



মণিপুরৰ শিক্ষা বিভাগ (সংসদ)

DEPARTMENT OF EDUCATION (S)
Government of Manipur

CHAPTER- 8

WINDS, STORMS & CYCLONES

SOLUTIONS:

Exercises:

Q1. Fill the missing word in the blank spaces in the following statements.

- Wind is moving air.
- Winds are generated due to uneven heating on the earth.
- Near the earth's surface warm air rises up whereas cold air comes down.
- Air moves from a region of high pressure to a region of low pressure.

Q2. Suggest two methods to find out wind direction at a given place.

Answer:

- By using anemometer we can find out wind direction at a given place.
- By holding a strip of paper outside, the strip of paper will move along the direction of the wind.

Q3. State two experiences that made you think that air exerts pressure (other than those given in the text)

Answer: The two experiences are;

- When balloon is overfilled with air it burst due to excessive air pressure.
- The door often slammed whenever we open the window shows that air exerts pressure.

Q4. You want to buy a house. Would you like to buy a house having windows but no ventilators? Explain your answer.

Answer: No , I would not like to buy a house having windows but no ventilators because for maintaining air circulation ventilators are very important. As ventilators are at a higher height than windows , warm air being lighter than cold air ,rises up and go out through the ventilators.

Q5. Explain why holes are made in hanging banners and hoardings.

Answer: Wind can displace banner and hoardings as it exerts pressure. But if holes are made on them, air can easily pass through it. It reduces the air pressure on the banners and hoardings.

Q6. How will you help your neighbours in case cyclone approaches your village/town?

Answer: In case a cyclone approaches my village/ town I will help my neighbours in the following ways;

- a. I will help them in shifting their household goods , domestic animals, vehicles etc. To safer places.
- b. I will give them phone numbers of all emergency services like police, fire brigade , and medical centres.

Q7. What planning is required in advance to deal with situation created by a cyclone?

Answer: The planning required in advance to deal with a situation created by a cyclone areas follows;

- a. There should be a proper facility for prediction of the time and intensity of the cyclone.
- b. Cyclone warning message should be sent to the masses through radio, television and mobiles.
- c. Proper arrangement should be made for shifting of people and their domestic animals in safer areas.
- d. Clean water ,food and medicines should be stock for future use.

Q8. Which one of the following is unlikely to be affected by a cyclone.

- i. Chennai
- ii. Mangaluru
- iii. Amritsar
- iv. Puri

Answer: iii. Amritsar

Q9. Which of the given statements given below is correct?

- i. In winter the winds flows from land to the ocean.
- ii. In summer the winds flow from the land towards the ocean.
- iii. A cyclone is formed by a very high pressure system with very high speed winds revolving around it.
- iv. The coastline of India is not vulnerable to cyclones.

Answer: i. In winter the winds flow from land to the ocean.

EXTRA QUESTIONS AND ANSWERS

1. What is wind?

Answer: Wind is the movement of air.

2. What causes wind?

Answer: Wind is caused by the differences in the atmospheric pressure. When a difference in atmospheric pressure exist, air moves from the higher to the lower pressure area, resulting in winds of various speed.

3. What is the relationship between air pressure and wind speed?

Answer: The greater the difference in pressure the faster wind blows.

4. Why does smoke always rise up?

Answer: Smoke is hot air. Hot air occupies more space. When the same thing occupies more space , it becomes lighter. This is the reason that the smoke rises up.

5. What do you mean by the word monsoon?

Answer: The word monsoon is derived from the Arabic word “mausam” which means season. Monsoon is also a type of wind which contain moisture and laid the rain fall.

6. What is a cyclone?

Answer: A cyclone is a large scale air mass that rotates around a strong centre of low atmospheric pressure.

7. What is the centre of the cyclone called?

Answer: The centre of the cyclone is called the eye of the cyclone.

8. What precautions will you take if a storm is accompanied by lightning?

Answer: we will take the following precaution if a storm is accompanied by lightning

- i. We should not take shelter under an isolated tree but if we are in a forest we should take shelter under a small tree.
- ii. We should not use umbrella with a metallic end.
- iii. A car or a bus is a safe place to take shelter.
- iv. If we are in water, we should get out and go inside a building.

9. What are the different names of cyclone?

Answer: The different names of cyclone are

- i. Hurricane in the American continent
- ii. Typhoon in Phillipines and Japan

10. Draw a flowchart showing the phenomena that lead to the formation of clouds, falling rain and creations of storms and cyclone.

Answer:

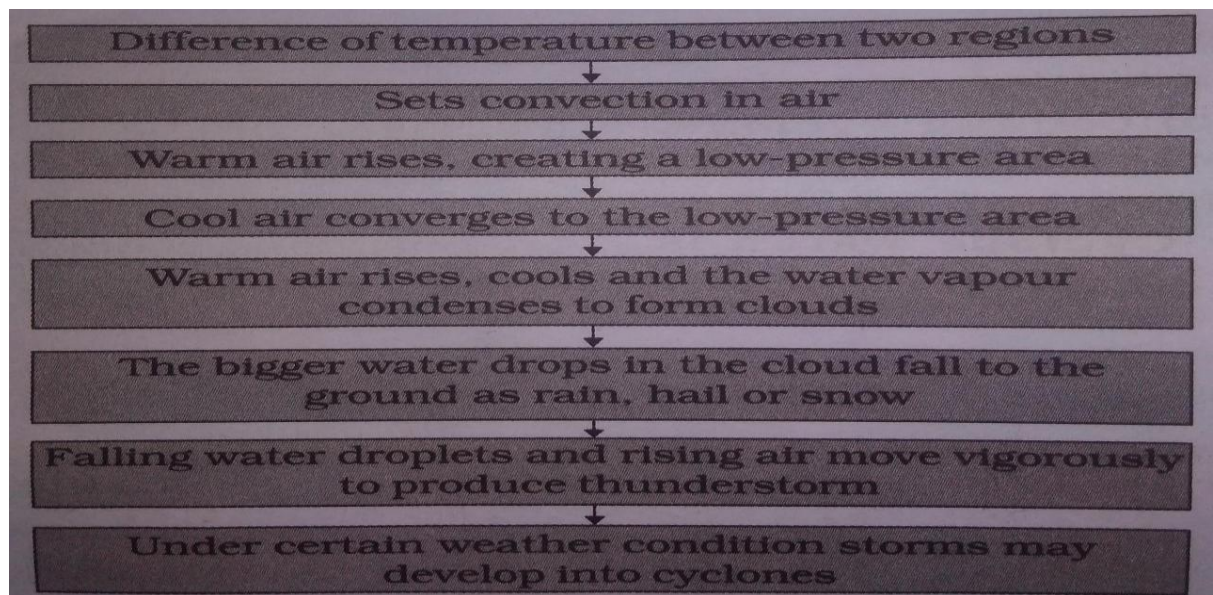


Fig. Flowchart showing the phenomenon that leads to the formation of clouds, falling rain and creations of storms and cyclone.

11. Name the instrument that measures speed and direction of the wind.

Answer: Anemometer.

