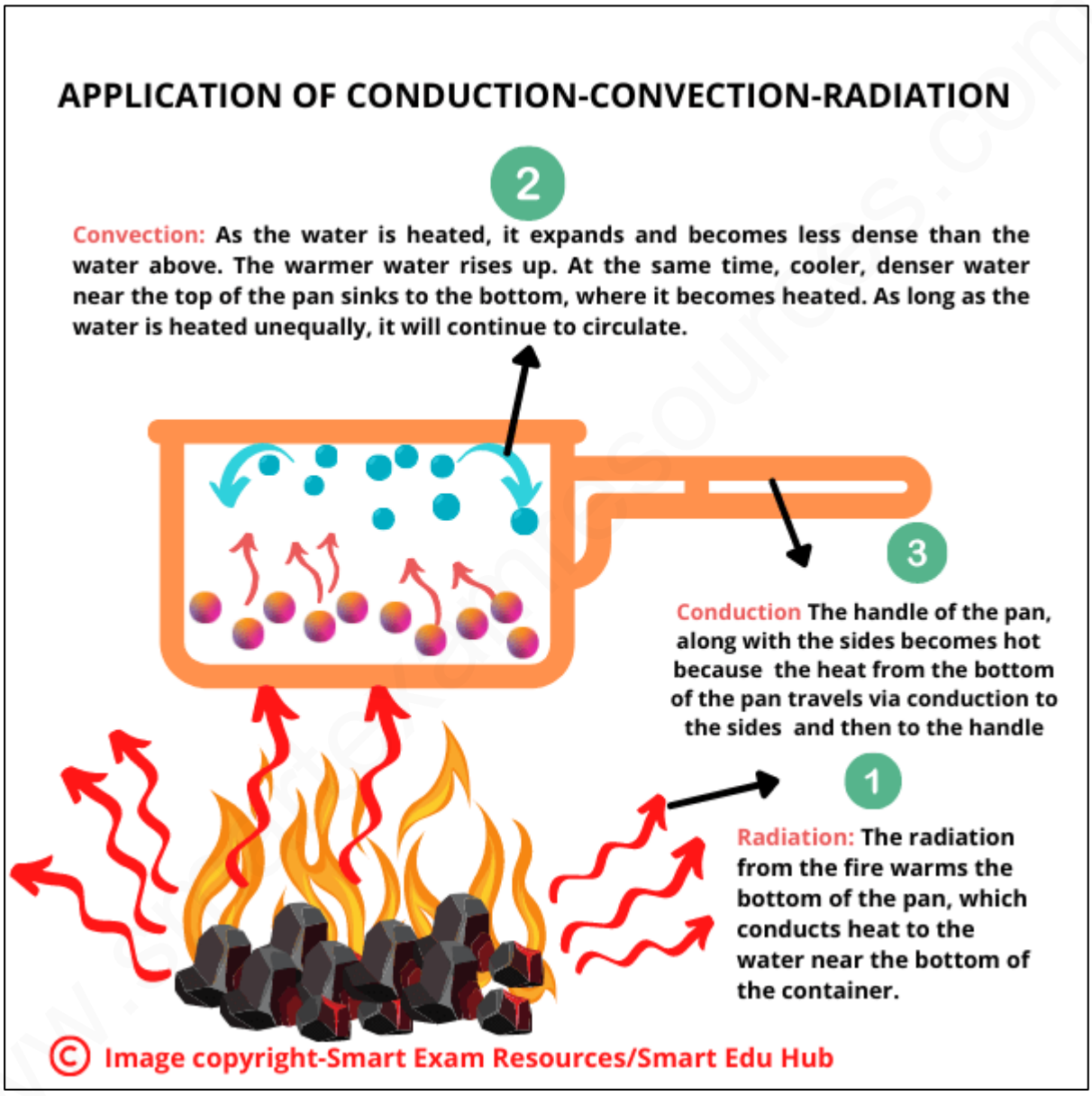
# Consequences of thermal energy transfer

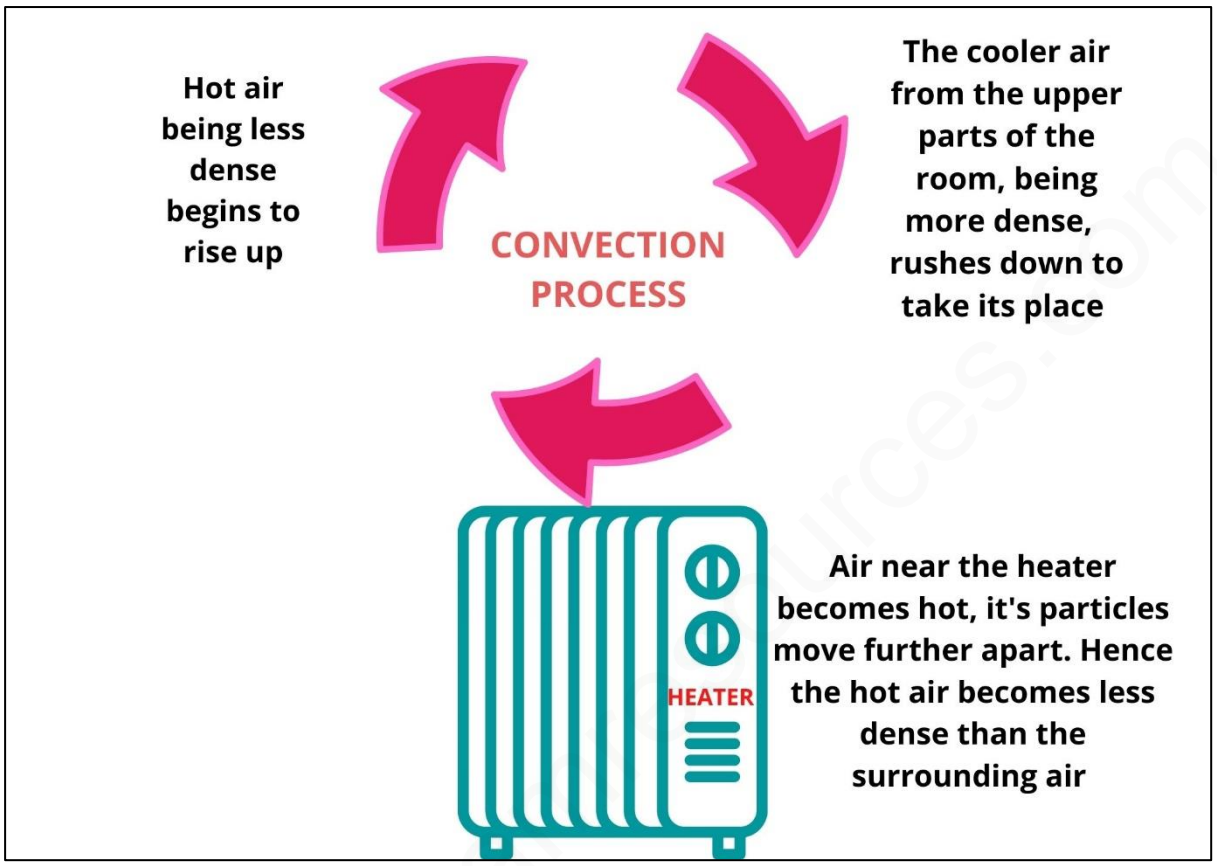
## EVERYDAY APPLICATIONS OF THERMAL ENERGY

## TRANSFER EXAMPLE:1 HEATING OF A PAN



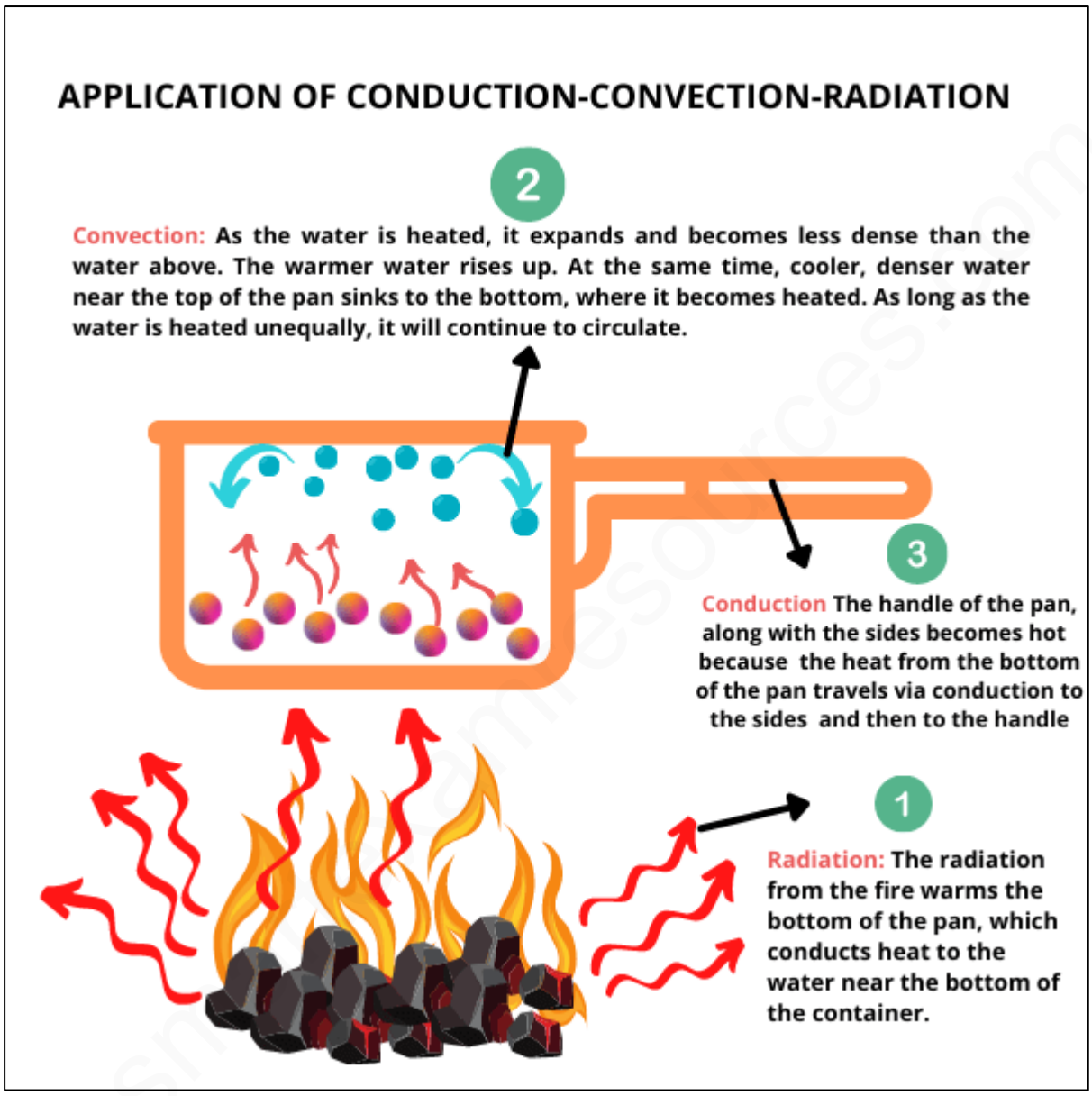
## EXAMPLE:2

## HEATING A ROOM BY CONVECTION



## EXAMPLE:3

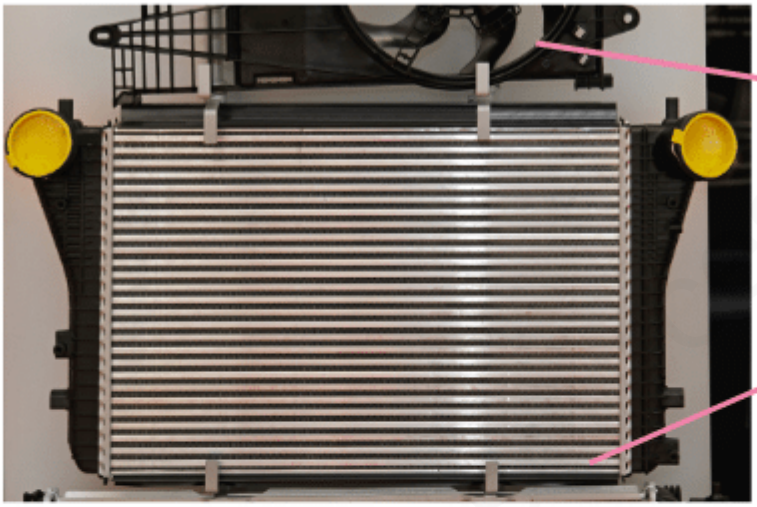
## A FIRE BURNING COAL



## EXAMPLE:4

## A RADIATOR IN A CAR

# HEAT EXCHANGE-CAR RADIATOR




- The coolant jacket surrounding the car engines gets heated due to the heat of the internal combustion engine through radiation and convection
- The radiator absorbs this heat when the hot coolant flows through it nd itself becomes hot through a process called as conduction .The radiator is positioned so as to enable it to exchange the coolant heat with the surroundings via radiation
- The radiator fan is positioned between the radiator and the engine. This fan increases the draught of air and thereby increases the heat transfer from the hot coolant to the surroundings. Thus convection currents are set up and the hot air is expelled out of the car and the coolant is cooled and returns back to the engine.