NCERT – GRADE 7/8 CHEAT SHEET

HEAT TRANSFER IN NATURE

Feel the heat... See the change!

Pumpa

Based on NCERT (Curiosity) – Textbook of Science for Grade 7 | Chapter 12 | Reprint 2026–27 | Pages 169–182

What is Heat?

- Heat is a form of energy that flows from a hotter body to a colder body.
- It can change the temperature of a body.



Heat flows from hot to cold

Modes of Heat Transfer

Conduction

Heat transfer through direct contact.



A metal spoon gets hot in hot soup.

Convection

Heat transfer by movement of fluids (liquids or gases).



Hot water rises, cooler water sinks.

Radiation

Heat transfer in the form of heat waves.



Heat from the Sun reaches us.

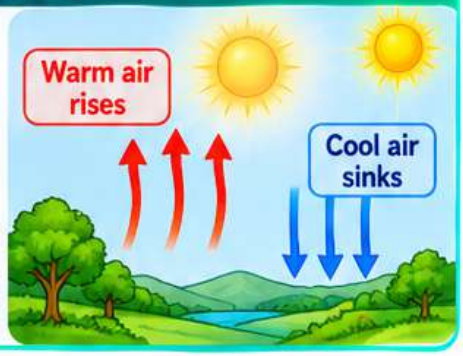
Conduction in Nature

- Heat moves through solids by conduction.
- Metals are good conductors of heat.
- **Example:** A metal pan gets hot quickly.



Convection in Nature

- Warm air rises and cood air sinks.
- This creates wind.
- In oceans, warm water rises and cooler water sinks, forming ocean currents.



Radiation in Nature

- Heat from the Sun reaches Earth through radiation.
- It helps plants grow and keeps us warm.



Everyday Examples

Warm Air



Hot air rises like a balloon.

Sea Breeze



Warm air over land rises, cool air from sea moves in.

Land Breese



Cool air over land moves towards sea at night.

Why Heat Transfer is Important?

- Helps in weather changes (e.g., formation of clouds and rain).
- Keeps our body at a steady temperature.
- Helps plants and animals survive.



Key Takeaways

- Heat flows from hot to cold.
- Heat can be transferred by conduction, convection and radiation.
- Convection happens in fluids.
- Radiation can travel through space.
- Heat transfer plays an important role in nature.

Heat moves... Life thrives!