

Lesson- 3

The weather



Our earth is surrounded by air. This layer of air is known as atmosphere. Apart from the gases like nitrogen, oxygen, carbon-di-oxide etc, water vapour and dust are also present in the atmosphere. At different times, the condition of the atmosphere changes, such as- days are generally hot and nights are cool, Sometimes it rains, sometimes wind blows and sometimes there is storm and thunder. Such situations of the atmosphere create the weather.

Let's know about different types of weather-

The sky is clear when there is no cloud in the sky. Generally, although the weather remains little cool in the morning and evening, but the noon's are comparatively hot. This type of weather is called **clear weather**. It is easy to do all type of work during clear weather.



Clear weather



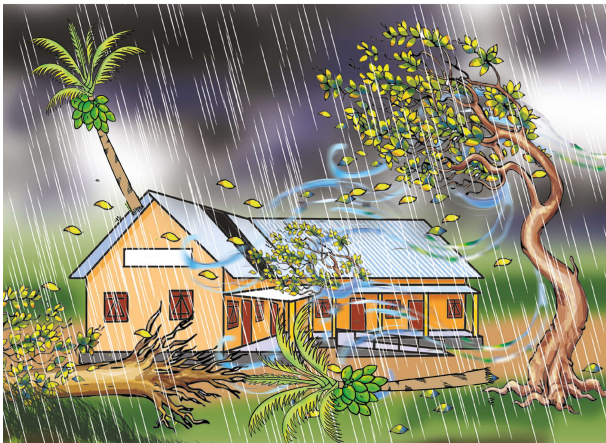
Cloudy weather

Generally, when there are dark clouds in the sky then it rains. Lightning and thunder may also come along with rainfall. The rain may be less or heavy. This type of weather is called **Rainy weather**.

Sometimes the sky is covered with dark clouds. This type of weather is a **cloudy weather**. You have seen the weather remain cloudy most of the time during summer.



Rainy weather



Storm

Sometimes wind blows strongly and destroys houses and uproots trees. Sometimes strong wind is accompanied by lightning and thunder along with heavy rainfall. This type of strong wind is known as **storm**.

Sometimes it is seen that there is no rain for many days. As a result, the weather becomes dry. The ground forms cracks at different places. This is **dry weather or drought**.

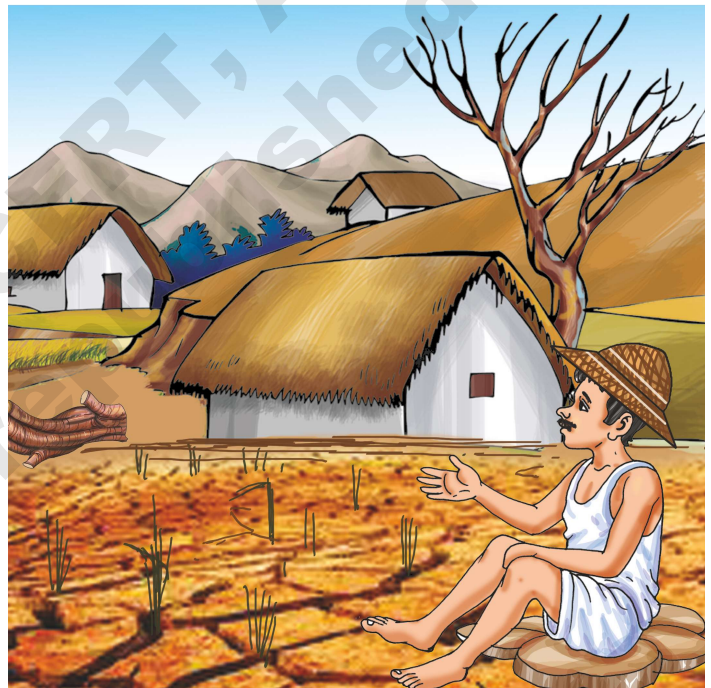
Look at the given picture. Cracks have formed in the ground due to lack of rain.

Think and write-

- What are the difficulties you may face in this type of weather? What are the problems a farmer may face?

Let us discuss in groups and write the answers-

- Why should we take shelter inside our house when it rains along with thunder and lightning?
- What type of problems do we face due to incessant rainfall?
- Why does the weather go dry when there is no rainfall for several days?
- What type of difficulties do we face during storm?



Dry weather

The weather does not always remain the same. Even in a single day there may be changes in the weather. Sometimes the weather is very hot and uncomfortable and sometimes cool breeze makes the weather cool and soothing. Again, sometimes heavy rain blocks roads and hampers communication. Sometimes very strong wind destroys our houses, uproots trees and disconnects electricity. Thus, we see a frequent change of weather.

Do you know why does weather change? Weather depends on atmospheric temperature, pressure, speed and direction of wind, amount of rainfall, presence of cloud, amount of water vapour in the air, etc. These are the factors of weather. The differences in these factors causes change in weather.

Think and write-

Condition of weather	Related factors of weather
Today the sun is shining brightly The weather is cloudy The storm has began Rivers are over flowed with water	

Do you know that, the season changes as a result of the earth moving around the sun. Weather changes with the changes of season. We can see the following types of weather in Assam in accordance to the season-

- The weather is hot during summer. Sometimes there is heavy rainfall. The Assamese months of 'Jeth' and 'Aahar' are considered as the summer season.
- There is heavy rainfall during the monsoon season. Rivers, canals and pits get flooded with water. This season continues throughout the Assamese months of 'Sawan' and 'Bhada'.
- During Autumn, in the Assamese months of 'Aahin' and 'Kati', the weather is clear and pleasant. This period is neither very hot nor very cold.
- The pre-winter season (Hemanta) is seen during the Assamese months of 'Aaghun' and 'Pooh'. The intensity of cold starts to increase during this period and dew drop, fog etc. starts to form in.
- The winter is very cold. The winter season can be seen during the Assamese months of 'Magh' and 'Phagun'. The weather becomes very dry and dusty due to scarcity of rainfall.
- The cold decreases during spring and the weather gradually changes towards summer. There is light rainfall in this season during the Assamese months of 'Chot' and 'Bohag'. Therefore, new leaves appear on the trees. Bohag Bihu is celebrated at this time in Assam.

We experience six seasons in our country: summer, monsoon, autumn, pre-winter, winter and spring respectively.

Our dress, food and style of living are different according to the weather-

It is good to wear dresses according to the weather. In summer, light cotton clothes are very much comfortable. We sweat more during the summer season. Wearing cotton clothes during summer helps to absorb our sweat easily. Cotton clothes can easily absorb water and they are quite airy too. The sweat is not absorbed by clothes made-up of artificial or synthetic fibres such as polyester, nylon, etc. and they may cause itching, prickly heat, etc. in our body.

To get rid of summer-heat we use electric fan and hand-fan. Sometimes we cool ourselves by sitting under the shade of big trees. In summer we eat fruits like mango, jack fruit and like to eat curd, sour curry (tenga anja) etc. Black clothes have more capacity to absorb heat from the sun. On the other hand, white clothes have the least capacity to absorb heat. So, we should wear white or light coloured clothes during summer.

We wear warm clothes in winter. We put on blankets and quilts during nights. To get rid of cold we sit beside a fire and make ourselves feel warm and cozy. Generally we wear woollen-clothes during winter. The Endi clothes produced in Assam is generally used in winter.

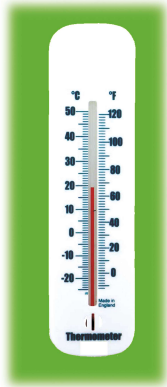
- Write the name of the clothes that you wear during the summer season and the winter season.

Dress worn during summer	Dress worn during winter

Discuss in groups and say-

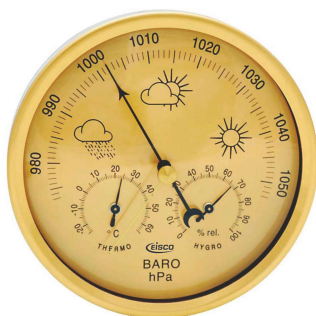
- Why does the water dry up in ponds and lakes during the winters?
- What can we do to prevent ourselves from prickly heat and itching during the summers?

We can know about the weather before hand from the radio, television and internet. This prediction is known as weather forecast. The meteorological centre gives us various weather related information. They use different kinds of equipments to get these information. Come let us get introduced to some such equipments-



Thermometer

Equipment for measuring atmospheric temperature



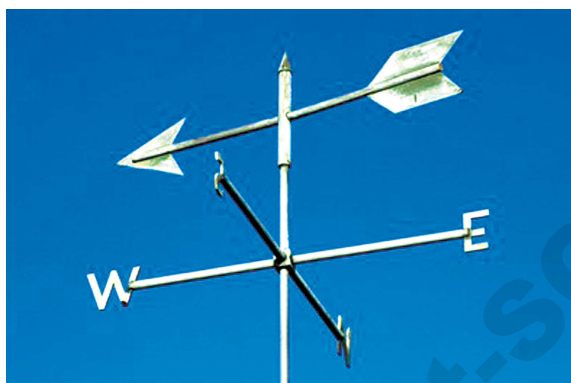
Barometer

Equipment for measuring pressure in the air



Rain gauge

Equipment for measuring the amount of rainfall



Wind vane

Equipment for measuring the direction of wind



Anemometer

Equipment for measuring the speed of wind



Windsocks

Equipment for determining the speed and direction of wind



Hygrometer

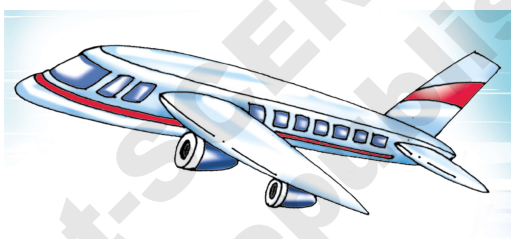
Equipment for measuring the amount of water vapour in the atmosphere

These information are of great help to the farmers, sailors, fishermen, mountaineers, pilots, etc. Nowadays, artificial satellites are used specially to get information of the weather.

The Meteorological Department of Government of India prepares and transmits the weather forecast report for the country. The weather forecast is also broadcast through the newspapers, radio, television and internet.

➤ **Think and write how the forecast of weather help the following persons-**

- Farmer:
- Sailor:
- Pilot:
- Fisherman:
- Mountaineer:



Although the weather changes generally because of natural reasons, but some activities of human beings against the nature also influence the weather. The amount of rainfall has decreased due to excessive cutting of trees. The atmospheric temperature has also risen significantly due to the discharge of carbon-di-oxide from industries and vehicles. To learn more about all these, you can discuss with your teachers and elders. You can also learn more by reading about them in books, magazines and newspapers.

Exercise

1. Write the answer-
 - a) What do you mean by weather?
 - b) How many seasons are there and what are they?
 - c) What is 'weather forecasting'?
 - d) Name three instruments that give information on weather.
 - e) Which department prepares and broadcast weather forecast report for the country?
2. Match 'A' with coloum 'B'

Part A	Part B
Atmospheric temperature	Rain gauge
Amount of water vapour in the air	Thermometer
Amount of rainfall	Anemometer
Speed of wind	Hygrometer

3. Fill in the blanks-
 - a) Wearing light _____ clothes is very comfortable in the summers.
 - b) _____ is an instrument used to measure the direction of wind.
 - c) Wind sock is used to measure _____ and _____ of wind.
 - d) Storm is accompanied by _____ and thunder.
4. What are the media for weather forecasting?
5. Write short notes on-
 - (a) Rain gauge
 - (b) Artificial satellite
 - (c) Meteorological centre
 - (d) Dry weather
 - (e) Clear weather.
6. How should the clothing be according to the weather?
7. What are the activities in which weather forecasting helps?
8. What are the names of the factors of weather?

