gases

3) Color code these element classes:

Transition metals

Metalloids (Semiconductors)

“Other” non-metals (other than halogens and noble gases)

“Other” metals (other than alkali metals, alkaline earth and transition)

4) Create a “color key” in the upper left corner of your table to show which colors you used for each group

5) Identify and label each of the following areas of the table (See page 139)

“*s*-block”

“*p*-block”

“*d*-block”

“*f*-block”

On your own paper:

6) List several properties/facts about each of the following (at least two for each)—**found in Chapter 5 Section 2**

1. Alkali metals
2. Alkaline-earth metals
3. Transition metals
4. Metalloids
5. Halogens
6. Nobel gases
7. Lanthanides
8. Actinides

7) Test Your Table

Compare your table with those produced by your class mates.

Attempt the “Element Classes” Review on the following page using only YOUR periodic table.

Element Classes

For each of the following, tell what class of elements it belongs to (alkali metals, alkaline earth metals, transition metals, metalloids, non metals, halogens, or noble gases)

1. Oxygen--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Chlorine--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Chromium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Germanium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Sulfur--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Iodine--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
7. Krypton--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
8. Potassium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Lithium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. Strontium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
11. Copper--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. Silicon--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. Nitrogen--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. Zirconium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
15. Neon--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
16. Iron --\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
17. Magnesium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
18. Carbon--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
19. Fluorine--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
20. Cesium--\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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