Phase Changes

Matter can exist in three states, each with its own arrangement and movement of molecules. When heat (or energy) is added or taken away from an object, the arrangement and movement of the molecules changes. This causes a change of state.

**Directions**: The chart below is missing important information! Complete the chart by filling in the blanks.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Phase Change** | **Example** | **Process** | **Heat**  **(+ or - ?)** | **Motion of molecules**  **(Faster or slower?)** | **Placement of Molecules**  **(Close, medium, far apart?)** |
| \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_ | A lit candle/hot candle wax | Melting | + | Faster | Medium |
| Liquid to Solid |  |  | \_ |  | Close |
| \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_ |  | Condensation |  | Slower |  |
| Solid to Liquid | Chocolate bar on a hot day |  |  |  | Medium |
| \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_ | The disappearing water in the fishbowl | Evaporation |  |  |  |
| \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_ |  | Freezing |  | Slower |  |
| Gas to Liquid | Dew on the grass |  |  |  |  |
| \_\_\_\_\_\_\_ to \_\_\_\_\_\_\_ |  | Evaporation | + |  |  |