

DATE: 24 SEP 2020

SUBJECT : SCIENCE

CHAPTER-8:

WEATHER, CLIMATE AND ANIMAL ADAPTATION

TOPIC-1:

WEATHER

WEATHER

Weather: "weather is the condition of the abiotic components of the atmosphere such as temperature, humidity, rain fall, wind and pressure at a particular place and time. The weather of a place may change many times, even over a day.

Elements of weather: The elements of weather are: (a) Temperature, (b) wind (c) humidity, (d) rain fall, and (e) pressure. These elements decide the weather condition of a place. The sun plays a central role in determining the weather conditions of a place. It Controls temperature and humidity and also causes winds to blow. The elements of weather keep changing during the day, affecting each other and causing changes in the weather pattern of an area. Meteorology department is associated with the scientific study of the atmosphere and its components.

TEMPERATURE: The main source of earth temperature is the sun. The average temperature of earth is 15 degree Celsius. It at day and night. The maximum-minimum thermometer is used to measure the maximum and minimum temperature of a day. The maximum temperature is usually measured between 2-5 pm and the minimum temperature just before or around sunrise.

WIND: It is caused by uneven heating of the land. It affects the weather of a place to great extent. Loo (a hot strong wind) which originates in the great Indian Desert, blows over North India in summer. In winter, cold winds from the Himalayan region blow across the North Indian plains. Hence places like Delhi are hot in summer and cold in winter.

Anemometer: The device used to measure wind speed is called Anemometer

Humidity: The amount of water vapour present in air is called humidity. Due to the sun water from water bodies evaporate and humidity increases. Coastal areas are more humid than inland areas.

PRECIPITATION: The water that falls to the earth in the form of rain, snow, hail or sleet is called precipitation. At low temperature water vapour condenses to form snow. J & K, Himachal have much snow fall.

Weather Instrument: To measure different parameters or elements of weather some instruments are used. These instruments are called weather Instrument. Some are mentioned below

(a) **Hygrometer:** The device that is used to measured humidity is called Hygrometer.

(b) **Rain gauge:** The device that is used to measure rainfall is called rain gauge.

(c) **Thermometer:** The device that is used to measure temperature is called thermometer. Maximum-minimum thermometer is used to record the minimum and maximum temperature of a day.

(d) **Anemometer:** The device that is used to measured wind speed is called Anemometer.

(e) **Wind Van:** The device or instrument that is used to measure the direction of wind is called wind van.

(f) **Snow gauge:** The instrument that is used to measure amount of snow in a place is called snow gauge.

Note : Mawsynram in Meghalaya receives around 11800 mm of rainfall every year. It is one of the wettest place in the world.

Types of weather: weather has different types such as rainy weather, stormy weather, cloudy weather, hot weather, cold weather, dry weather, wet weather .

QUESTIONS: HOME ASSIGNMENT

1. What do you understand by weather?
2. Name the elements of weather.
3. What is the main source of temperature for earth surface?
4. What do you mean by humidity? Name the device used to measure humidity in a place.
5. Name any five weather instruments. Also write the function of each of them.
6. What are anemometer, hygrometer and wind vane used for?
7. Does weather pattern change in a day?
8. What is the role of the sun in determining the weather of a place?