**Introduction to Heating and Cooling Curves**

**YOYO:** Draw out 8 particles in each box for the given phase. Fill in the arrows with words in the word box below. I highly recommend using a pencil in case you make a mistake.

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| --- |
| **Word Box**  Meting 🟓 Vaporization 🟓 Sublimation 🟓 Deposition 🟓 Freezing 🟓 Condensation 🟓 Removed 🟓 Added |

Heat must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to go from a solid to a gas

Gas

Liquid

Solid

Heat must be \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ to go from a gas to a solid

Heat vs. Temperature

* Heat, heat energy, or thermal energy
  + Energy associated with the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of particles
  + A form of energy that flows \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ two samples of matter because of their \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ in temperatures
  + Thermal energy transferred from a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that are in contact
* Temperature
  + A measure of the ­­­­­­­­­­­­­­\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ of the particles in a system
* Adding heat will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ a system’s temperature, while \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ heat will \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ the temperature
* A heating curve is a graph that shows the temperature of a substance plotted against the amount of energy.

**Heating Curve of Water**