

Transfer of Thermal Energy – 2023 June O Level 5054

1. June/2023/Paper_5054/11/No.17

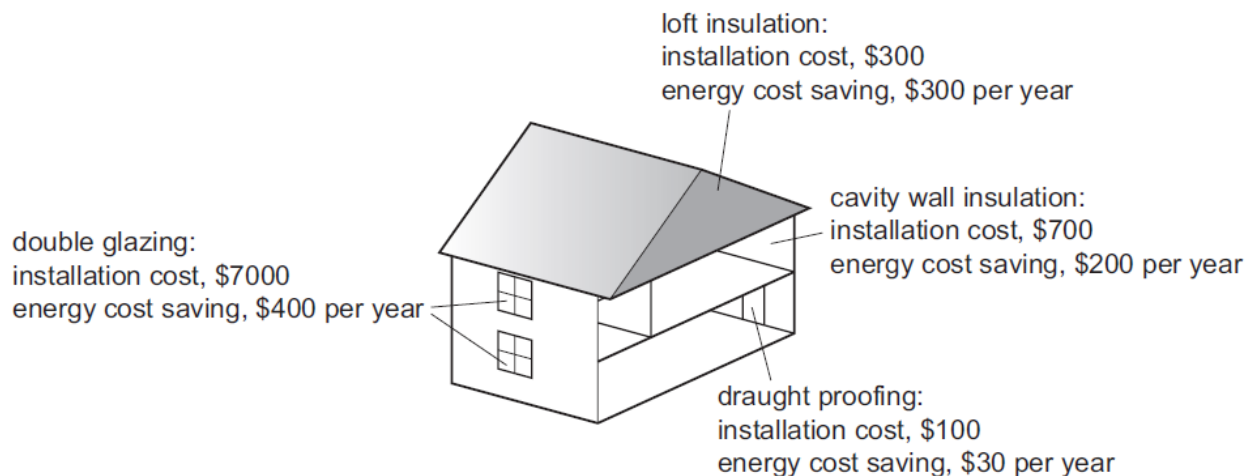
A cold solid is placed on top of a hot solid. Thermal energy is transferred from the hot solid to the cold one.

What is the explanation for this?

- A A hot solid expands, so its particles will move further apart.
- B Energy is transferred from one particle to the next.
- C Heat always rises.
- D Molecules are free to move randomly through the solids.

2. June/2023/Paper_5054/11/No.18

A house is to be thermally insulated to reduce thermal energy loss and reduce fuel costs.



Which type of thermal insulation pays back the cost of installation in the shortest time?

- A cavity wall insulation
- B double glazing
- C draught proofing
- D loft insulation

3. [June/2023/Paper_5054/12/No.17](#)

Which statement about copper explains why it is a better thermal conductor than glass?

- A Atomic vibration is passed on to neighbouring copper atoms slowly.
- B Atoms move through the copper and pass on kinetic energy.
- C There are density changes within the copper.
- D There are free electrons in the copper.

4. [June/2023/Paper_5054/12/No.18](#)

Which statement describes the transfer of thermal energy in a liquid by convection?

- A A decrease in its density causes the heated liquid to rise.
- B Free electrons carry energy large distances through the liquid.
- C Infrared radiation passes through the liquid and transfers energy.
- D Particles of the liquid vibrate and pass energy to neighbouring particles.