Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Homeroom: \_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_ **3.7**

**Groups on the Periodic Table (SPI.9.9)**

|  |  |
| --- | --- |
| ***Key Point*** | ***Notes*** |
| **Metals vs.**  **Non-Metals vs. Metalloids** | Metals are found on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ side of the table, while the nonmetals are found on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ side of the table.     |  |  | | --- | --- | | **Metals** | **Non-metals** | | Are good \_\_\_\_\_\_\_\_\_\_\_\_\_of electricity and heat | Are bad conductors of electricity and heat | | Are shiny | Not shiny | | Are **\_\_\_\_\_\_\_\_\_\_\_\_** (can be beaten into thin sheets) | Are \_\_\_\_\_\_\_\_\_\_ (break easily) | | Are ductile (can be stretched into wire) | **\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_** |   ***Metalloids*** are elements that have properties that are **\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_** metals and nonmetals. |
| **Alkali Metals** | * Group \_\_\_ on the periodic table (but **does not** include \_\_\_\_\_\_\_\_\_\_\_) * React aggressively especially with halogens |
| **Alkaline Earth Metals** | * Group \_\_\_\_ elements in the periodic table * Fairly reactive |
| **Halogens** | * Group \_\_\_\_\_ on the periodic table * ***Highly \_\_\_\_\_\_\_\_\_\_\_\_*** |
| **Noble (Inert) Gases** | * Group 18 * ***Inert*** means “\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_” * The \_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_ of all elements on the periodic table * All \_\_\_\_\_\_\_\_\_\_ at room temperature |
| **So What?!** |  |

**“We Own This”**

*Work on your “Hard Work” Study Guide RAFT. You should complete the following:*

☐ Name and title your study guide. You can be creative. (example: Mr. C’s Periodic Table)

☐ Fill in the atomic number for all of the elements

☐ Create a “key” example indicated when the atomic number, chemical symbol, and atomic mass is located in each box on the periodic table.

☐ Color-code the metals, non-metals, and metalloids

☐ Write the atomic mass for elements 1-20

☐ Number the periods on your periodic table

☐ Number the groups on your periodic table

☐ Name the specific groups we have talked about in class (Alkali metals, Alkaline Earth metals, halogens, and noble gases)

☐ Create a key to help you calculate “atomic math”

☐ How do you calculate the # of protons?

☐ How do you calculate the # of electrons?

☐ How do you calculate the # of neutrons?

**“I Own This” (Independent Practice):**

1. The elements characterized as nonmetals are located in the periodic table at the

(A) far left; (B) bottom; (C) center; (D) top right.

2. Elements that have properties of both metals and nonmetals are called

(A) metalloids; (B) halogens; (C) alkali metals; (D) transition elements.

3. Which is the atomic number of an alkali metal?

(A) 10; (B) 11; (C) 12; (D) 13.

4. Which element is a halogen?

(A) iron; (B) nitrogen; (C) iodine; (D) neon.

5. Metals are found on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ side of the table, while the nonmetals are found on the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ side of the table.