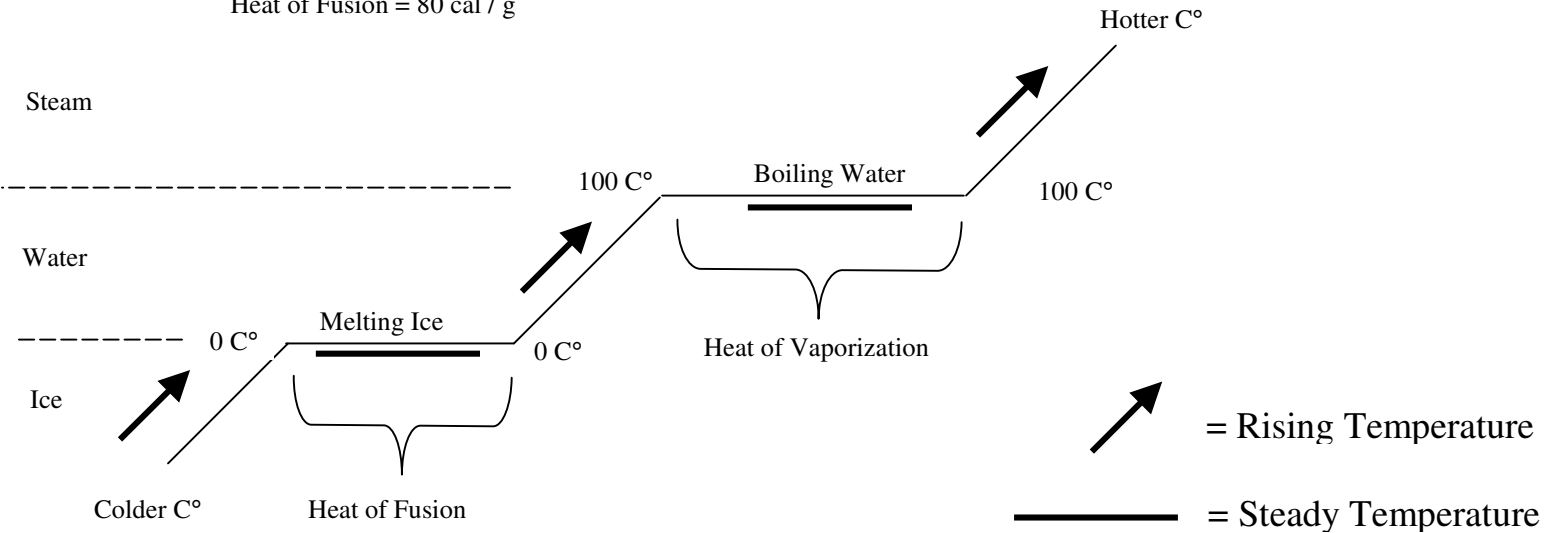


Specific Heat Worksheet

Specific Heat of Water = $1 \text{ cal / g / } ^\circ\text{C}$
 Specific Heat of Ice = $0.5 \text{ cal / g / } ^\circ\text{C}$
 Specific Heat of Steam = $0.48 \text{ cal / g / } ^\circ\text{C}$
 Heat of Vaporization = 540 cal / g
 Heat of Fusion = 80 cal / g



- 1) How many calories does it take to raise the temperature of 100 ml of water from $20 \text{ } ^\circ\text{C}$ to $80 \text{ } ^\circ\text{C}$?
- 2) How many calories does it take to raise the temperature of 50 g of Ice from $-20 \text{ } ^\circ\text{C}$ to $0 \text{ } ^\circ\text{C}$ and then melt it all?
- 3) How many calories does it take to turn 100 ml of water at $50 \text{ } ^\circ\text{C}$ into $150 \text{ } ^\circ\text{C}$ steam?
- 4) How many calories are released as 100 ml of water cools from $70 \text{ } ^\circ\text{C}$ to $5 \text{ } ^\circ\text{C}$?
- 5) What is the total number of calories required to convert 20 grams of ice at $-15 \text{ } ^\circ\text{C}$ to steam at $110 \text{ } ^\circ\text{C}$?