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GCSE Physics Energy P2

Energy Transfer By Heating

Assignment Questions

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P2: Energy transfer by heating

Q: What are the factors on which energy transfer by heating depends upon?

Q: What is specific heat capacity? Why we use storage heaters?

Q: Explain why mass of iron heats up faster than mass of aluminium.

Q: Calculate the energy needed to raise the temperature of 0.40 kg of aluminium from 25 °C to 40 °C. (Specific heat capacity of aluminium 900 J/kg °C)

Q: A copper tank of mass 25 kg contains 250 kg of water at 10 °C. Calculate the energy needed to heater the water and the tank to 65 °C. (Specific heat capacity of water 4200 J/kg°C, Specific heat capacity of copper 385 J/kg °C.)

Q: In the case of double-glazed windows why a plastic frame is better than a metal frame. State why vacuum is better than air in between the panes.

Q: Why cavity wall insulation is used?

Q: A hot water bottle made of rubber is filled with 0.50 kg of water. The temperature of water is 85°C. Calculate the temperature of hot water bottle after 160 500 J of energy is transferred during the night. (Specific heat capacity of water 4200 J/kg°C)