**Classifying Matter Activity** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Partners: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |  |
| --- | --- | --- |
| Pure Substances (one type of particle) | |  |
| Element | Compound | Mixture |
| * One kind of atom * Found on the Periodic Table * Cannot be broken down into anything simpler by any means | * 2 or more elements chemically bound together * Can be separated with energy | * 2 or more pure substances NOT bound together * Can be separated based on physical properties * **Homogenous** – looks same throughout, same properties throughout, can’t distinguish different particles * **Heterogenous** – can see the different particles, each retaining their different properties. |

**Pre-Lab Questions**

1. What is the difference between an element and a compound?
2. How is a heterogenous mixture different from a homogenous substance?
3. How is a mixture different than a compound?
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?

Identify each substance as either 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 (eg. colour, lustre, texture, state) of each substance and a meaningful REASON for your observation.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Substance | Description/Observations | Classification | How do you know? |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| D |  |  |  |  |
| E |  |  |  |  |
| F |  |  |  |  |
| G |  |  |  |  |
| H |  |  |  |  |
| I |  |  |  |  |
| J |  |  |  |  |
| K |  |  |  |  |
| L |  |  |  |  |
| M |  |  |  |  |
| N |  |  |  |  |
| O |  |  |  |  |
| P |  |  |  |  |
| Q |  |  |  |  |
| R |  |  |  |  |
| S | Silver, Ag |  |  |  |

**Key**

A - tin

B - sand and Iron

C - aluminum

D - water

E – sulfur

F – sugar

G – glycerol/glycerine

H – CuSO4

I – Salt

J- corn and beans

K – Oil and water

L – flour and water

M – chalk and water

N – salt and water

O – CuSO4 and water

P – Air

Q – Carbon

R – copper

S - Silver