

Heat + Temperature Change

$$Q = mc\Delta T$$

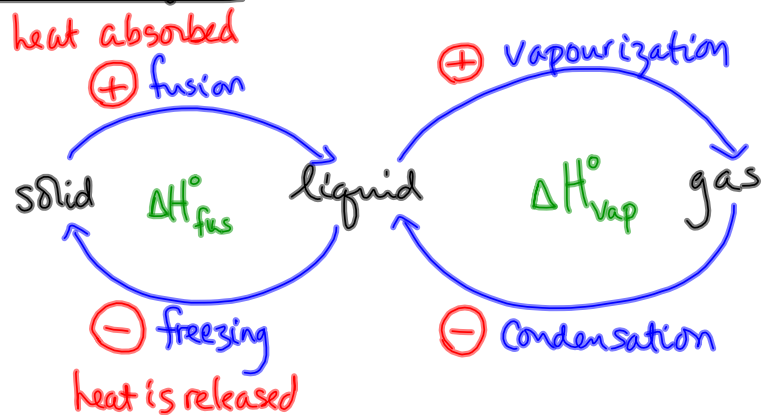
* $c = 4.18 \frac{\text{J}}{\text{g}\cdot^\circ\text{C}}$ for liquid water

If ΔT is +, then Q is + (heat is absorbed)

ΔT is -, then Q is - (heat is released)

$$\Delta T = T_f - T_i$$

Heat + Phase Changes



Water!

for fusion + freezing: $Q = m \Delta H_{fus}^\circ$ ($\Delta H_{fus}^\circ = 333 \frac{\text{J}}{\text{g}}$)

for vaporization + condensation: $Q = m \Delta H_{vap}^\circ$ ($\Delta H_{vap}^\circ = 2260 \frac{\text{J}}{\text{g}}$)