Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_\_\_ Ast: \_\_\_\_\_

**Classifying Matter Notes**

**Physical Science Honors**

1. **MATTER**
   1. What is “matter”?
   2. What is made of matter?
   3. What determines the type/kind of matter?
   4. What type of matter is made of specific types of atoms (specific # of protons)?
      * Why is this type of matter often called the most “basic” form of matter?
   5. What type of matter is made of two or more elements that have chemically combined?
      * What does it mean for these elements to have combined in a “specific ratio”?
   6. What type of matter exists when multiple elements or compounds are together without being chemically combined?

* Give a solid and a liquid example of this type of matter:

  1. Complete the flowchart below to show the relationship between the kids of matter:

1. **STATES OF MATTER**
2. What are particles doing constantly?
3. What determines the state of matter of a substance?

|  |  |  |  |
| --- | --- | --- | --- |
| **STATE/PHASE** | **SHAPE** | **VOLUME** | **PARTICLE MOTION** |
| **SOLID** |  |  |  |
| **LIQUID** |  |  |  |
| **GAS** |  |  |  |
| **PLASMA** |  |  |  |

1. What term do we use to describe the ability of a liquid to flow?
   1. How would you refer to substances that flow slowly, like honey?
   2. How would you refer to substances that flow easily, like water?
2. **PROPERTIES OF MATTER**
3. What are physical properties?
4. Generally speaking, how does the amount of the sample affect the physical properties of a substance?
5. What are chemical properties?
6. What is the only way that a chemical property can be observed?

EXAMPLES OF PHYSICAL PROPERTIES THAT CAN BE USED TO HELP IDENTIFY A SUBSTANCE

1. Melting Point
2. Boiling Point
3. Conductivity
   1. Conductors
   2. Insulators
4. Solubility
5. Malleability
6. Magnetism

EXAMPLES OF CHEMICAL PROPERTIES THAT CAN BE USED TO HELP IDENTIFY A SUBSTANCE

1. Flammability
2. Reactivity