**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Block: \_\_\_\_\_**

**Lab: Identifying Elements, Compounds, and Mixtures**

**Directions**: Read the review chart below and answer the pre-lab questions. Then, rotate through the stations, identifying each substance as an element, compound, or mixture. If it is a mixture, be sure to include whether it is **homogeneous** or **heterogeneous**. Be sure to include 3 observations of the substance, and a meaningful REASON for your classification!

|  |  |  |
| --- | --- | --- |
| Element | Compound | Mixture |
| Made of ONE kind of  atom (found on the  periodic table)  Cannot be separated into any simpler form chemically or physically | Made of 2 or more kinds  of atoms chemically  combined in a certain  ratio (e.g. water molecule  is 2 hydrogens and one  oxygen atom)  2 or more elements or  compounds mixed  together physically | Not chemically combined!  Each part keeps its own  chemical identity  Can be heterogeneous  (different throughout) or  homogeneous (the same  throughout) |

**Pre-Lab Questions**

1. What is the difference between an atom and a compound?

2. How is a heterogeneous mixture different from a homogeneous mixture?

3. How is the way a mixture is combined DIFFERENT from how a compound is combined?

4. What is easier to separate, a mixture or a compound? Why?

5. Which can be found on the periodic table: elements, compounds or mixtures?

|  |  |  |  |
| --- | --- | --- | --- |
| **Station Number/**  **Description/**  **Observations** | **Identity of Substance** | **Description/**  **Observations** | **Classification**  **(Element,**  **Compound,**  **Mixture)**  **How do you know?** |
| **1** |  |  |  |
| **2** |  |  |  |
| **3** |  |  |  |
| **4** |  |  |  |
| **5** |  |  |  |
| **6** |  |  |  |
| **7** |  |  |  |
| **8** |  |  |  |