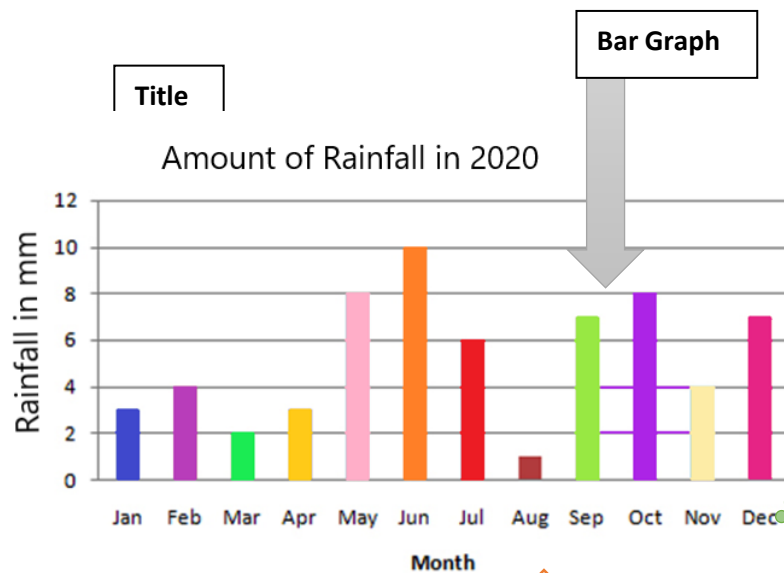


Level	Form 3																						
Theme	The Physical earth and Human Interaction																						
Topic	Weather and Climate																						
Outcome	Interpret Line and Bar Graph with Temperature and Rainfall Statistics																						
Teaching Points	Review Lesson on Elements of Weather and Climate before moving on to this Activity What is a Line Graph? A line graph (or line chart) is a graphical display of information that changes continuously over time. Within a line graph, there are points connecting the data to show a continuous change. Amount of Rainfall for 2020 Line Graph Vertical or Y Axis Horizontal or X Axis Data in the table is used to create the Line Graph above <table><tr><td>Months</td><td>Jan</td><td>Feb</td><td>Mar</td><td>Apr</td><td>May</td><td>Jun</td><td>Jul</td><td>Aug</td><td>Sep</td><td>Oct</td></tr><tr><td>Amount of Rainfall in mm</td><td>3</td><td>4</td><td>2</td><td>3</td><td>8</td><td>10</td><td>6</td><td>1</td><td>7</td><td>8</td></tr></table> - A line graph has two axes. The x-axis of a line graph shows the occurrences and the categories being compared over time and the y-axis represents the scale, which is a set of numbers that represents the data and is organized into equal intervals. - It is important to know that all line graphs must have a title. The title of a line graph provides a general overview of what is being displayed. - A line graph will also include a key that represents the event, situation, and information being measured over time.	Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Amount of Rainfall in mm	3	4	2	3	8	10	6	1	7	8
Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct													
Amount of Rainfall in mm	3	4	2	3	8	10	6	1	7	8													

Line graphs are useful for displaying smaller changes in a trend over time. We can use a line graph to compare different events, situations, and information

What is a Bar Graph?

A bar graph (bar chart or bar diagram) is a visual tool that uses bars to compare data among categories. A bar graph may run **horizontally or vertically**. The important thing to know is that the longer the bar, the greater its value.



Data in the Table below was used to create the **Bar Graph** above

Months	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
Amount of Rainfall in mm	3	4	2	3	8	10	6	1	7	8	4	7

Bar graphs consist of two axes.

On a vertical bar graph, as shown above, the horizontal axis (or x-axis) shows the data categories e.g. Months. The vertical axis (or y-axis) is the Number of Student. The colored bars are the data series.

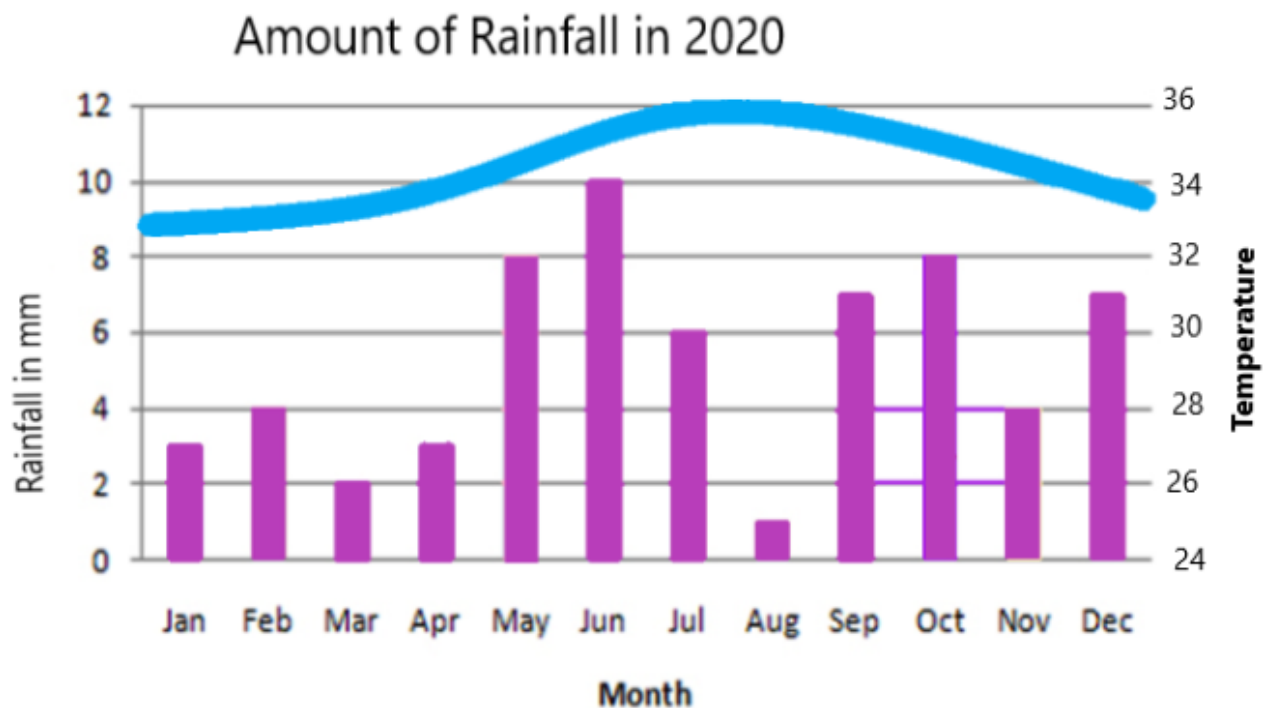
Bar graphs have three key attributes:

1. A bar diagram makes it easy to compare sets of data between different groups at a glance.
2. The graph represents categories on one axis and a discrete value in the other. The goal is to show the relationship between the two axes.
3. Bar charts can also show big changes in data over time.

Understanding the data using a Line or Bar Graph

Let's Examine

Remember when two sets of data (Temperature, Rainfall) is presented in one chart, a relationship between them is often examined. *In the example below August has the lowest rainfall but records the highest temperature for the year 2020*



Using the **Bar Graph**, answer the following:

1. In which month was the **highest** amount of rainfall recorded?

Answer: June

2. In which month was the **least** amount of rainfall recorded?

Answer: August

3. Which TWO months recorded 7mm of rainfall?

Answer: September and December

4. Which TWO months recorded 4mm of rainfall?

Answer: February and November

5. Which TWO months when added gives a total of 3mm of rainfall?

Answer: March and August

Using the **Line Graph (Temperature)** in the diagram above, answer the following:

6. Which **two months** have the highest temperature recorded?

Answer: July and August

7. Peak temperature occurs in which month?

Answer: August

8. Which month recorded the lowest temperature?

Answer: January

Using **both the Line and Bar Graph** above, answer the following:

9. Which month recorded the highest Rainfall and a temperature of 35 Degrees Celcius?

Answer: June

**Activity
1**

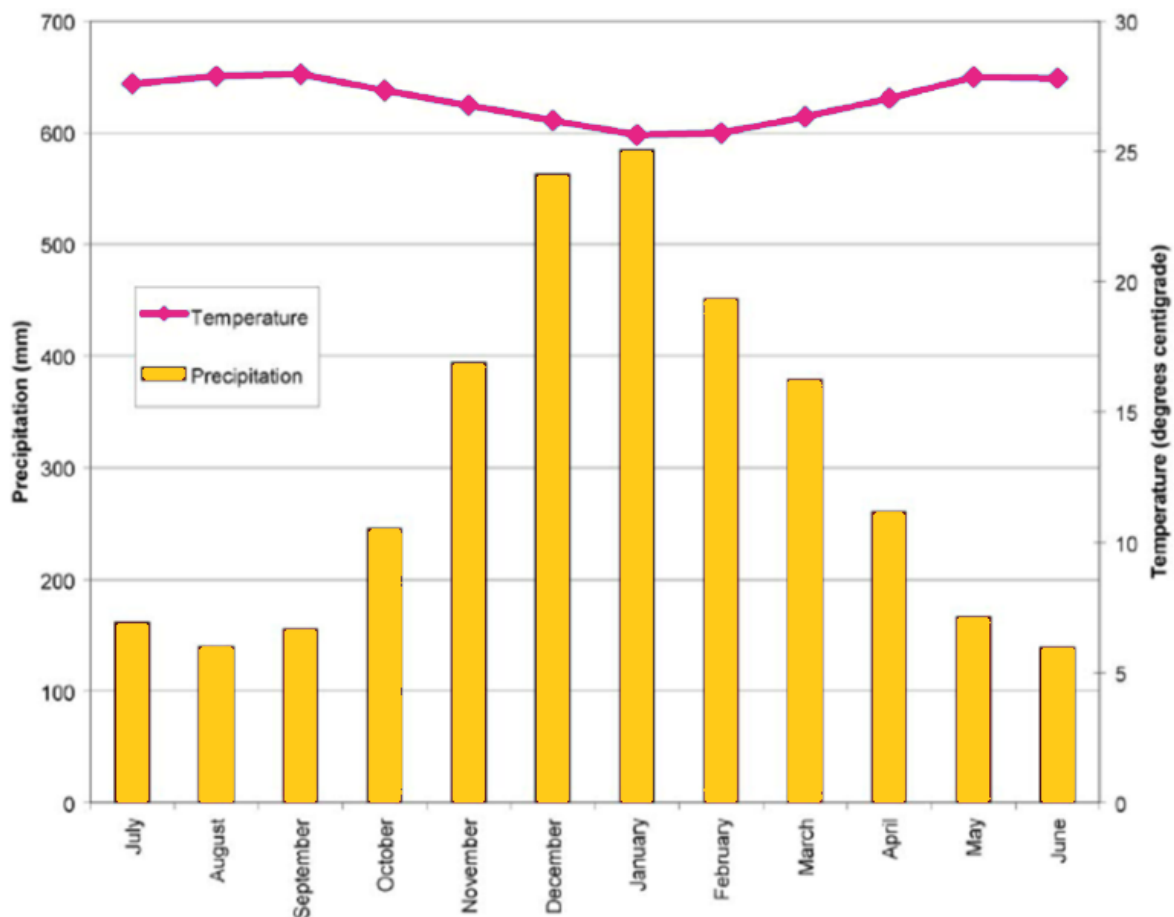
Constructing the following:

1 A Bar Graph using **the Rainfall data and the Months of the Year for 2020**

2 A Line Graph using **the temperature Data and the Months of the Year for 2020**

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sept	Oct	Nov	Dec
Average Temp	24	26	31	32	33	35	34	28	31	26	25	23
Rainfall mm	240	190	180	170	170	180	270	260	200	250	260	230

**Activity
2**



Using the **Bar Graph** above, answer the following:

1. In which month was the highest amount of rainfall recorded?

Answer: _____

2. In which months were the least amount of rainfall recorded?

Answer: _____

3. Which TWO months recorded 150mm of rainfall?

Answer: _____

4. Which TWO months recorded the highest rainfall?

Answer: _____

5. Which THREE months had a consistent amount of rainfall?

Answer: _____

Using the **Line Graph** in the diagram above, answer the following:

6. What was the lowest temperature recorded?

Answer: _____

7. Peak temperature occurred in which months?

Answer: _____

Using **both Graphs** answer the following questions:

8. Which month had the highest rainfall but the lowest temperature?

Answer: _____

9. The gradual increase in rainfall occurred over which Three month period?

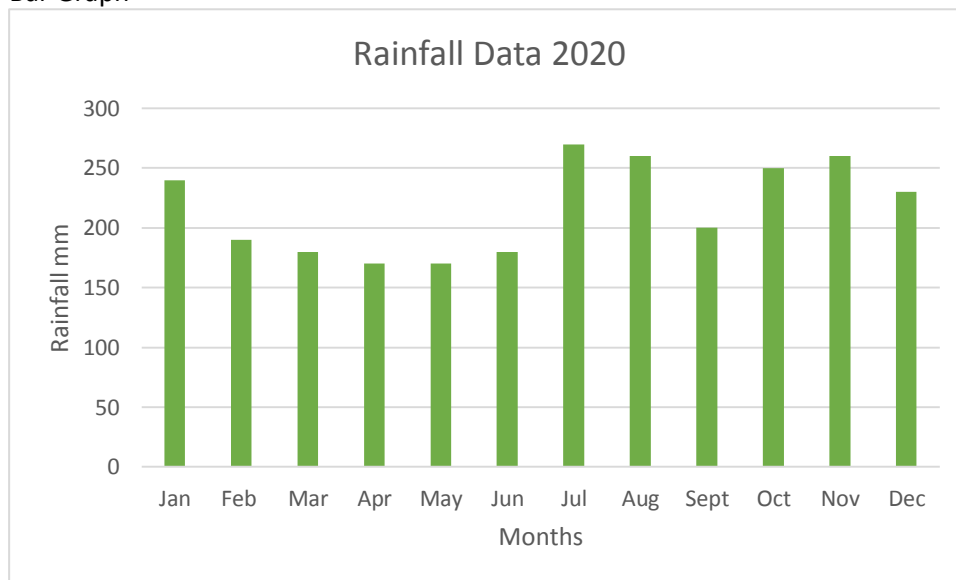
Answer: _____

10. Which TWO months have the same temperature and rainfall recorded?

Answer: _____

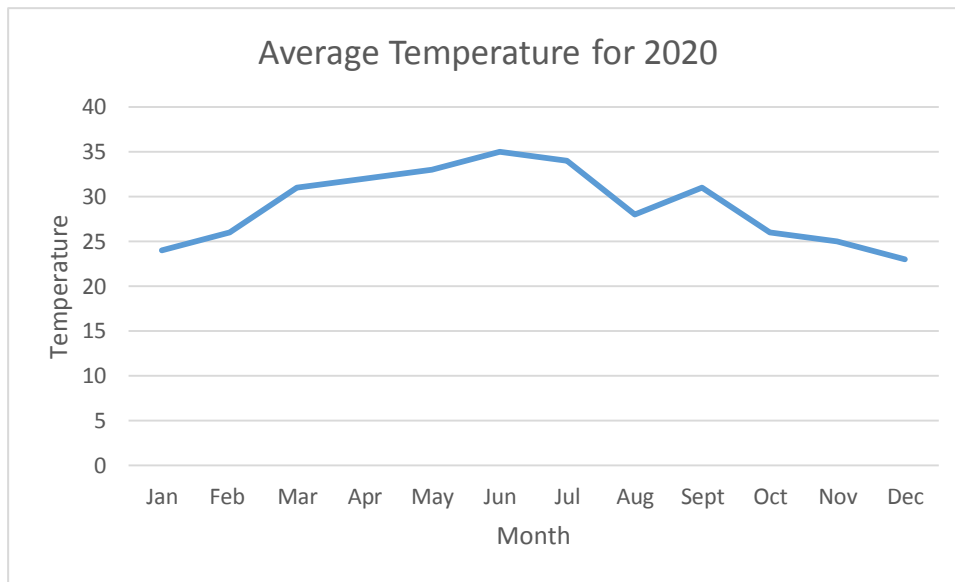
**Answers
Activity
1**

Bar Graph



Line Graph

**Activity
2**



Bar Graph

- 1 January
- 2 August and June
- 3 August and June
- 4 December and January
- 5 July, August and September

Line Graph

- 6 Lowest temperature is 25 Degrees Celsius
- 7 Peak temperatures occurred in August, September, May and June

Both Line and Bar Graph

- 8 The month with the highest rainfall but the lowest temperature- January
- 9 Gradual increase in temperature: February, March, April and May
- 10 Months with the same temperature and rainfall recorded: September and May