

Transfer of Heat

ORAL QUESTIONS

A. Answer these questions orally.

1. Heat energy flows from a body at lower temperature to another at a higher temperature. True or false?
2. There are only two modes of transfer of heat—conduction and convection. True or false?
3. Which of these is the odd-one-out?
Steel, copper, wood, aluminium, silver.
4. Which of the following are bad conductors of heat?
(a) copper (b) iron (c) bakelite (d) plastic (e) thermocol
5. Is air a good or a bad conductor of heat?

B. Complete the paragraph given below using the words from the given word box.

colder, land, towards, sea, day, land breeze, convection,
upwards, sea breeze, lose, night, warmer, hot

During the _____ time, the _____ regions absorb more heat than _____ water, making the land _____. The air above the land also becomes hotter than the air above the oceans.

The _____ air from the land rises up and the _____ air from the sea, rushes towards the land to occupy the space left by the hot air. The _____ current from the sea to the land causes _____.

During the _____, the land regions _____ heat faster than sea water. The air above the sea is _____ than that above the land, Thus, warmer air above the sea rises _____. The colder air above the land rushes, the sea to occupy the space created. The convection current from the land to the sea causes _____.

CLASS TEST

E. Very short answer questions.

1. Name two good conductors of heat.

2. Name two bad conductors of heat.

3. Does convection occur in solids?

4. Give examples of two natural phenomena showing convection.

5. Which particles move up due to convection—hot or cold?

6. What is thermal radiation?

F. Short answer questions.

1. Why does a steaming cup of coffee gets cold, if left lying on a table?

2. Why does a bottle of chilled cold drink becomes warm when kept out of a refrigerator?

3. Why does the handle of a large metal spoon becomes hot if left in the cooking vessel for sometime?

4. Why does conduction not occur in liquids and gases?

5. Choose good conductors and poor conductors of heat from the following:
wood, ice, silver, gold, snow, air, rubber, plastic, copper, brass, wool, glass, paper, aluminium.

GOOD CONDUCTORS OF HEAT	POOR CONDUCTORS OF HEAT

G. Long answer questions.

1. How does conduction occur in solids?

2. How does convection occur in liquids?

3. What causes ocean currents?

4. On what factors does the amount of heat absorbed by an object depends on?

HOME ASSIGNMENT

H. Think and answer.

1. Seema prefers to wear light coloured clothes in summers. Why?

2. Rahul tried to heat water from the top as shown in the figure alongside.

(a) Will the water start boiling at the top?

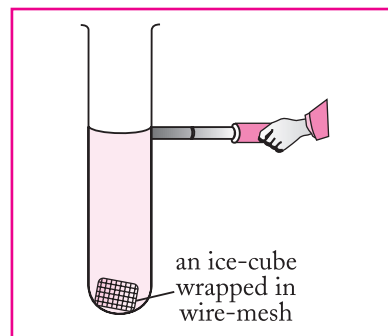
(b) Does the ice cube melt very easily?

(c) Why do you think the ice-cube has been wrapped in a wire mesh?

(d) Does the heat flow easily at the bottom of the test tube?

(e) What can you say about the conduction of heat by water?

3. Convection cannot take place in solids. Why?



WORKSHEET

I. Give reasons for the following.

1. Steel, copper and aluminium are used to make cooking utensils.

2. Bakelite is used to make handles of cooking utensils.

3. Thermocol is used to make ice-box to carry ice.

4. The room heaters are placed at or near the floors of the rooms.
