Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Homeroom:\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_ **2.6**

**Separating and Drawing Mixtures (SPI.9.4)**

|  |  |
| --- | --- |
| ***Key Point*** | ***Notes*** |
| **Separating Mixtures by Physical Means** | * Mixtures are PHYSICALLY *combined*, so they can be \_\_\_\_\_\_\_\_\_\_\_\_\_\_ *separated*. * Chemists separate mixtures by using differences in physical \_\_\_\_\_\_\_\_\_\_\_\_\_ of each part.   Separation by **density**:   * Based off **differences in density**, you can **separate \_\_\_\_\_\_\_\_\_\_\_** from each other * Example: Oil and water   Separation by **magnetism**:   * Based on **differences is magnetism**, you can separate magnetic objects from \_\_\_\_\_\_\_\_\_\_\_\_\_ objects * Ex: Rocks and Coins   Separation by **filtration**:   * Filtration separates a \_\_\_\_\_\_\_\_ from a liquid by filtering out the liquid. * Ex. sand and water mixture, spaghetti and water   Separation by **heating**:   * Based on differences **in boiling points**, you can separate dissolved **solids from liquids** * Ex: Boil salt water to allow the water to evaporate and you are left with salt * The lab tool that is used to heat a substance is a \_\_\_\_ \_\_\_\_\_\_\_\_\_\_   Identify the technique you would use to separate the following mixtures:   1. Remove rocks from an ocean water sample. 2. A solution of salt water. 3. A mixture of oil and water. 4. Isolate sugar from a sugar-water solution. 5. A mixture of paperclips and rice |
| **Drawing Elements** | * The particles shown here are all the same. * Each particle is an atom and all the atoms are of the \_\_\_\_\_\_\_ kind. |
| **Drawing Compounds** | * Two or more \_\_\_\_\_\_\_\_\_\_\_\_ atoms are shown (because compounds are made of two or more different elements) * The atoms are connected to show that there is a **chemical \_\_\_\_** between them |
| **Drawing Mixtures** | * Mixtures made up of \_\_\_\_\_ than one substance * The substances are **physically combined** so the atoms are **\_\_\_** connected |
| **Drawing**  **Molecular Models** | 1. An element   2. A different element  3. A mixture of these two elements  4. A compound of these same two elements |
| **So What?!** | *Write a summary of what you learned today here and why it matters to you:* |

“**We Own This” (Guided Practice):**

*Write down notes from today’s Jury Duty.*