

P2 - Energy transfer by heating

<u>Question</u>	<u>Answer</u>
Define thermal conductivity	The ability of a material to transfer energy by heating.
Define a conductor	A material with a high thermal conductivity (it's good at transferring heat).
Define an insulator	A material with a low thermal conductivity (it's bad at transferring heat).
Define conduction	The transfer of energy through a material by the vibration of its atoms.
Define convection	The circulation of a fluid caused by increasing its thermal energy.
Define specific heat capacity	The amount of energy needed to raise the temperature of a 1kg substance by 1 °C.
Describe how loft insulation reduces heat loss	Made from fiberglass which has a low thermal conductivity. The material is mainly air, which stops conduction. The glass fibres stop convection.
Describe how cavity wall insulation reduces heat loss	Made from insulating foam. Contains air pockets to stop conduction.
Describe how double glazing reduces heat loss	Vacuum between two panes of glass. Reduces conduction and convection
Describe how aluminium foil behind a radiator reduces heat loss	Shiny surface reflects heat back into the room.
Give factors that affect how quickly a substance heats up	Mass, thermal energy applied, specific heat capacity.

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