Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Homeroom: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ **2.4**

**Compounds (SPI.9.3)**

|  |  |
| --- | --- |
| ***Key Point*** | ***Notes*** |
| **Molecule** | * A molecule is formed when two SAME or different \_\_\_\_\_\_\_\_\_\_\_ combine |
| **Compound** | * **Compounds** are formed when two or more \_\_\_\_\_\_\_\_\_\_\_\_\_\_ elements *chemically* combine * For example when the elements sodium (Na) and chlorine (Cl) combine they form NaCl (Common salt) * Other examples: Ex: CO2, H2O * When elements are chemically combined, they form compounds that have *completely different \_\_\_\_\_\_\_\_\_\_\_\_\_\_* than the uncombined elements that make them up. |
| **Chemical Formula** | **A chemical formula** is:   * A combination of chemical \_\_\_\_\_\_\_\_\_\_\_\_ used to represent a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ (this means it represents a combination of two or more different chemically elements) * Contains the \_\_\_\_\_\_\_\_\_ of the elements for the compound. * If the compound contains more than one particular element, this quantity is indicated using a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ |
| **Subscript** | **A subscript** is a number placed to the lower \_\_\_\_\_\_\_\_\_ of a chemical symbol that is used to show how many atoms of each element are present.  H\_\_O CO\_\_\_ |
| **Drawing the Atoms in Elements and Compounds** | Drawing *Atoms*:  Atoms are represented by single \_\_\_\_\_\_\_\_\_  Drawing *Elements*:   * Circles of the same \_\_\_\_\_\_\_\_\_\_\_\_\_ represent atoms of the *same element*.     Drawing Molecules of *elements*:   * Molecules are represented by two or more circles   joined \_\_\_\_\_\_\_\_\_\_\_\_\_   * Molecules of the \_\_\_\_\_\_ element are represented   by two or more circles of the same **size** and  **color** joined together  Drawing *Compounds*:   * *Molecules of compounds* are represented by two or more circles of \_\_\_\_\_\_\_\_ sizes and colors joined together |
| **So What?!** | *Write a summary of what you learned today here and why it matters that you are the keeper of this knowledge:* |

**“We Own This” (Guided Practice):** *Write down examples from our white-board practice here!*

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

1. What is a compound?
2. How is a chemical formula different from a chemical symbol?
3. State if the following substances are elements or compounds.
   1. NaCl
   2. Ne
   3. CO
   4. C6H12O6
   5. Hg
   6. KNO3
   7. Ni
   8. Pb
   9. H3O
4. Draw the atoms of the compound HCl.
5. Create a Venn diagram of elements and compounds.