

Heat Transfer

Read each bubble and determine if the phrase is describing heat transfer by convection, radiation or conduction.

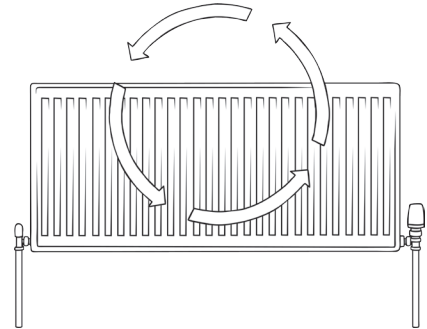
Colour the convection examples yellow, the radiation examples red and the conduction examples orange.

Boiling water, the cold water starts to sink and the warm water rises.

Holding a hot water bottle to keep you warm.

Touching a metal spoon that has been in boiling water.

Heating a pot on the stove.



Standing in the sun to keep warm.

Hot chocolate, the heat of the liquid makes the warm air rise.

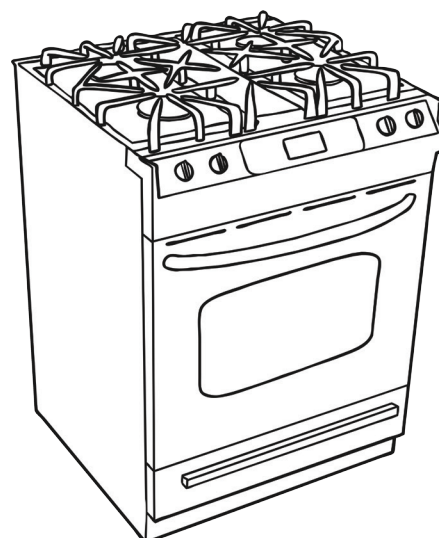
A radiant bathroom heat lamp.

Using an electric blanket to get warm.

Holding a hot cup of tea to warm your hands.

Warm
air rising
in a hot air
balloon.

Transfer of
heat through
currents in liquids
and gases.



Convection
oven.

The
ocean
currents.

Warming
hands by
placing them
near a fire.

Standing
near a light
bulb that had
been on for a
long time.

Transfer of
heat through
infrared rays.

Heat moves
from warmer to
colder areas in
solid objects.



The sand on the
beach getting hot
on a sunny day.

Heat Transfer Answers

Convection (yellow)

- Warm air rising in a hot air balloon.
- Convection oven.
- Boiling water, the cold water starts to sink and the warm water rises.
- Hot chocolate, the heat of the liquid makes the warm air rise.
- The ocean currents.
- Transfer of heat through currents in liquids and gases.

Radiation (red)

- Warming hands by placing them near a fire.
- Standing in the sun to keep warm.
- A radiant bathroom heat lamp.
- The sand on the beach getting hot on a sunny day.
- Standing near a light bulb that had been on for a long time.
- Transfer of heat through infrared rays.

Conduction (orange)

- Heating a pot on the stove.
- Using an electric blanket to get warm.
- Holding a hot cup of tea to warm your hands.
- Touching a metal spoon that has been in boiling water.
- Holding a hot water bottle to keep you warm.
- Heat moves from warmer to colder areas in solid objects.