# Important Questions for CBSE Class 7 Science Chapter 4 - Heat

## Very Short Answer Questions:

Q1. Hotness of an object is measured using _____.

Ans: The hotness of an object is measured using a thermometer.

Q2. _____ is the reliable measure of hotness.

Ans: Temperature is a reliable measure of hotness.

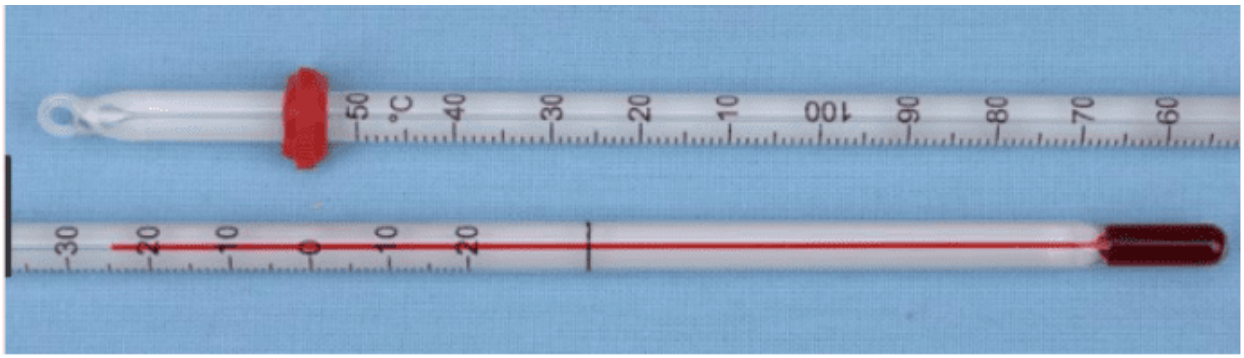
Q3. The thermometer shown in the figure is _____.

**Clinical Thermometer**

Ans: The thermometer shown in the figure is  clinical.

Clinical thermometers are devices that are used to measure the temperature of a human body.

4. Thermometer shown in the diagram is _____.

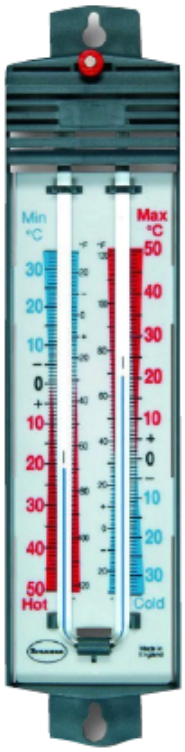



**Thermometer**

Ans: The thermometer shown in the diagram is laboratory.

A laboratory thermometer is a device that is used to measure temperatures in schools or other laboratories for scientific purposes.

5. The red colour shows _____ temperature and the blue colour shows_____ temperature.




**Given picture of Thermometer**

Ans: The red color shows maximum temperature and the blue color shows minimum temperature.

Q6. India has adopted the _____ scale for temperature measurement.

Ans: India has adopted the Celsius scale for temperature measurement.

Q7. The scale used to measure temperature earlier was the _____ scale.

Ans: The scale used to measure temperature earlier was the Fahrenheit scale.

Q8. The normal body temperature of the human body is _____.

Ans: The normal body temperature of the human body is 37oC.

Q9. The _____in the clinical thermometer prevents the mercury from falling on its own.

Ans: The kink in the clinical thermometer prevents the mercury from falling on its own.

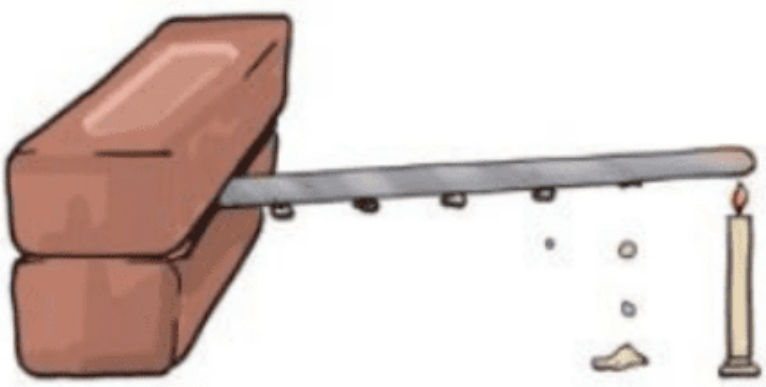
Q10. The human body temperature does not rise above _____.

Ans: The human body temperature does not rise above 42oC.

## Short Answer Questions:

Q1. What is conduction?

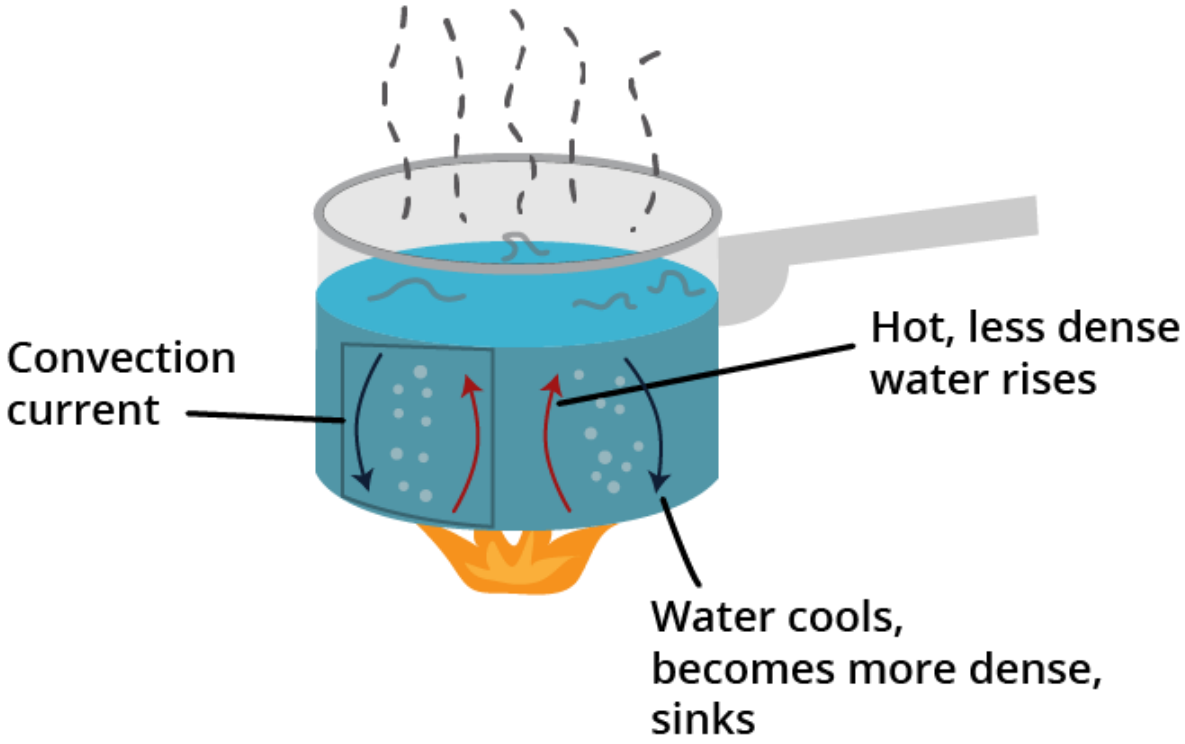
Ans: Conduction is the direct movement of heat from one point of an object to another by direct contact. Heat is transferred between materials that are in direct touch with one another. The heated object will transfer heat to every nearby object that comes into direct contact with it, and this process will continue as long as there are objects in contact. It is the most often used mode of transfer of heat in objects.



**Phenomenon of Conduction**

Q2. What is convection?

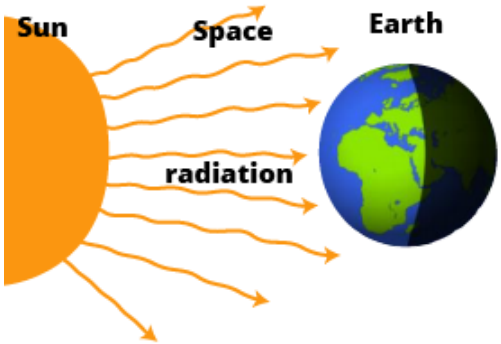
Ans: Convection is a heat transport method that occurs in liquids and gases. The fluid is heated unevenly in this manner. A portion of the fluid heats up, expands, and rises. Colder fluids rush in from the surrounding locations to fill the void left by the rising hot fluid. They are heated one by one, and the process is continued until the entire fluid is heated. Winds and storms are caused by the process of convection.




**Phenomenon of Convection**

Q3. What is radiation?

Ans: Radiation is the transfer of heat between objects that are not in direct touch. The two items may be solids or liquids, but they are not in contact. Heat is transferred from a distance when a heated object radiates heat into the environment. There is no need for a medium for radiation. Because it emits heat to the surroundings, a hot object cools down on its own.




**Phenomenon of Radiation**

Q4. What are insulators?

Ans: Insulators are poor heat-conducting materials. These materials make it difficult for heat to pass through them. As a result, insulators are utilized to construct handles for cooking pots and pans so that we may grasp them without getting burned. Insulators include materials such as plastic, wood, and rubber.

Q5. What are conductors?

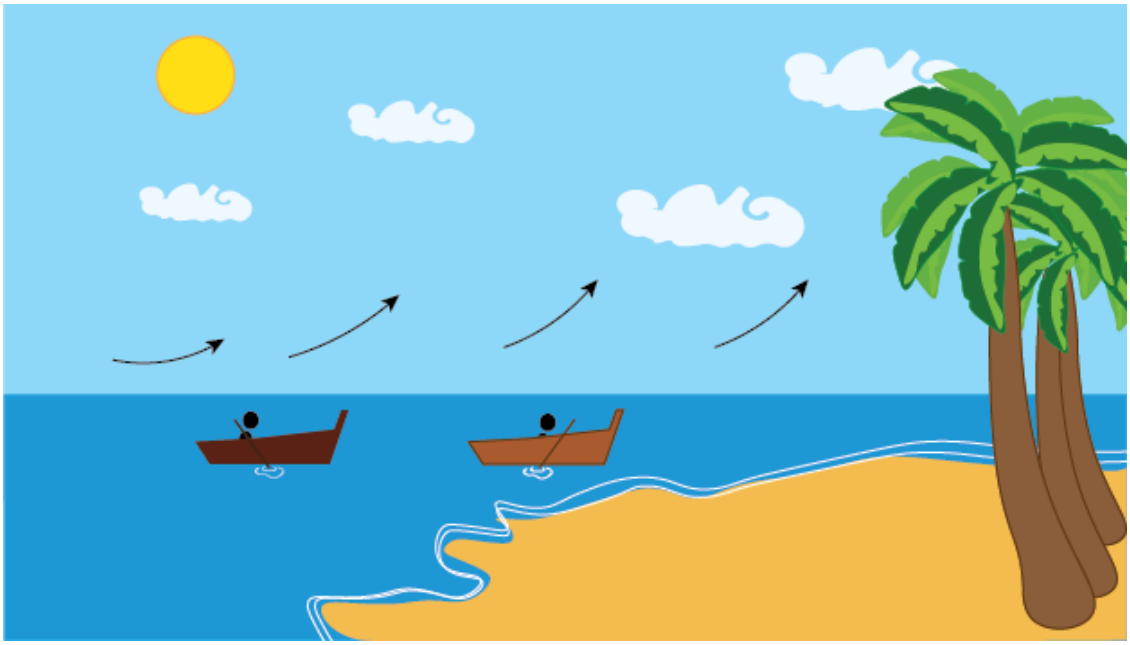
Ans: The materials that conduct heat are called conductors. Heat easily passes through these materials. Cooking utensils, for example, are made with conductors to ensure that the heat from the flame is quickly transferred to the food. Conductors can be made of aluminum, iron, or copper.

## Long Answer Questions:

Q1. What is a sea breeze?

Ans: A sea breeze is a local wind system that flows from the sea to land during the day. This is a common occurrence along the coast. The land heats up faster than the sea during the day. As a result, the air above the ground warms, expands, and rises. The cooler air from the sea rushes in to fill the void that has been created. The air from the land is moving towards

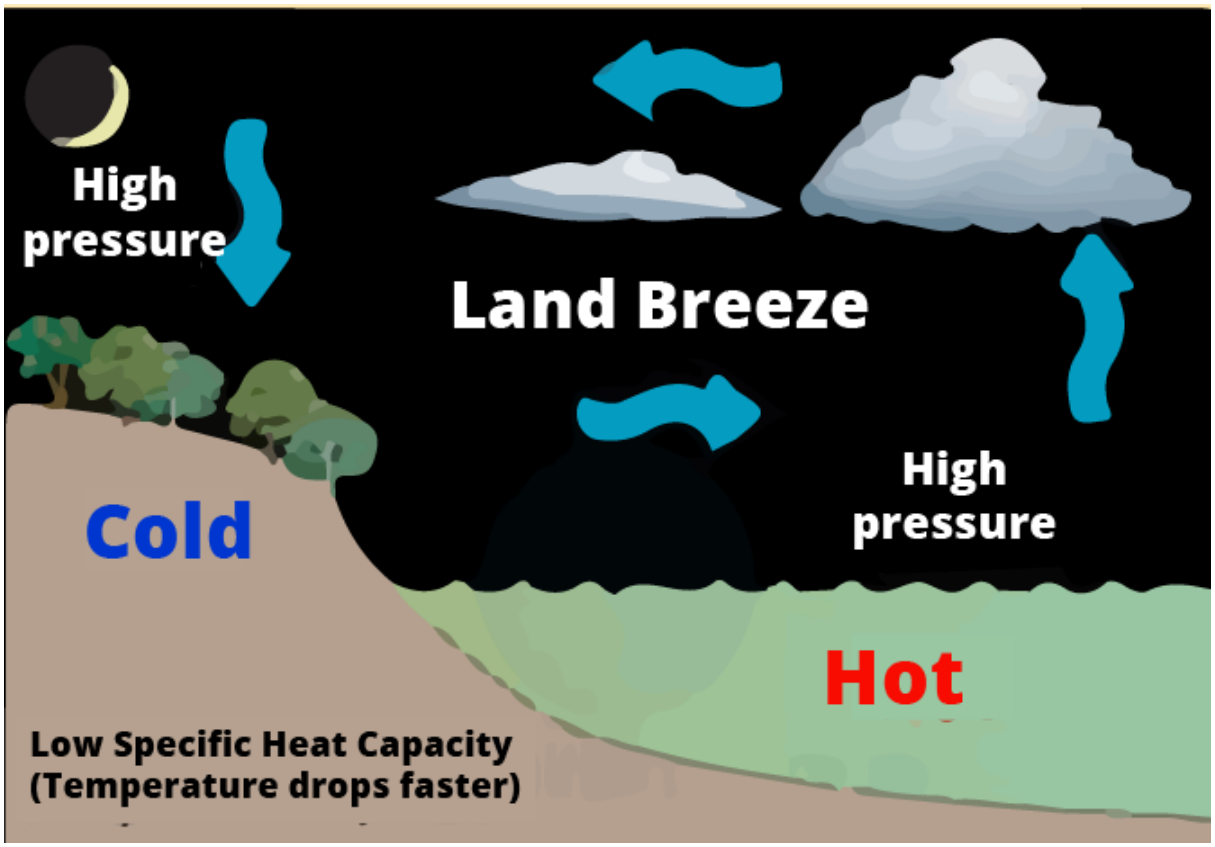
the sea. The sea breeze is the wind that blows from the sea towards the land during the day. Houses in coastal areas are built with windows that face the sea to capture the most amount of sea breeze. In the absence of a strong large-scale wind system, sea breezes alternate with land breezes along the coasts of oceans or large lakes during periods of intense daytime heating or nighttime cooling.



**Sea Breeze**

Q2. What is a land breeze?

Ans: Land breeze refers to the breeze that blows from the land towards the sea at night. They form at night when both seawater and land lose heat. Because the specific heat capacity of the land is much lower than that of seawater, the land loses heat energy quickly and cools faster than the sea. This is a common occurrence along the coast. The land cools much faster than the seawater at night. As a result, the air above the land cools off more quickly. Above the sea, the air remains warm, expands, and rises. Air from the ground rushes in to fill the void




Land Breeze

Q3. How does wearing woolen clothes keep us warm in winters?

Ans: Woollen clothing is good for the winter since it keeps us warm. This is because-

1. Wool conducts heat poorly, it does not conduct body heat.
2. Air trapped between the pores of woolen fibers is a poor heat conductor.

This also reduces the transfer of heat from the body to the environment.

We feel warm because our body heat is trapped within the layers of clothes. Also, having many layers of clothing is preferable to wearing a single thick woolen fabric. This is due to the fact that air is trapped between each layer, trapping more heat. As a result, we feel more comfortable.