

Determining the specific heat capacity of a material

Introduction

This practical activity is intended to be carried out as an investigation in which you plan and implement work to demonstrate your investigative skills.

Aim

- To demonstrate investigative skills
- To research, plan and implement a practical activity
- To make quantitative observations
- To relate observations to research or theory

Intended class time

- 60 to 120 minutes

Equipment (per group)

- sample of material whose SHC is to be determined
- electric heater (low voltage)
- low voltage power supply
- voltmeter
- ammeter
- leads
- beaker
- kettle
- thermometer
- insulating material
- heatproof mat
- electronic balance

Health and safety

- Be aware of hot objects and liquids and take appropriate care.

Procedure

- Determine a strategy to enable you to determine the SHC of the material.
- Detail your plan.
- Obtain and record results.
- Calculate a value and evaluate your findings.

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