Sci 8 **States of Matter** Name: \_\_\_\_\_\_\_\_\_\_\_\_\_

 Block: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is Kinetic Energy?
2. What are the three main points of the Kinetic Molecular Theory?
3. Complete the chart below describing states of matter:

|  |  |  |  |
| --- | --- | --- | --- |
|  | Solid | Liquid | Gas |
| Shape  |  |  | Not fixedTakes the shape of the container |
| Volume |  | Fixed volume |  |
| Mass |  |  | Definite |
| Space is between particles |  |  |  |
| Attractive forces between particles | strong |  |  |
| Arrangement of particles |  | Randomly arrangedParticles are touching, but able to move past one another |  |
| Movement of particles |  |  | Can move freely and quickly in all directions in the container |
| Example |  |  |  |
| Draw a picture of the particles |  |  |  |

**Changes of State**

1. Label the diagram below using the following terms: condensation, deposition, vaporization, melting , freezing, and sublimation.
2. Complete the following table by indicating the initial and final states of matter and whether kinetic energy is added or removed. Give an example of each of the changes of state.

|  |  |  |  |
| --- | --- | --- | --- |
| State Change | State of Matter | Kinetic Energy Added or Removed | Example |
|  | Initial State | Final State | Added |  |
| Melting |  |  |  |  |
| Freezing |  |  |  |  |
| Deposition |  |  |  |  |
| Sublimation |  |  |  |  |
| Vaporization |  |  |  |  |
| Condensation | Gas | Liquid |  | Water droplets form on a bathroom mirror after a hot shower |