**Changing States of Matter Notes**

The three states of matter are solids, liquids, and gasses.

|  |  |  |
| --- | --- | --- |
| **SOLIDS** | **LIQUIDS** | **GASES** |
| Keeps a fixed volume Keeps a fixed shape | Keeps a fixed volumeTakes shape of container | Takes volume and shape of container |
| Not easily compressedLittle free space between particles | Not easily compressed Little free space between particles | Easily compressedLots of free space between particles |
| Does not flow easilyRigid - particles jiggle/vibrate but do not slide past one anotherVibrate | Flows easilyParticles can move/slide past one another Vibrate and slide | Flows easilyParticles can move past one anotherMove at high speeds |

Some consider **plasma** a fourth state of matter.

**Plasma:**A plasma is when the gas is heated to a very high temperature.  Some of the electrons around the atoms are stripped away and the particles become positively charged ions!  Some examples where plasma is found include stars, plasma TVs, fluorescent lights, lightening, and the sun.

When a state of matter gains or loses heat it undergoes a change.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **CHANGE** | **FROM** | **TO** | **HEAT** | **EXAMPLES** |
| Melting |  |  |  |  |
| Freezing |  |  |  |  |
| Evaporation/ Vaporization |  |  |  |  |
| Condensation |  |  |  |  |
| Sublimation |  |  |  |  |
| Deposition |  |  |  |  |

Label each state of matter and each phase change represented by an arrow.

**Heating Curve of Water**

