**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ # \_\_\_\_\_**

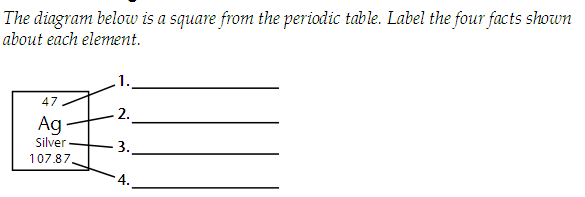
**Matter Test #1 – Study Guide**

**Vocabulary**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Matter** | **Mass** | **Volume** | **Atom** | **Molecule** |
| **Element** | **Nucleus** | **Proton** | **Neutron** | **Electron** |
| **Atomic Number** | **Atomic Mass** | **Solids** | **Liquids** | **Gases** |
| **Plasma** | **Evaporation** | **Condensation** | **Melting** | **Freezing** |

**Essential Questions**

1. List at least 5 things that are considered matter.
2. Describe why sound, heat, and light are not matter.
3. What is the difference between an atom and a molecule?



1. The diagram to the right is a square from the periodic   
    table. Label the four facts given on the element square.

|  |  |  |  |
| --- | --- | --- | --- |
| **Particle** | **Location in the Atom** | **Electrical Charge** | **A lot of Mass or A little?** |
| **Proton** |  |  |  |
| **Neutron** |  |  |  |
| **Electron** |  |  |  |

1. Draw an atomic model for the element COPPER. The nucleus is below. Draw the energy levels and electrons that you need.

Use your periodic tables to provide detailed information about each of the elements below.

7. Atomic Symbol **Ag** 8. Atomic Symbol **P**

Name of Element \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Name of Element \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Atomic Number \_\_\_\_\_\_\_ Atomic Number \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Atomic Mass \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Atomic Mass \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of Protons \_\_\_\_\_\_\_\_\_\_ Number of Protons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of Neutrons \_\_\_\_\_\_\_\_\_\_\_ Number of Neutrons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Number of Electrons \_\_\_\_\_\_\_\_\_\_\_ Number of Electrons \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. Elements in a(n) \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, or family, of the periodic table have similar characteristics.
2. Describe why it is so hard to separate a water drop and so easy to join water drops together.
3. Describe the different phases of matter in the table below either using words or diagrams.

|  |  |  |
| --- | --- | --- |
|  | **Arrangement of Atoms** | **Describe the motion of atoms.** |
| **Solids** |  |  |
| **Liquids** |  |  |
| **Gases** |  |  |

1. What happens to the SPEED of particles when heat is applied? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What happens to the SPEED of particles when heat is taken away? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Variable Practice:

The time it takes to run a kilometer depends on the amount of exercise a person gets.

ind. variable = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

dep. variable =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The higher the temperature of water, the faster an egg will cook.

ind. variable = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

dep. variable =\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_