

# PQ 13 Heat

Q

# Q1

- How much heat energy is needed to change 2.0 kg of ice at  $0^{\circ}\text{C}$  to water at  $0^{\circ}\text{C}$ ?

## Q2

- How much heat energy is needed to change 0.50 kg of water at 100°C to steam at 100°C?

# Q3

- How much heat does a refrigerator need to remove from 1.5 kg of water at 20.0 °C to make ice at 0°C?

# Q4

- You're in a restaurant with a glass of 100.0 grams of water at room temperature, 25 degrees Celsius, but you'd prefer ice water at 0 degrees Celsius. How much ice would you need?

## Q5

- An immersion heater has a power rating of 200 W. It is used to heat 0.2 kg of a material from 20°C to 65°C. The time taken to do this is 3 minutes. Calculate the specific heat capacity of the substance?