Part 1: Directions: Answer the questions with the proper information using your notes, book, and the periodic table.

1. Define a group or family on the Periodic table. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is a period on the Periodic table? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What is the symbol for the following elements.
   1. Magnesium \_\_\_\_\_\_\_\_\_\_\_\_\_ b. Potassium \_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Iron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d. Copper \_\_\_\_\_\_\_\_\_\_\_\_

1. What are the names of the following elements.

a. C \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. Cl \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Au \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d. Sr \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What period are the following elements in?

a. He \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. Ge \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Rb \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d. I \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What group are the following elements?

a. Sulfur \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. Ca \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Iodine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ d. Fe \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write the name of an atom with the following characteristics.

a. Halogen \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. Malleable \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. Alkali metal \_\_\_\_\_\_\_\_\_\_\_\_\_\_ d. Brittle \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

e. Dull \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ f. Alkaline Earth metal \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

g. Transition metal \_\_\_\_\_\_\_\_\_\_\_ h. Nobel gas \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Name two elements that are liquid at room temperature.
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 2: Directions: Use your Periodic table to complete the worksheet.**

1. What is the atomic symbol for silver?

2. What is the atomic mass of mercury?

3. Ni is the symbol for what element?

4. The element that has the atomic number 17 is.

5. List the symbols for two transition metals.

6. Cu, Ag, and Au are all in what group number ?

7. Name two noble gases.

8. Give the symbol for two halogens.

9. What is the symbol for element with atomic number 74?

10. What is the atomic mass of copper?

11. What is the last element in period 4?

For questions 12 - 15, label the following Key box as it should appear on your periodic table

6

C

Carbon

12.01

12. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

13. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

14. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

15. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Part 3: Directions:** Use a Periodic table to find the information asked for below:

1. What is the ion charge of :

Calcium \_\_\_\_

Rubidium \_\_\_\_

Nitrogen \_\_\_\_

3. How many valence electrons do the following have?

Calcium \_\_\_\_\_

Silicon \_\_\_\_\_

Copper \_\_\_\_\_

4. How many electrons do the following have?

Gold \_\_\_\_

Iron \_\_\_\_\_

Copper \_\_\_\_\_

Uranium \_\_\_\_\_

5. Does mercury have more protons and electrons than tin? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

6. Is mercury a heavier element than tin? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

7. Does potassium have more electrons than neon? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

8. Does hydrogen have more electrons than Uranium? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

9. Which has more protons, sulfur or iodine? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Write the symbols or the names for each of these elements:

Chlorine \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Zn \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Copper \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Helium \_\_\_\_\_\_\_\_\_\_\_\_\_

Potassium \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Iron \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Silver \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ P \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Na \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Ne \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Sn \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Mercury \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Name three elements that will readily lose two electrons to form a cation.
2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Name three elements that will readily gain one electron to form an anion.

a. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

b. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

c. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What charge will an ion have if it loses two electrons? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What charge will an ion have if it gains three electrons? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Name an element that may lose or gain four electrons. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. Name the most reactive nonmetal. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Name a very reactive alkali metal. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Rank the reactivity of the following elements from most reactive to the least reactive.

\_\_\_ Bromine, \_\_\_ Iodine, \_\_\_Chlorine, \_\_\_ Fluorine

1. Rank the reactivity of the following elements from the least reactive to the most reactive.

\_\_\_Strontium, \_\_\_Magnesium, \_\_\_Calcium, \_\_\_Beryllium

1. Rank the reactivity of the following elements from least reactive to most reactive.

\_\_\_Barium, \_\_\_Gallium, \_\_\_Boron, \_\_\_Cesium

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| **Part 4: Directions: Use the periodic table to fill in this chart.** | | | | | | | | | | |
|  | Element | Symbol | | Atomic Number | # of protons | # of electrons | Phase at room temperature | Rounded Atomic Mass | (show work) # of Neutrons | Classification |
| 1 | Oxygen | O | 8 | | 8 | 8 | gas | 16 | 16 - 8 = 8 | nonmetal |
| 2 | Helium |  |  | |  |  |  |  |  |  |
| 3 | Carbon |  |  | |  |  |  |  |  |  |
| 4 | Aluminum |  |  | |  |  |  |  |  |  |
| 5 | Calcium |  |  | |  |  |  |  |  |  |
| 6 | Sodium |  |  | |  |  |  |  |  |  |
| 7 | Potassium |  |  | |  |  |  |  |  |  |
| 8 | Nitrogen |  |  | |  |  |  |  |  |  |
| 9 | Silicon |  |  | |  |  |  |  |  |  |
| 10 | Iron |  |  | |  |  |  |  |  |  |
| 11 | Hydrogen |  |  | |  |  |  |  |  |  |
| 12 | Argon |  |  | |  |  |  |  |  |  |