

## Unit: Atoms and Elements

### Mission C: The Periodic Table

#### Mini Lesson #1: Periodic Table

- **Periodic Table** = an organized \_\_\_\_\_ of \_\_\_\_\_ that explains and predicts \_\_\_\_\_ and \_\_\_\_\_ properties.
- It was discovered by a Russian scientist named Dmitri \_\_\_\_\_ in \_\_\_\_\_.
- He first put all the known elements in \_\_\_\_\_ based on their \_\_\_\_\_. He noticed that periodically properties would \_\_\_\_\_.
- Later, the periodic table was organized by \_\_\_\_\_ which is the number of \_\_\_\_\_ in the \_\_\_\_\_.
- This allowed \_\_\_\_\_ to be made about elements that were not even \_\_\_\_\_ yet.
- **Chemical Element** = a \_\_\_\_\_ substance consisting of one type of \_\_\_\_\_.
- **Atom** = a \_\_\_\_\_ found in an element. It is made up of the following:
  1. \_\_\_\_\_ (protons & neutrons)
  2. \_\_\_\_\_

#### A Closer Look at the Periodic Table

- **Metals** = \_\_\_\_\_ at room temperature (except \_\_\_\_\_). Good \_\_\_\_\_ of heat and electricity.
- **Non-Metals** = are \_\_\_\_\_ or \_\_\_\_\_ at room temperature except \_\_\_\_\_ as it is a liquid. \_\_\_\_\_ conductors of heat and electricity.
- **Metalloids** = can act both like \_\_\_\_\_ and \_\_\_\_\_.

#### Horizontal Rows:

- Known as \_\_\_\_\_
- Arrangement reflects the element's \_\_\_\_\_ number (it \_\_\_\_\_ through the periods).
- Described according to the \_\_\_\_\_.

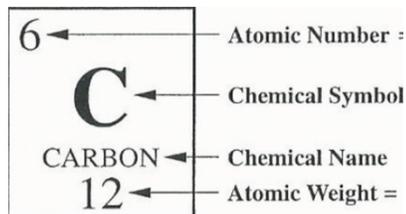
#### Vertical Columns:

- Known as \_\_\_\_\_ or \_\_\_\_\_.
- Most important method for \_\_\_\_\_ elements.
- Described by either a given \_\_\_\_\_ or a group \_\_\_\_\_.

## Elements

- Each of the \_\_\_\_\_ in the periodic table refers to an \_\_\_\_\_.
- A “chemical \_\_\_\_\_” is an abbreviation of the name of an \_\_\_\_\_.
- Some elements have 1 \_\_\_\_\_ others have two.
- Elements are always given a \_\_\_\_\_ letter at the beginning and a \_\_\_\_\_ case letter after that ( if it is an element with more than 1 letter).
- Examples:

### Mini Lesson #2: Periodic Table Information



- **Atomic Weight (rounded)** = the \_\_\_\_\_ mass of the atom's \_\_\_\_\_.  
Referred to as the \_\_\_\_\_ of the \_\_\_\_\_ and \_\_\_\_\_  
because electrons barely weigh anything, so not included in \_\_\_\_\_. Value is always \_\_\_\_\_.
- **Atomic Number** = the number of \_\_\_\_\_ found in an atom/element.