

Home Assignment:

Heat

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1. Why is a tea kettle provided with an ebonite handle?

Ans - Tea kettle is provided with an ebonite handle because ebonite being the insulator of the heat, does not pass heat from the utensils to our hand.

2. In Summer, ice is kept wrapped in a gunny bag. Explain the reason.

Ans - In Summer, the ice is kept wrapped in a gunny bag or it is covered with saw dust. The air filled in the fine pores of the gunny bag or saw dust, is the insulator of heat. The air does not allow heat from outside to pass through it to melting rapidly.

3. Why are quilts filled with fluffy cotton?

Ans - Quilts are filled with fluffy cotton. Air is trapped in the fine process of cotton. Cotton and air are the insulators of heat. They check heat from our body to escape and this keep us warm. They ~~are~~ The newly made quilts are warmer.

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than the old ones because in the old quilts, there is no air trapped in the cotton.

4. State the direction of heat transfer by way of convection.

Ans- By the process of convection, heat is always transferred vertically upwards. The reason is that the medium particles near the source and they start moving faster. As a result, the medium at this place becomes less dense so it rises up and the medium from above being denser, moves down to take its place. Thus, current ~~continues~~ ~~current~~ is set up in the medium, which is called a convection current. The current convection till entire medium acquires the same temperature.