

WELCOME TO THE ONLINE CLASS

SESSION NO: 3

CLASS: 4

SUBJECT: SCIENCE

CHAPTER NUMBER: 12

CHAPTER NAME: AIR, WATER AND WEATHER

SUB TOPIC: LAND BREEZE AND SEA BREEZE

CHANGING YOUR TOMORROW

LEARNING OBJECTIVE

To enable the learner to:

- understand the movement of breeze.
- learn about the land and sea breeze

RECAPITULATION

1. Moving air is called _____.
2. Fast and strong winds can cause a _____.
3. Air contains _____, smoke, dust and germs.
4. Does the direction of candle flame change as you tilt the candle? If not then give the reason.
5. The molecules in hot air are moving faster than the molecules in _____ air.

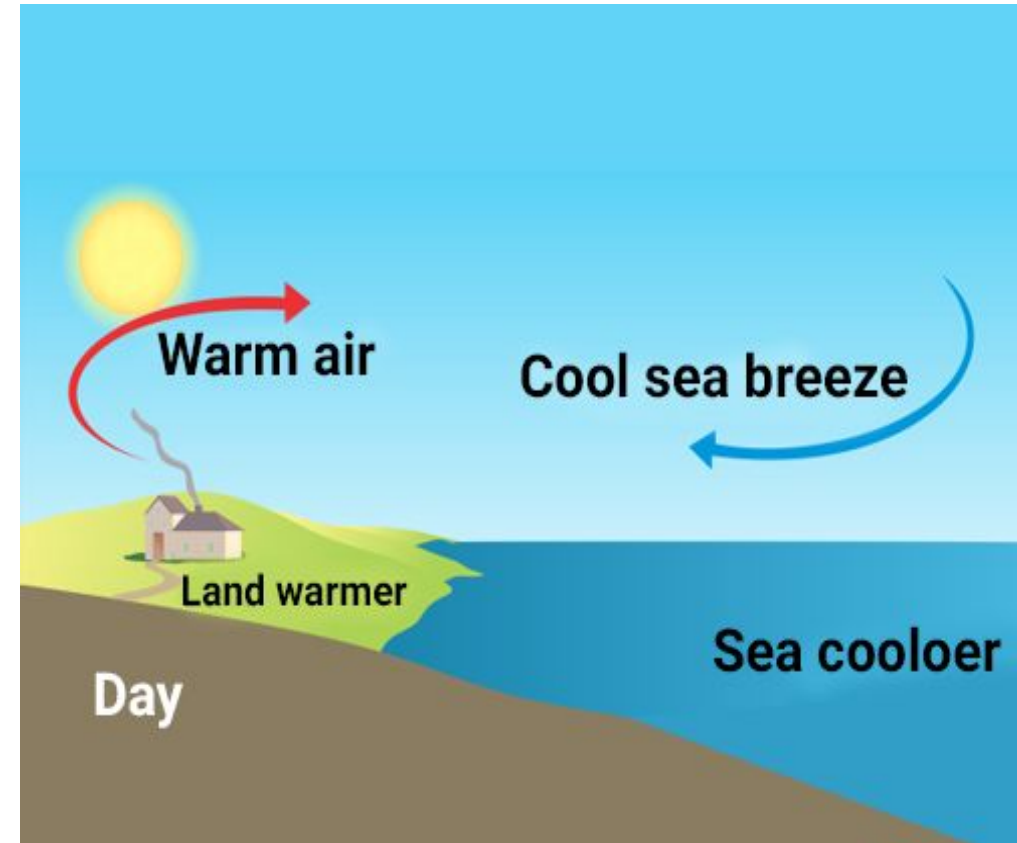
BREEZE

- Breeze is a very light wind which we can just feel, while wind blows harder and we can even hear it.



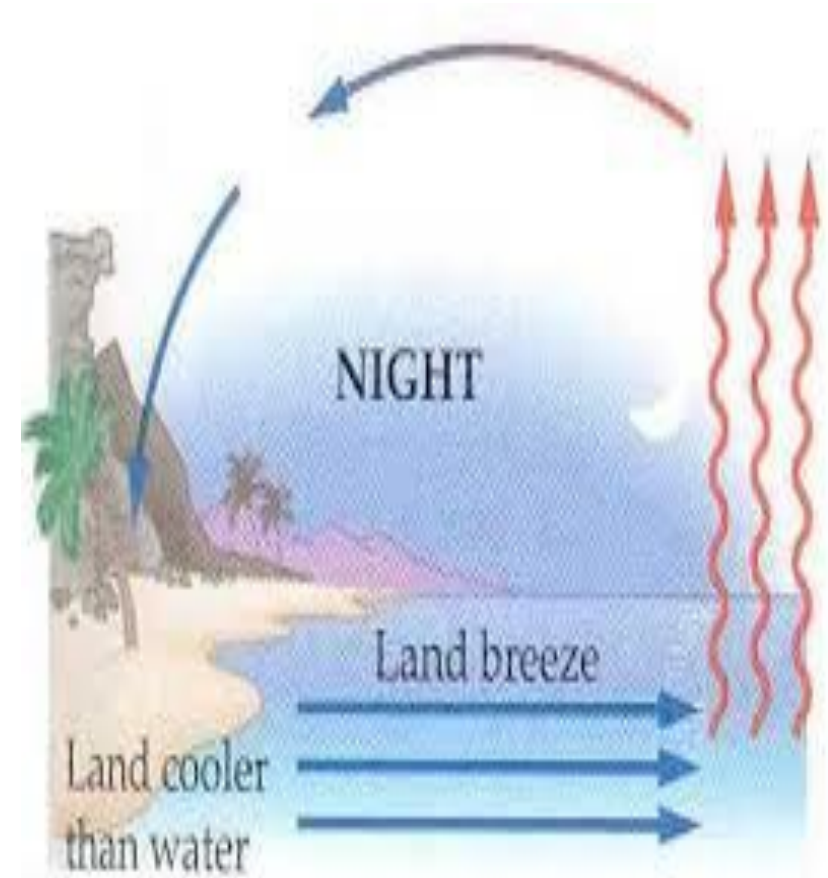
SEA BREEZE

- During the day, the land gets heated quickly but the sea does not.
- When the air above the hot land gets heated, it rises as hot air is lighter.
- Cool air over the sea rushes in to take its place.
- Thus, a cool breeze blows towards the land during the day.

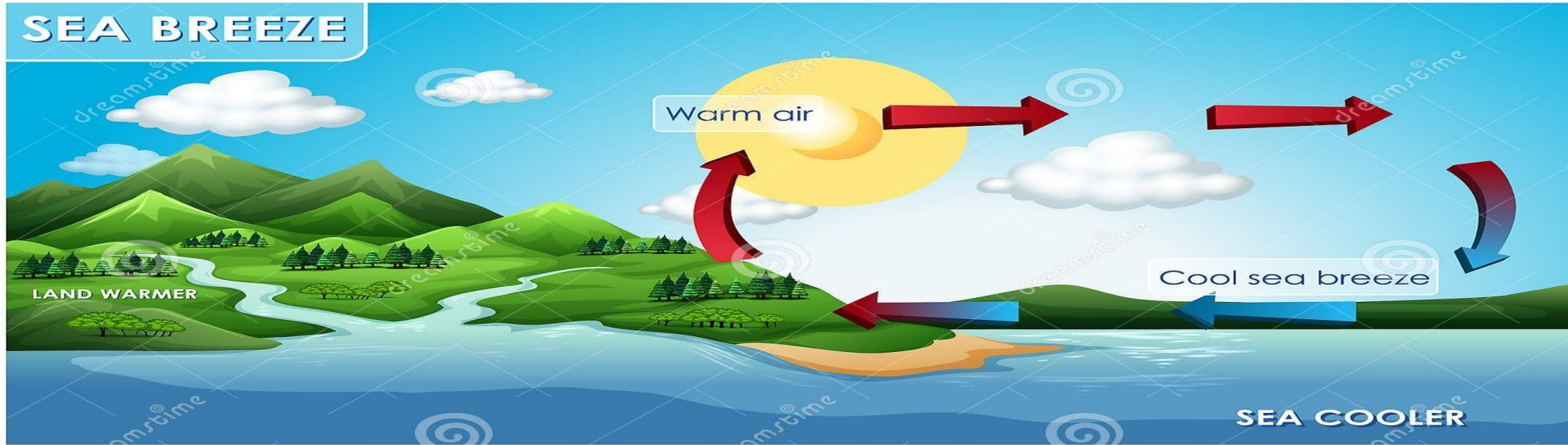


LAND BREEZE

- At night, the land cools down faster than the sea.
- So the sea is warmer than the land.
- The hot air above the sea rises.
- The cooler air from the land blows towards the sea to take its place.



SEA BREEZE DURING THE DAY AND LAND BREEZE AT NIGHT

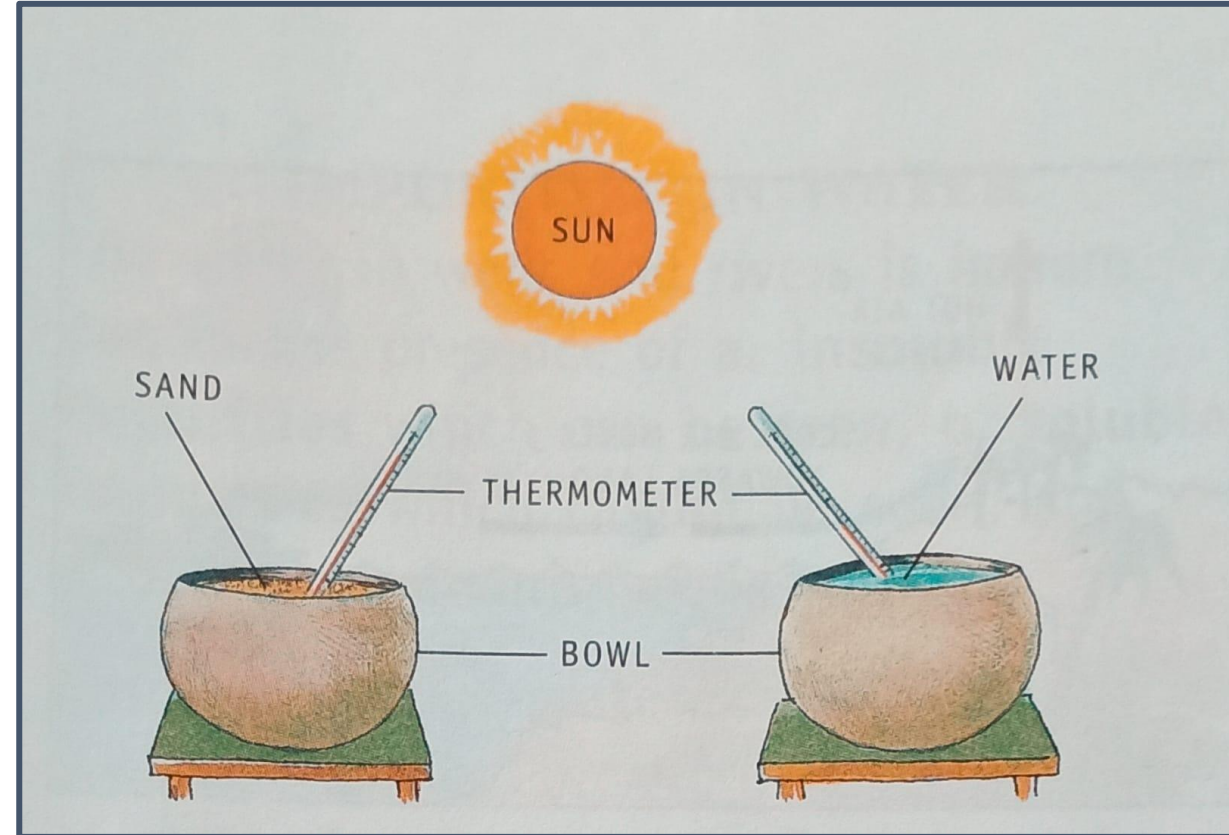


ACTIVITY 4 : Sand absorbs heat faster than water

- **Take two bowls. Fill sand in one and water in the other.**
- **Keep both out in the sun.**
- **After two hours, use a thermometer to measure the temperature inside each bowl.**
- **Note the observation in your notebook.**
- **Outdoors: temperature of the sand, the temperature of the water**
- **Indoors: temperature of sand, the temperature of the water**
- **In the given period, sand and water do not disturb absorb or reflect the same amount of heat.**

Which is warmer- sand or water?

- As you can see from the table, sand (or land) absorbs heat faster than water.
- It also cools down faster than water does.
- On the other hand, water absorbs and loses heat more slowly than land.



SUMMARY

- **Land gets heated faster than water. It cools down faster too.**
- **Sea breezes occur during hot, summer days because of the unequal heating rates of land and water.**
- **During the day, the land surface heats up faster than the water surface. As the warm air over the land is rising, the cooler air over the ocean is flowing over the land surface to replace the rising warm air.**

QUIZ!



1. Cool breeze blows towards the _____ during the day.

Ans: land

2. Air blowing towards the land from the sea is called _____.

Ans: sea breeze

3. Air blowing towards the sea from the land is called as _____.

Ans: land breeze

HOMework

- **Draw a labelled diagram of sea and land breeze in your notebook.**

LEARNING OUTCOME

The learner will be able to :

- **understand the movement of breeze.**
- **learn about the land and sea breeze**

THANKING YOU
ODM EDUCATIONAL GROUP