

Monsoons and Climate Graphs

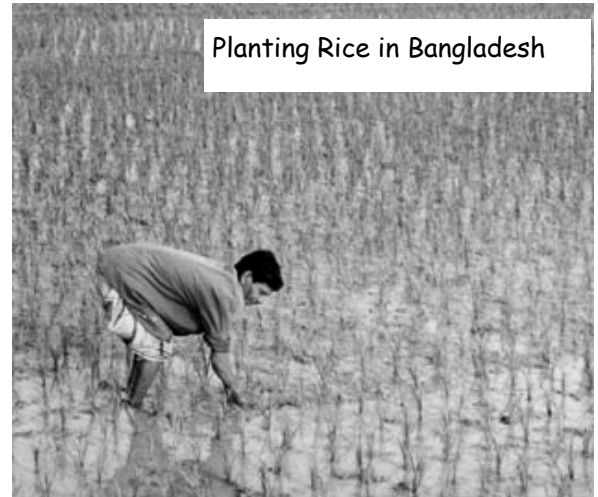
RESOURCE 1

A monsoon is the name given to a seasonal change of wind direction bringing with it hot and wet weather. Rainfall is very heavy over a long period of time, sometimes even for 5 months. In Bangladesh the monsoon season is from June to October when it is very hot (around 35°C) and very wet. All the countries in eastern Asia experience the monsoon season but the strength and timing varies. When the monsoon arrives it is very sudden. For a few days beforehand the air will be hot and very humid. Suddenly the monsoon will arrive and it will start to rain continuously for several weeks. Unfortunately the monsoon is very unpredictable. It can sometimes arrive late and on the odd occasions the monsoon doesn't appear at all. This can be bad news for the people of Bangladesh as they depend heavily on the monsoon.

Most people in Bangladesh are subsistence farmers. This means they only grow food for themselves and their family to eat and have little left over to try and sell for money. In Bangladesh most farmers grow rice. To grow rice you need a lot of water as the picture to the right shows. The farmers need the heavy monsoon rains so that it floods their fields for the rice to grow in. These fields are known as rice fields.

To grow rice, farmers in Bangladesh flatten the land and flood it to a depth of about 10cm. They then plant the rice seedlings by hand. Rice needs lots of water which is why the fields are flooded. Also, lots of

water helps stop weeds growing which can't survive in the deep water. However, if the monsoon arrives late or doesn't come the farmers can't grow their rice and this can lead to starvation. If the monsoon rains are a lot heavier than normal then the rice fields get too flooded and the rice doesn't grow. The heavy rain might even wash the fields away!

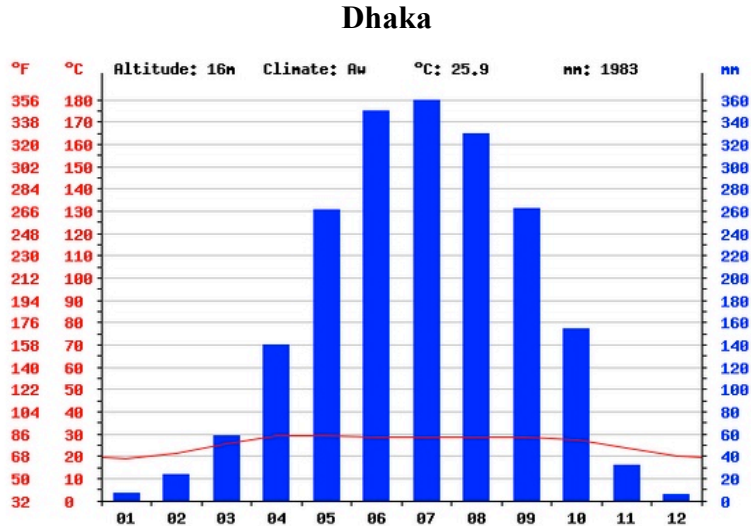


Task 1 – Answer the questions below using Resource 1

- Q1. What type of weather does a monsoon bring?
- Q2. How long is the monsoon season in Bangladesh?
- Q3. The monsoon can be very unpredictable. What does this mean?
- Q4. What is a subsistence farmer?
- Q5. Do you think the monsoon is Good or Bad? Why do you think this?

Climate Graphs

A climate graph is a special type of graph as it shows two things on it. It shows the Temperature and Precipitation and how they vary over a whole year. Look below and you will see a climate graph for Dhaka, the capital of Bangladesh. The climate graph uses the average temperature and rainfall over a period of 30 years.



Temperature is shown as a LINE graph and the scale is on the LEFT
 You plot the temperature as a small dot for each month then when you have done this join them all up in one go as a smooth line with a RED pen or pencil.

Precipitation is shown as a BAR graph and the scale is on the RIGHT
 You draw a bar for each month showing the rainfall for that month and colour the bars in BLUE.

Task 2 – Complete the tasks and answer the questions using the Dhaka Climate Graph

FIRST - Join the temperature points with a smooth line using a red pen or pencil for the climate graph for Dhaka.
 NEXT - Colour in the bars with a blue pen or pencil to show the rainfall for the Dhaka climate graph.

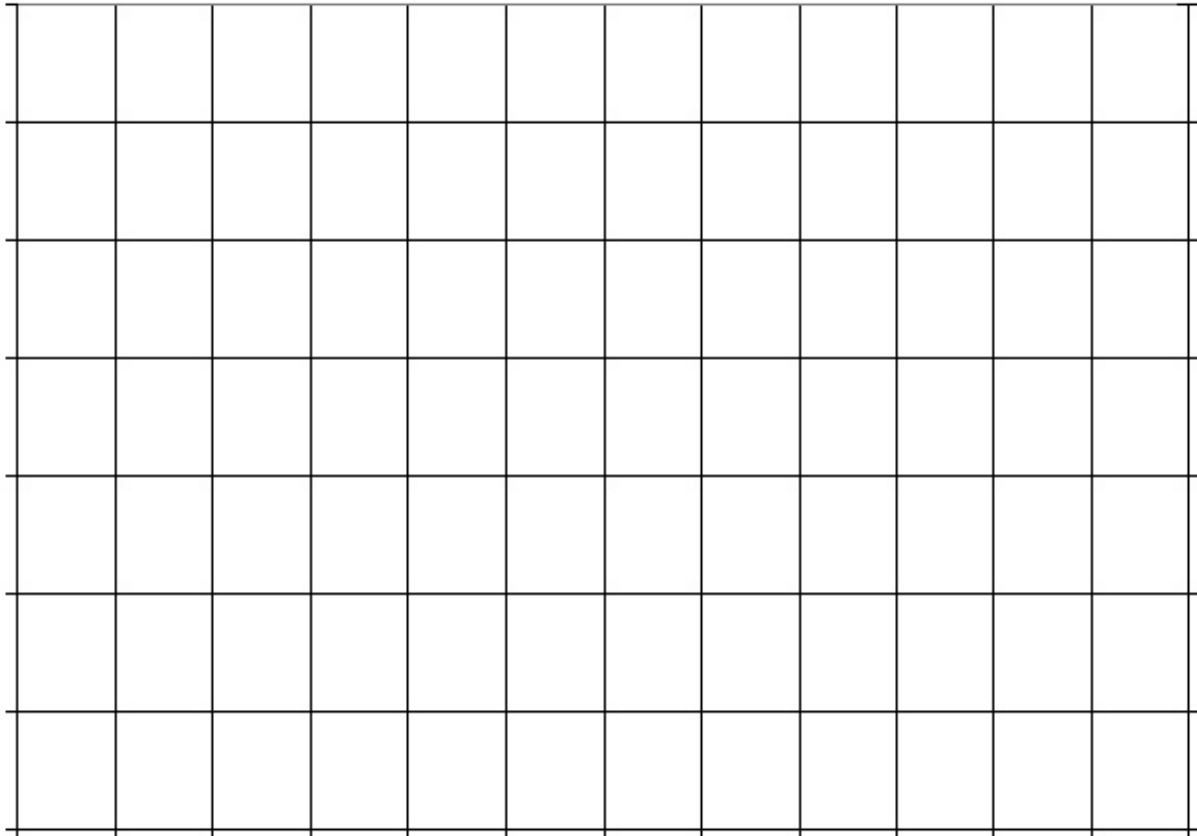
Now answer these questions:-

- Q1. What is the hottest month in Dhaka?
- Q2. What month has the lowest temperature? Write this temperature down.
- Q3. What is the average rainfall in August?
- Q4. What month has the most rainfall?
- Q5. In your own words describe the rainfall for a whole year in Dhaka.

Extension 1

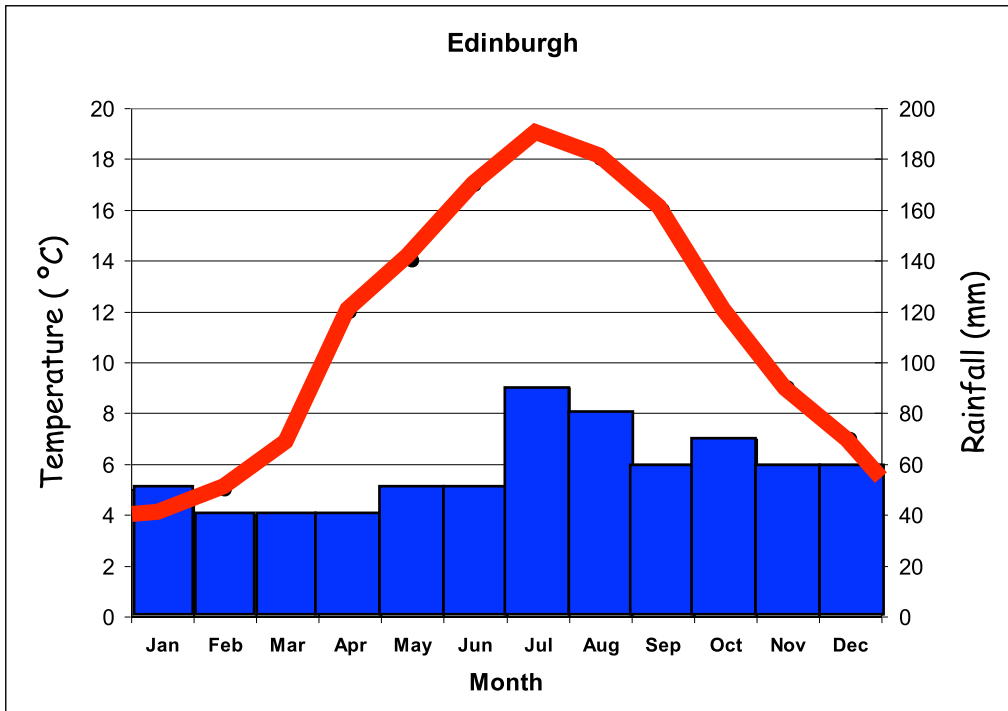
This table shows climate data for Chittagong, another city in Bangladesh that is closer to the coast than Dhaka.

	J	F	M	A	M	J	J	A	S	O	N	D
Temperature	20	24	28	32	33	33	30	29	30	28	25	20
Rainfall	5	30	60	150	270	530	590	520	320	180	60	20



- 1) Plot the temperature on the climate graph for each month. When you have done this join all the points with one smooth line with a red pen or pencil.
- 2) Draw the rainfall Bars for each month using a ruler. When you have drawn them all, colour them in with a blue pen or pencil
- 3) What are the HOTTEST months? (There are TWO answers)
- 4) What month has the least amount of rainfall?
- 5) What is the TOTAL rainfall for Chittagong?
- 6) In your own words describe BOTH the temperature and rainfall in Chittagong for a whole year.

Extension 2



Look at the climate graph for Edinburgh. Complete the line graph for the temperature in RED. Colour in the bar Graph for the rainfall in BLUE. When you have done this answer the questions below.

Q1. What is the hottest month in Edinburgh?

Q2. What are the driest months in Edinburgh?

Q3. What is the average temperature for September?

Q4. In your own words describe the pattern of temperature for Edinburgh over the whole year.

Q5. What month has the most rainfall in Edinburgh?

Q6. What is the total rainfall for Edinburgh for a whole year. (You need to look closely at the Graph)