Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Hour \_\_\_\_

All About Elements

Elements are pure substances. They are made of only one type of atom. They cannot be separated into other substances by physical or chemical means. All the known elements can be found in the Periodic Chart of the Elements. Each element has a symbol or shorthand way of writing the element. These symbols are used in the periodic chart and are used in chemical formulas and equations. Knowing the elements and their symbols is important in order to study Chemistry.

1. Name the symbols for Hydrogen \_\_\_\_\_\_    Carbon \_\_\_\_\_ and  Oxygen \_\_\_\_

2. All of these elements have as their symbol the \_\_\_\_\_\_ letter of their name.

3. Helium and Hydrogen both start with the same first letter. What will the symbol for Helium be? \_\_\_\_\_\_\_ What letters are used? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

4. What is the symbol for Calcium? \_\_\_\_\_\_ What letters are used? \_\_\_\_\_\_\_\_\_\_\_

5. What is the symbol for iron \_\_\_\_\_\_    and lead \_\_\_\_\_?

6. Why are the symbols for iron and lead different from their names?

7. What is the Latin name for iron? \_\_\_\_\_\_\_\_\_\_\_ lead? \_\_\_\_\_\_\_\_\_\_\_\_

Elements can be classified into 3 groups: Metals, metalloids, and non-metals.

8. Copper and silver are both \_\_\_\_\_\_\_\_. All metals have similar \_\_\_\_\_\_\_\_\_\_.

     The symbol for Copper is \_\_\_\_\_\_ and silver is \_\_\_\_\_\_.

9. One property of metals is that they can be hammered into sheets or different shapes. This means that metals are  \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

10. We can also twist or draw metals into \_\_\_\_\_\_\_\_.

11. Gold like other metals can be \_\_\_\_\_\_\_\_\_ and made into different shapes and

      sizes. The symbol for gold is \_\_\_\_\_\_\_\_.

12. Describe metalloids and write the name and symbol of 3 metalloids.

13. Describe non-metals and write the name and symbol of 3 non-metals.

14. Describe gases and write the name and symbol of 3 gases.

Element Symbols to Know (use correct upper and lower case letters)

Name                      Symbol                       Category             (metal, non-metal, metalloid)

|  |  |  |
| --- | --- | --- |
| Sodium |  |  |
| Potassium |  |  |
| Magnesium |  |  |
| Calcium |  |  |
| Iron |  |  |
| Cobalt |  |  |
| Nickel |  |  |
| Copper |  |  |
| Zinc |  |  |
| Silver |  |  |
| Gold |  |  |
| Mercury |  |  |
| Aluminum |  |  |
| Tin |  |  |
| Lead |  |  |
| Boron |  |  |
| Silicon |  |  |
| Hydrogen |  |  |
| Carbon |  |  |
| Nitrogen |  |  |
| Oxygen |  |  |
| Sulfur |  |  |
| Fluorine |  |  |
| Chlorine |  |  |
| Helium |  |  |
| Neon |  |  |
| Argon |  |  |