Empowering students in extended writing tasks in Geography

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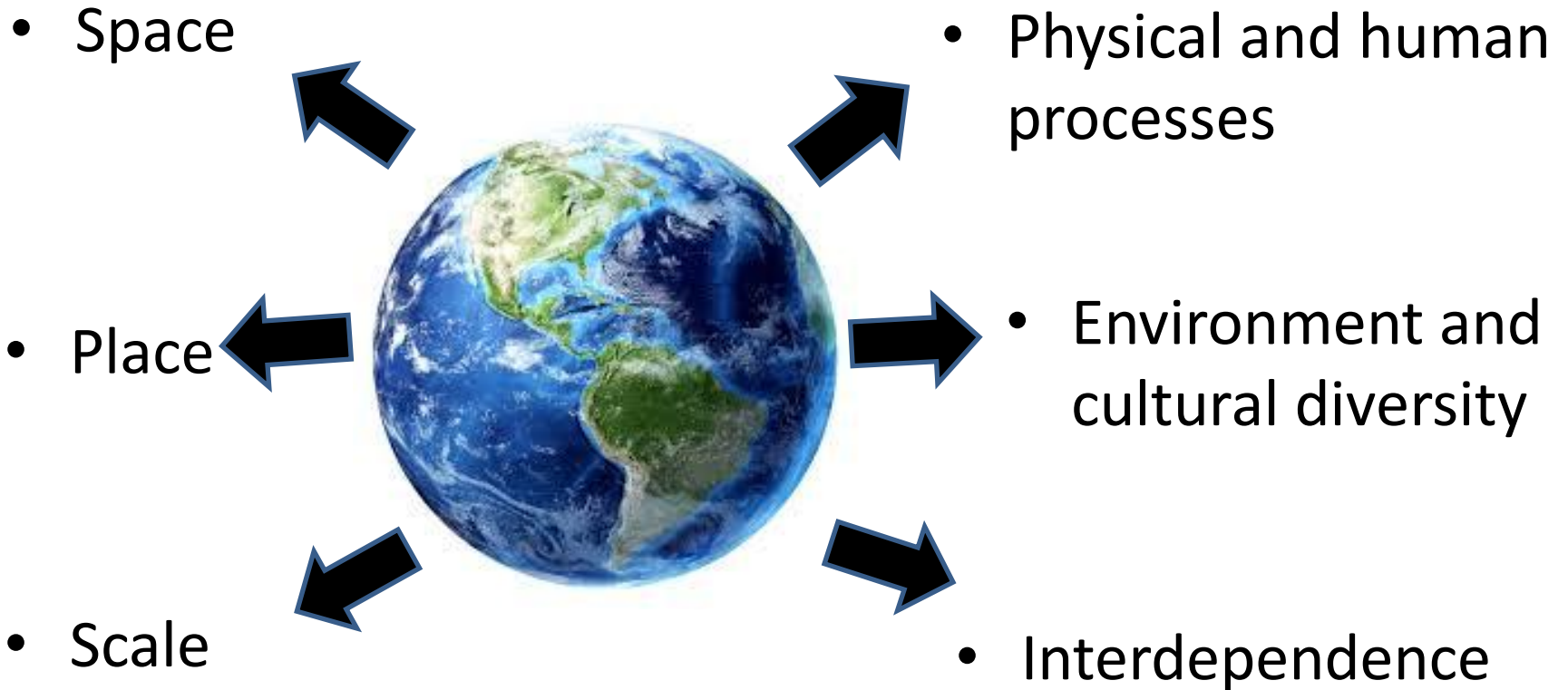
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Overview

- Geographical concepts in curriculum

- Focus of study

- Concept of scaffolding

- Writing (Description) based on source-based map

- Writing (Explanation) based on geographical data

- Writing (Explanation) without scaffolding

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Key Geographical Concepts (Upper Sec)

- Space

- Place

- Scale

- Physical and human processes

- Environment and cultural diversity

- Interdependence

(MOE, 2013)

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Focus of Study

1. Raise students' **awareness** of the structure and language use so as to **support** their content learning and effective meaning-making with geographical data

2. Attention to concrete measures through appropriate scaffolds in order to **support students in reading and interpreting geographical data**

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Scaffolding

- Contextualized against **socio-constructivist** perspective (Vygotsky, 1978; 1986, Applebee; 2002)

- **Language-mediated** and **Task-enabling** support (Mitchell & Sharpe, 2005) for construction of coherent, well-structured descriptions and explanations

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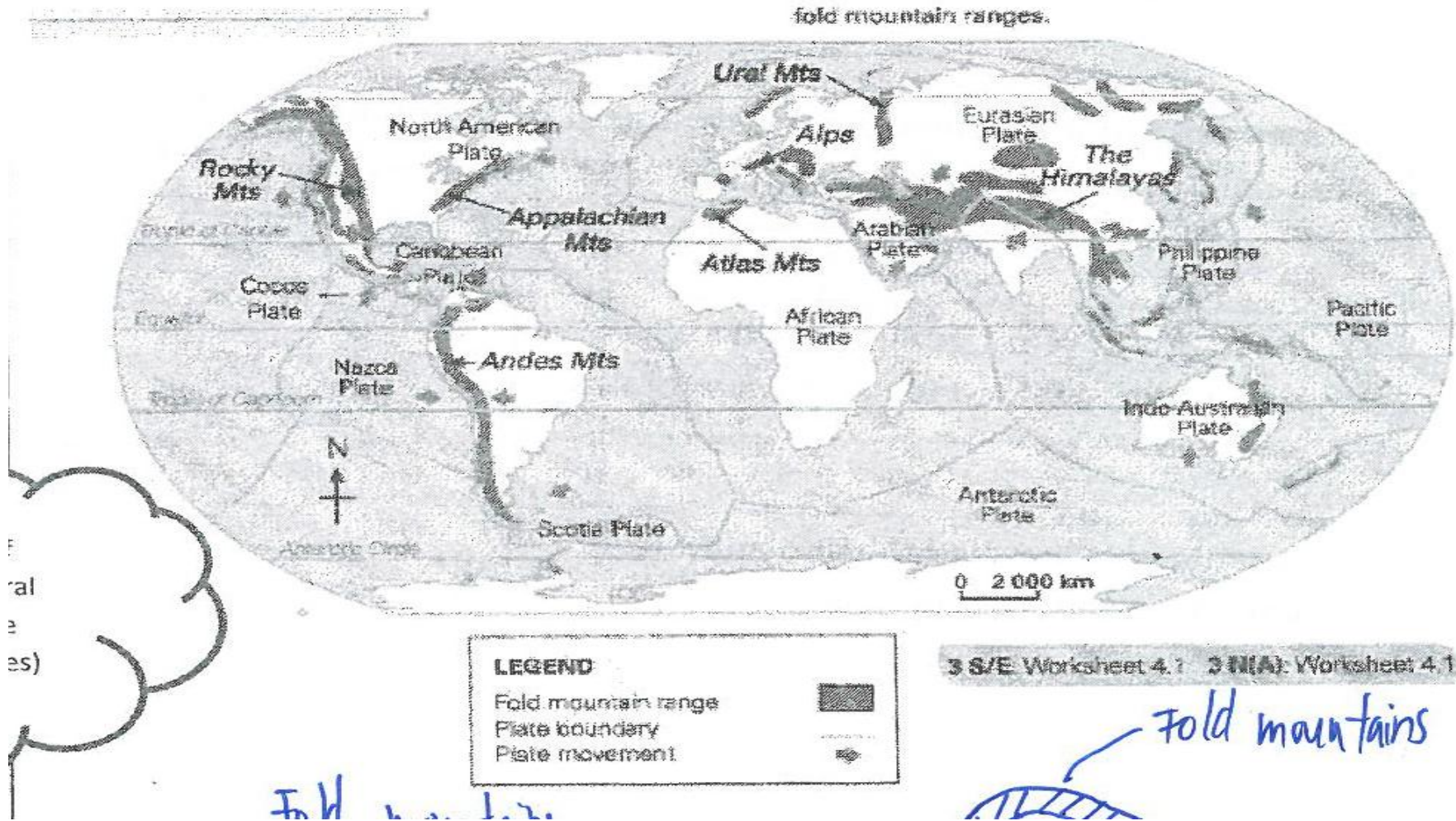# Description (with reference to a source – map)

Structure:

- General statement of pattern

- Quote data from source

- Identify anomalies and quote data

Language features:

- Connectors of contrast (E.g. However, On the other hand)

- Specific adjectives and adverbs to describe distribution (E.g. unevenly distributed, concentrated at..., largely, region)

- Words to show general pattern

(E.g. In general, Most of, Overall)

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Question

Describe the distribution of the world's fold mountains.

fold mountain ranges.

LEGEND
Fold mountain range
Plate boundary
Plate movement

3 S/E Worksheet 4.1   3 N(A) Worksheet 4.1

Fold mountains

Geographical Idea: Space
Key Concept: Tectonic Compressional Force

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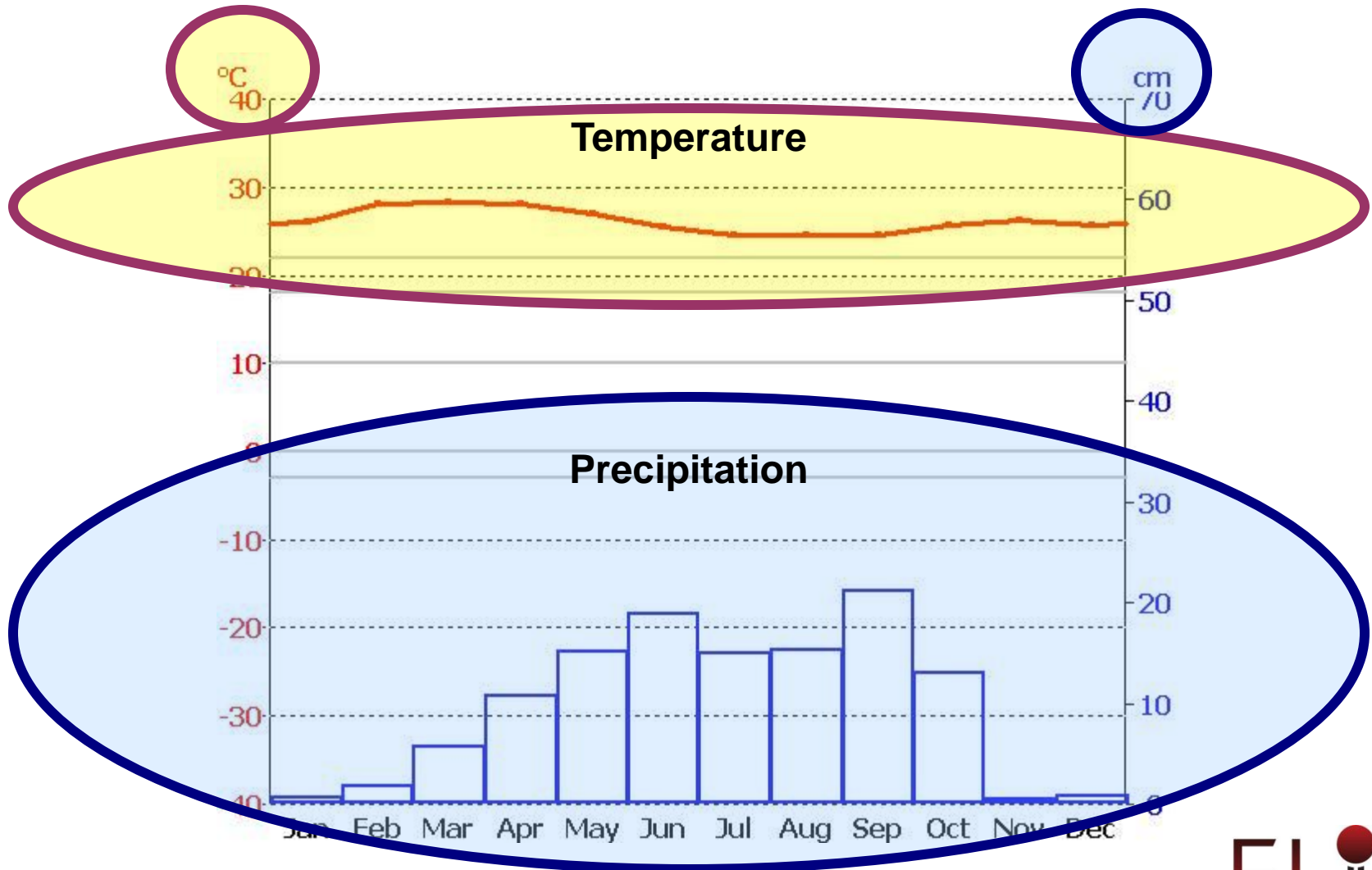# Describing Climographs

A climograph, or climatic graph as seen in Fig 3.8, shows the average monthly temperature and rainfall of an area over a year. In a climograph, temperature is shown by a line graph. The bar graph shows the rainfall received for each calendar month from January (J) to December (D). The table below shows how the two climatic data can be classified.

Climatic data	Low	Moderate	High
Annual rainfall (mm)	Less than 250 mm	250 mm to 1 000 mm	1 000 mm to more than 2 000 mm
Average annual temperature (°C)	Less than 10°C	10°C to less than 20°C	More than 20°C

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Sample Climograph

Challenges in Describing the Climograph

- Challenges in interpreting climograph data:

a) Make sense of data by from line and bar graphs

b) Express general trend & Describe trends for both precipitation and temperature based on graph reading, citing data from graph

- The use of language features and providing a structure can help to support students in writing accurate and meaningful descriptions for this type of question/task.

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Enabling students to read and describe the readings of a climograph.

- The use of language features and providing a structure can help to support students in writing accurate and meaningful descriptions for this type of question/task.

- **Some common mistakes students make in descriptive writing task:**
- The increase is very much…..much more faster [sic]
- From Jan it increases a little then drops a bit then remains the same. Some months it goes very high then some months drop until zero [sic]
- The rainfall is the not the same over the many months [sic]
- Blank (students chose to leave the question blank

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Language to describe graph trends

Word	Part of Speech	Example
decline	*noun: decline* *verb: declined, declining*	Past global temperatures have indicate a decline over the years. Global temperatures declined from 1945 through 1979. Before that, temperatures had been stable or declining for about 40 years.
fall	*verb*: to fall, is falling, has fallen, fell	Total rainfall **fell** from 22.2m to 21.5m from 2011 to 2012.
drop	*verb*: to drop, is dropping, has dropped, dropped	Total rainfall **dropped** from 22.2m to 21.5m from 2011 to 2012.

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Structure for Describing Climographs

Find the following by reading the Climograph.

Temperature:

- Highest temperature :

- Lowest temperature :

- Average temperature : (high / moderate / low)

Precipitation:

- Total precipitation: (high / moderate / low)

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Writing frame

The **average** monthly temperature of the place is <u>high / moderate / low</u> at _____ºC.

The temperature is **constant throughout the year** / **seasonal with higher temperatures in _____ (months) and lower temperatures in _____ (months).**
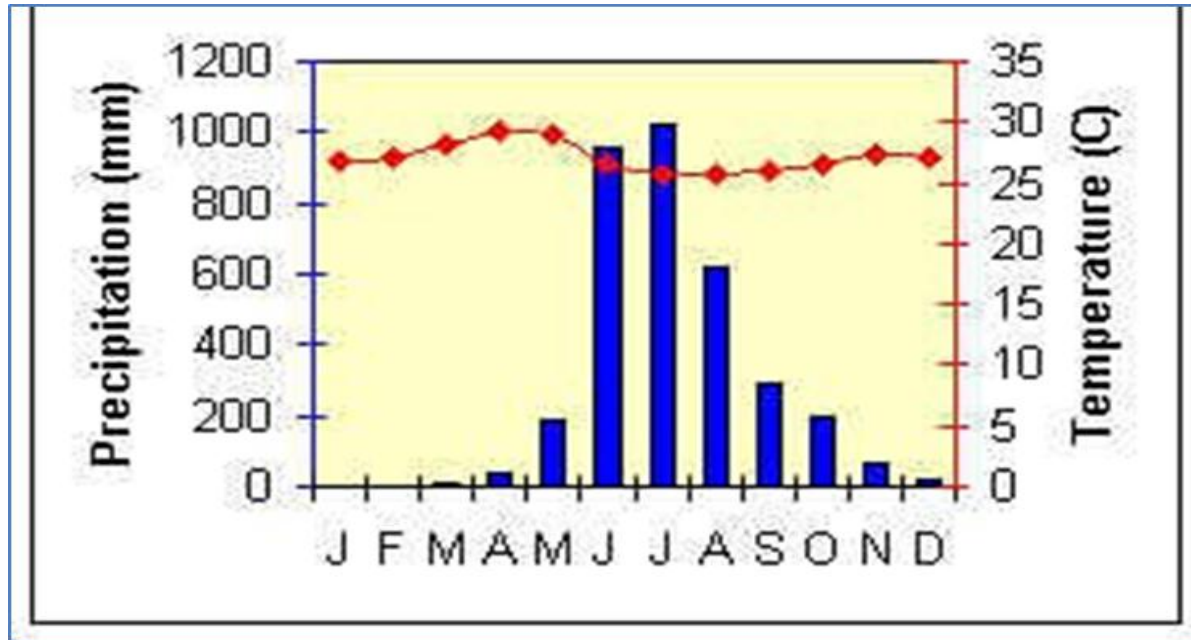
The highest temperature is _____ ºC and the lowest temperature is _____ ºC.

The **total** annual rainfall is <u>high / moderate / low</u> at _____ mm.

Rainfall is **regular throughout the year** / **seasonal with the wet seasons in _____ (months) and dry seasons in _____ (months)**

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Describing Climograph

- **Identify** and **describe** the climograph of country X.

Comparing Climographs

- **Compare** the temperatures of Country X and Country Y respectively.

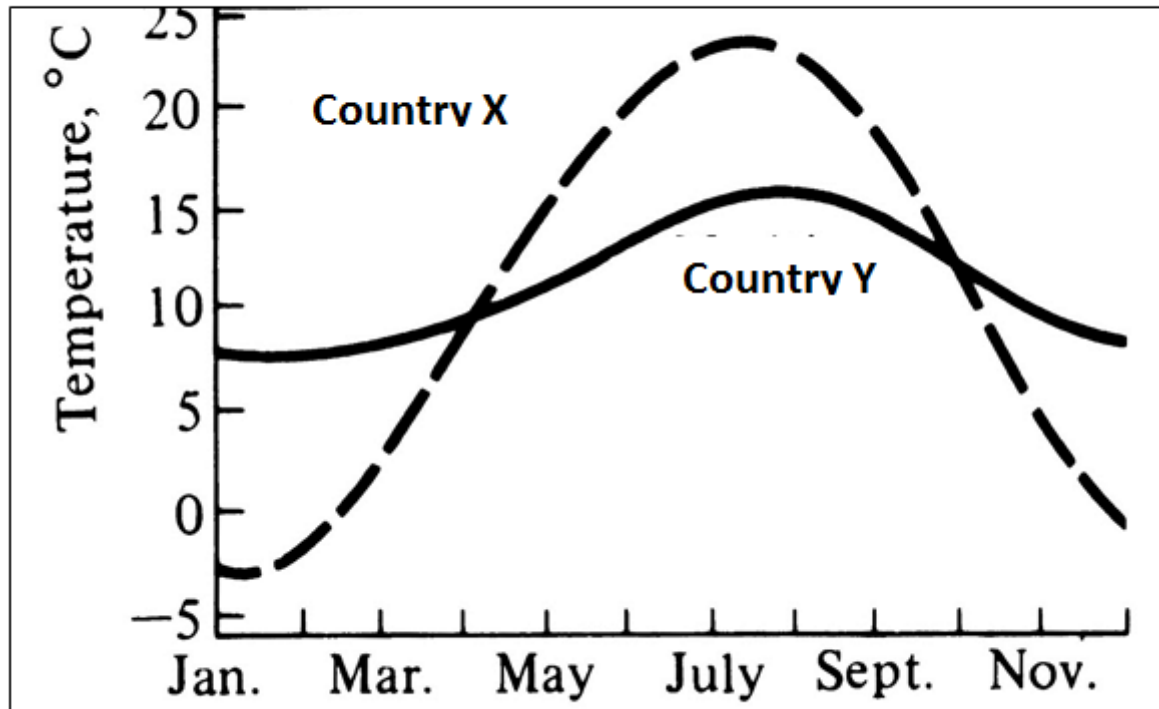1 (a) Fig. 1 shows the climograph of two countries, X and Y, which are located along the same latitude.

Fig. 1

Language for expressing comparison, contrast

Compare	Contrast	Compare and Contrast
There are several ways in which ..... and ... could be said to be similar.	A .... and ..... are different in a number of ways.	In some ways, ... and ..... are alike.
The first way they are alike is that they are both......	First of all, ... but	For instance, they are both.....
Another similarity is that they	Another difference is that ...., while	Another feature they have in common is that ....
A further feature they have in common is	Thirdly, ... in contrast to ...... which	Furthermore, they both....
Finally, they both.....	Finally, ... , but	However, they also differ in some ways. For example, ... while ....

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Global Warming & Cooling Trends

Average Global Temperature, 1880-2005
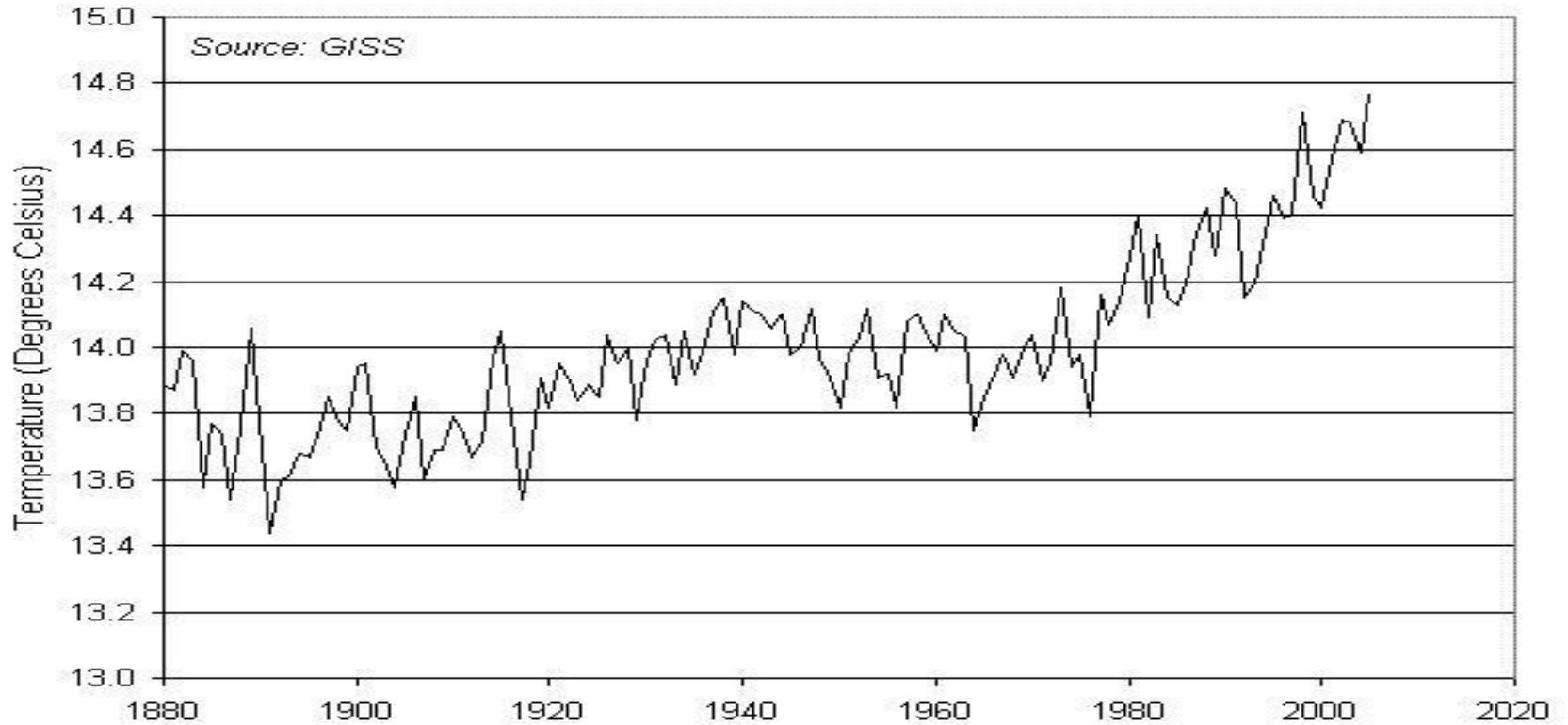
Example: Describe the global temperature trend from 1880 to 2000. [3]

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Example: Describe the global temperature trend from 1880 to 2000. [3]- Scaffold provided

Command word: _____

Steps:

1)

2)

3)

Helping words to describe trend:

Direction – Increasing, Decreasing, Constant

Rate – steadily, rapidly, slowly

Other movement – Fluctuating, Sudden (increase/decrease)

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(a) Study Fig. 1 which shows the global distribution of mangrove forests. **Describe** the distribution of mangrove forests as shown in Fig. 1.
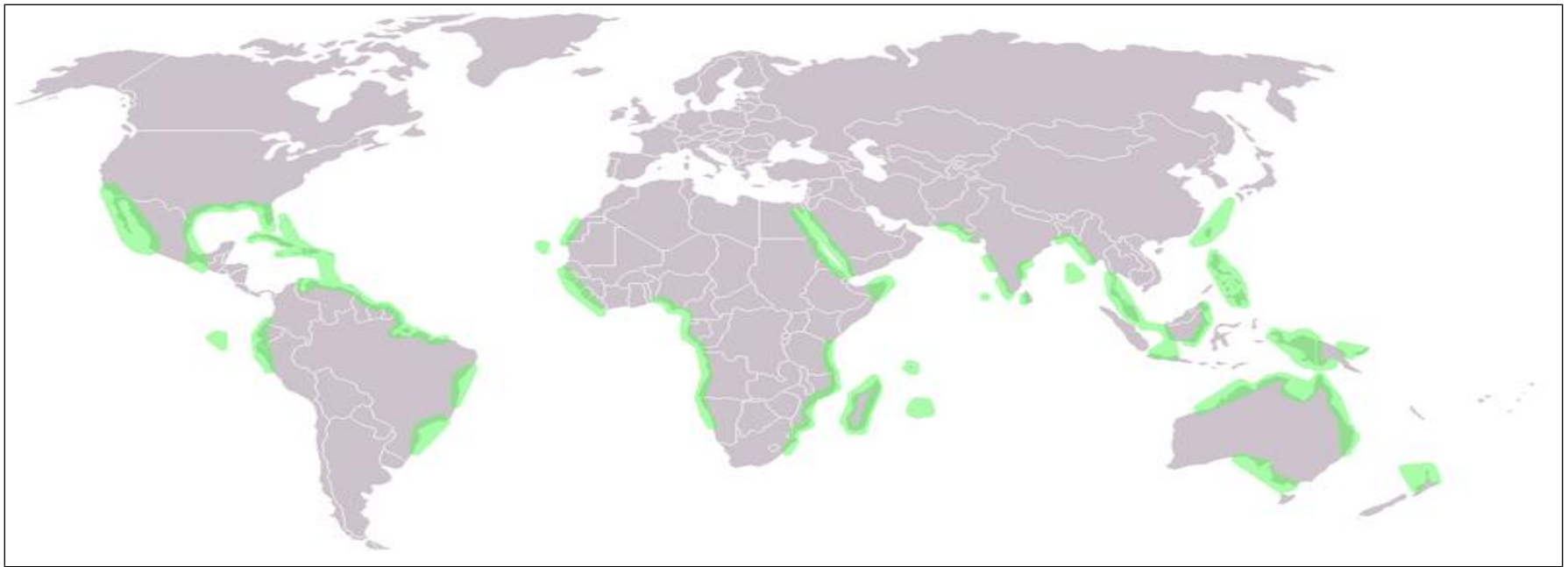

Fig. 1.

Fig. 2

(b) Fig. 2 shows mangrove vegetation along a coast. With the help of Fig. 2, **explain** how mangrove vegetation helps to stabilize shorelines.

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A group of students in Brazil decided to study the relationship between rainfall and humidity. They collected the rainfall and humidity data and presented them in the bar and line graph shown in Fig. 3.

Meteorological conditions at Tartagal, Brazil
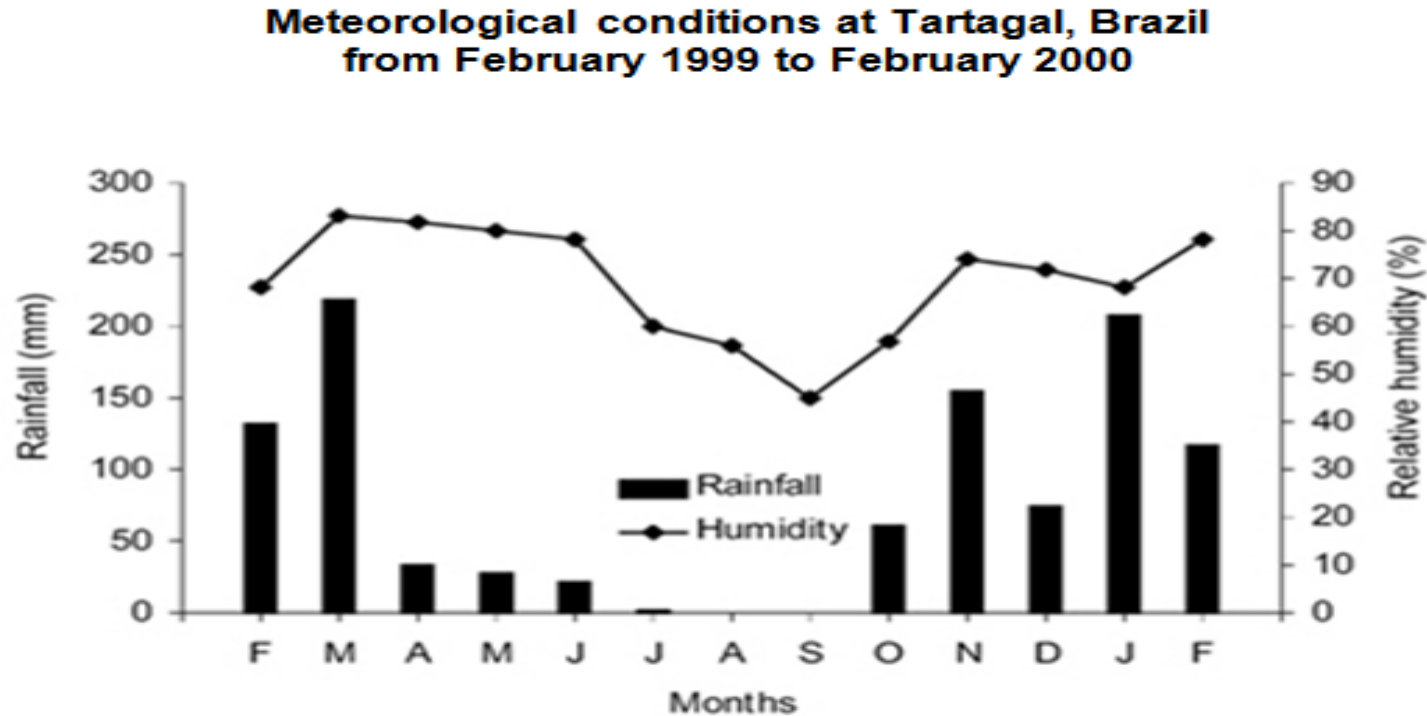from February 1999 to February 2000

Fig. 3

Describe the relationship between relative humidity and rainfall and identify another way to represent the data to show this relationship. [2]

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Study Fig. 5, which shows the world economy - Gross Domestic Product (GDP) vs international tourist arrivals.
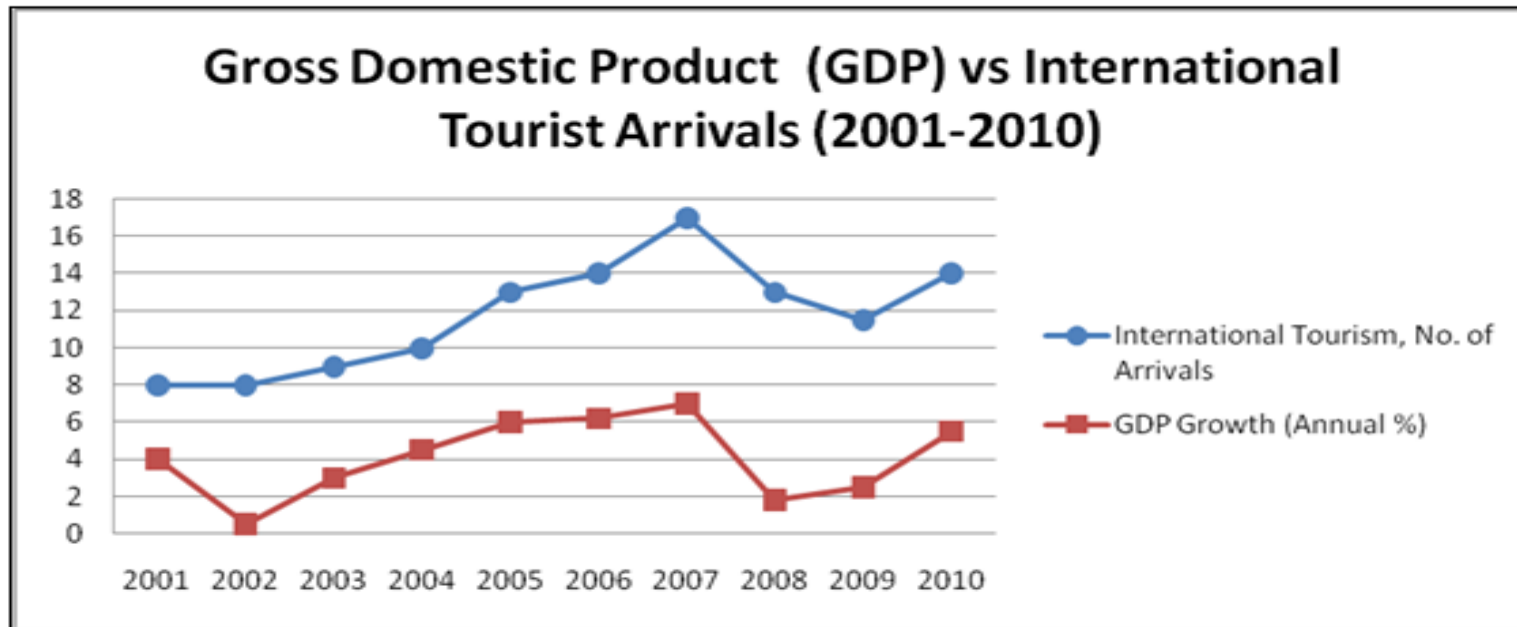

Fig. 5

Describe the relationship between Gross Domestic Product (GDP) and international tourist arrivals. What is the reason for the decrease in tourist arrivals in 2009? **[2]**

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Keeping an Eye on Exams

Fig. 6 (left): Study Fig. 6, which shows aspects of the tourism policy of Bhutan, a small state in the Himalayan Mountains.
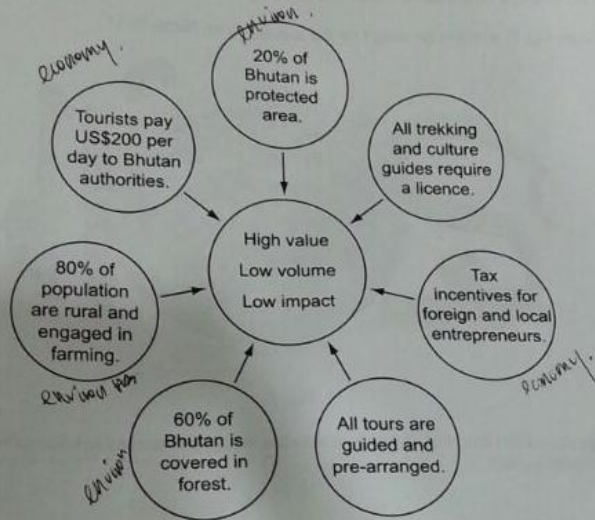
3 (a) Study Fig. 6, which shows aspects of the tourism policy of Bhutan, a small state in the Himalayan Mountains.

Diagram contents:
- 20% of Bhutan is protected area.
- Tourists pay US$200 per day to Bhutan authorities.
- All trekking and culture guides require a licence.
- High value Low volume Low impact
- 80% of population are rural and engaged in farming.
- Tax incentives for foreign and local entrepreneurs.
- 60% of Bhutan is covered in forest.
- All tours are guided and pre-arranged.

Fig. 6

Explain how the tourism policy of Bhutan may benefit both the economy and environment. [6]

Section B

Answer one question from this section.

2 (a) Study Fig. 5, which shows the contribution of three areas to the total number of tourists to ASEAN countries between 2009 and 2011.

area of origin	2009 number of tourists in thousands	2009 % of total tourists	2010 number of tourists in thousands	2010 % of total tourists	2011 number of tourists in thousands	2011 % of total tourists
ASEAN	31 693	48.3	34 820	47.2	37 732	46.5
European Union	6 668	10.2	6 971	9.5	7 325	9
China	4 201	6.4	5 415	7.3	7 315	9

Fig. 5

Compare the importance of the three areas on Fig. 5 as a source of tourists to ASEAN countries and suggest reasons for the differences. [6]

(b) Explain why tourists are attracted to areas with a rich culture. [5]

Using information provided (and student's own knowledge)…
Explain

Compare the importance of the three areas on Fig. 5 …..

GCE 'O' Levels 2014 (November)

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THANK YOU

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