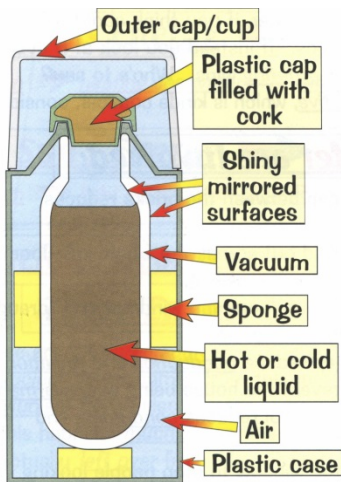


Insulation

- 1) The diagram below shows a thermos flask, complete the table by stating whether each part prevents heat loss by conduction, convection or radiation.



Part of thermos flask	Heat transfer(s) prevented
Cork filled plastic cap	
Shiny mirrored surfaces	
Vacuum (no particles)	
Sponge	
Air	
Plastic case + outer cap.	

- 2) Cavity wall insulation is placed in between the walls of houses. It is made of a foam like material that traps air.

a) What type of heat transfer does cavity wall insulation prevent?

b) Does cavity wall insulation have a high or low thermal conductivity? How do you know?

c) Give two ways cavity wall insulation is beneficial to the homeowner.

- 3) Houses can be made out of thick bales of straw which trap a lot of air. Houses can also be built out of brick – which has a high thermal conductivity. Compare each building material.

Advantage Straw: _____

Disadvantage Straw: _____

Advantage Brick: _____

Disadvantage Brick: _____