Specific Heat Worksheet

Specific Heat of Water = 1cal / g / C° Specific Heat of Ice = $0.5 \text{ cal / g / C}^{\circ}$ Specific Heat of Steam = $0.48 \text{ cal / g / C}^{\circ}$ Heat of Vaporization = 540 cal / gHeat of Fusion = 80 cal / gHotter C° Steam **Boiling Water** 100 C° 100 C° Water Melting Ice 0 C° 0 C° Heat of Vaporization = Rising Temperature Colder C° Heat of Fusion = Steady Temperature

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