Ark Pioneer learning at Home

Core Curriculum

Geography

Work to be completed

- ☐ Work 1 – Activities 1 + 2
- ☐ Work 2 – Activities 3 + 4
- ☐ Work 3 – Activities 5 + Copy, Cover and Check key words on glossary (page 2)
- ☐ Work 4 – Activity 6 + Red Pen Check
- ☐ Work 5 – Red-Pen Check Week's work + **complete Online Quiz before next Tuesday**

Resources / links to help with work:

- ☐ **NEW!**: You could practise some of the skills you have learned this year by going onto Oak National Academy's Digital Lessons. There are different topics. If you want to practise:
- ☐ Knowledge of the world's countries and continents, as well as your map skills, right click **here.**
- ☐ Tectonic plate theory, and earthquakes and volcanoes - right click **here.**

How will this work be checked?

Each week you will be given 'red pen work' to carry out corrections on the learning that you are doing at home. Please make sure this work is done and that you correct all work in your exercise book. You can red-pen check your Geography work using the answers at the bottom of the booklets, after you have finished having a go yourself.

You must also complete the weekly quiz for your core curriculum subjects online and the link to those is on our school website in the 'quizzes' drop-down option from 'Home Learning'.

How much time should I be studying and what happens if I don't finish all my work?

For core curriculum subjects you are expected to do 30min each day as a minimum. Those subjects are English language, English literature, Maths, Science, History and Geography. These subjects all have a weekly quiz and will be checked in on by your form teacher when they call each week.

All other subjects are 'Extended Curriculum' and they should be done after you have finished the Core Curriculum tasks for the day. You should plan to do work in different subjects each day. We recommend that pupils do one hour per week in each of the 'extended curriculum' subjects.

We recognise that it is not possible for all pupils to complete all work given the exceptional circumstance. Please speak with your form tutor about the work if it is becoming unmanageable.
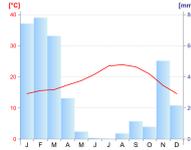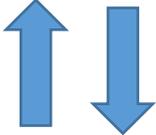
Aim high   *Have integrity*   *Be kind*   *Model determination*

Lesson 5: What is the climate in the UK?

Glossary

Lesson 5 – What is the climate of the UK?			
Climate – the average weather conditions of a place each month, calculated using 30+ years' data.		**Range** – difference between highest and lowest, e.g. if highest and lowest June temperatures are 28 and 8, the range = 20.	MAX - MIN = Range
Climate graph – a bar and line graph showing the average temperature and rainfall of a place for each month of the year.		**Minimum** – the lowest **Maximum** – the highest e.g. the minimum temperature recorded in the UK is -27.2°C and the maximum is 38.7°C.	

Activity 1 – Weather and Seasons

What would you expect the average weather conditions in your local area to be in **January, April, July** and **October**?

In January I expect the weather in (*location*) to be…

In April I expect the weather in (*location*) to be…

In July I expect the weather in (*location*) to be…

In October I expect the weather in (*location*) to be…

Activity 2 – What is climate?

Today we are going to learn what climate means and find out about the UK's climate. Climate and weather are closely related.

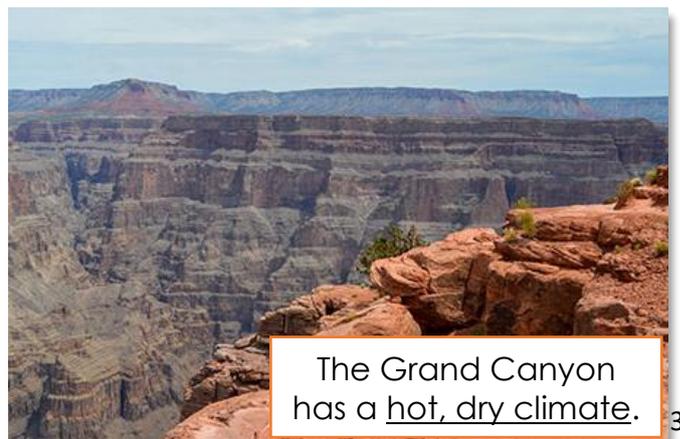As we know, **weather** is the **daily** atmospheric conditions, like sunny or hot.

Climate means the average weather conditions of a place. Data is gathered over a long time, usually 30 years or more, and this tells us what the conditions are **usually** like in a place. For example, from long-term temperature data we can work out what the **average temperature** is in each month in a place. If your family was planning a holiday to Greece, you might look at climate data to decide the best time to visit.

When we studied fantastic landscapes earlier in the year, we looked at Greenland and the Grand Canyon. These places have very different climates – in Greenland it is very cold and rains a lot compares to the Grand Canyon, which is usually hot and dry, with little rain.

Write down the definition of climate in your books or on paper.

Greenland has a <u>cold and windy climate</u>.

The Grand Canyon has a <u>hot, dry climate</u>.

3

Are the statements below describing the weather or the climate? Remember: weather means *day-to-day conditions*; climate means *long-term averages*.

Statement	Weather or Climate?
Most months are cool in the UK.	
Tomorrow I will need a coat and umbrella.	
It is raining outside today.	
The Grand Canyon is generally hotter and drier than the UK.	

Activity 3 – Measuring climate

Now it's time to use our excellent maths skills! Studies into weather and climate need data, just like the data you took! Below is some climate data for the UK. Read through the data in the table and use it to answer the questions below. Remember that precipitation = rainfall.

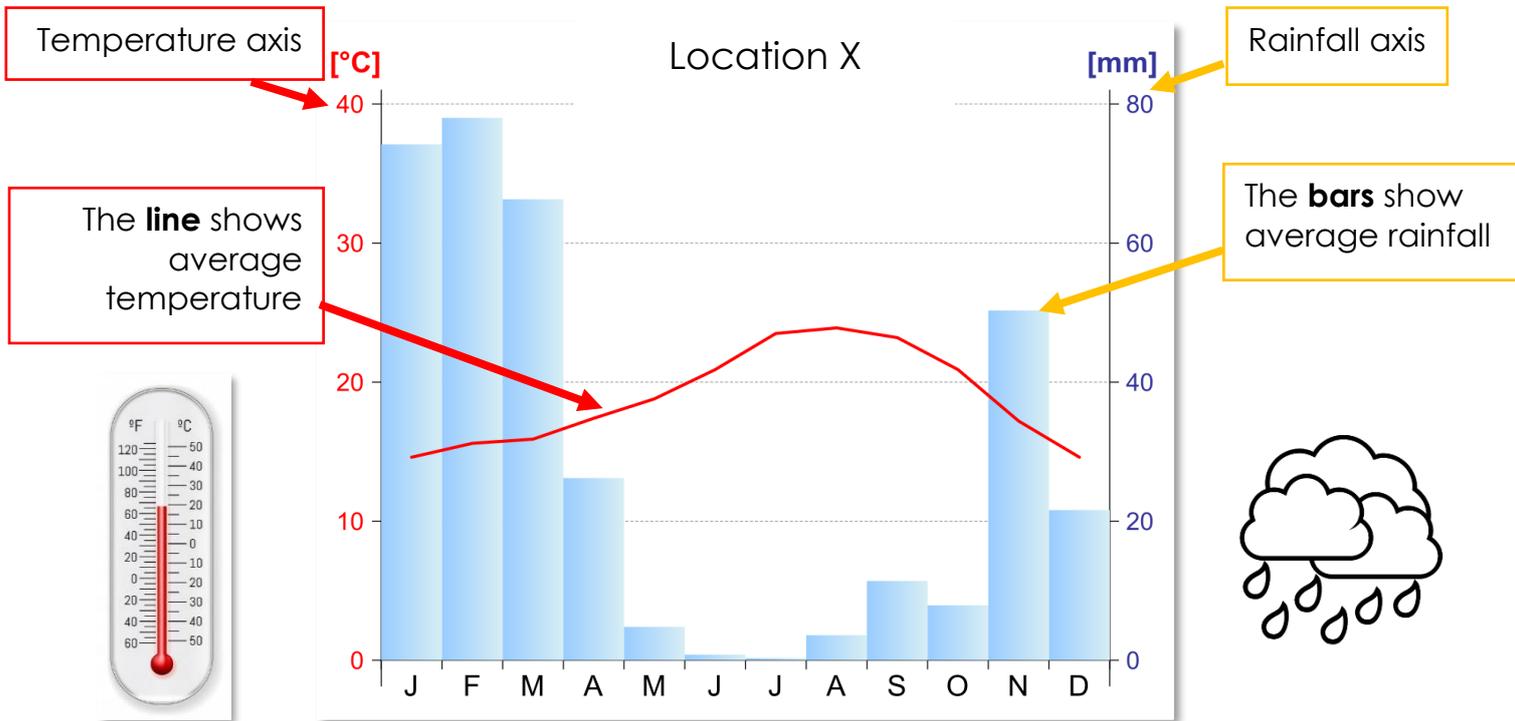|	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	**average**
average **temperature** (°Celsius)	3.2	3.3	4.8	7.0	10.0	12.8	14.6	14.4	12.3	9.1	5.7	3.9	**8.4**
average **precipitation** (mm)	111	84	80	68	69	70	83	95	93	115	112	117	**92**

1. **Hottest** and **coldest** months?

2. Is the UK's <u>temperature</u> best described as **cold, cool,** or **warm**?

3. **Wettest** and **driest** months?

4. Is the UK's <u>rainfall</u> best described as **high** or **heavy**?

TEMP (°C)	RAINFALL (mm)
<5 = cold	0-30 = low
5-15 = cool	30-60 = moderate
15-25 = warm	60-100 = high
>25 = hot	>100 = heavy

As you may have expected, the hottest month in the UK is July; it has the highest average temperature (the pink boxes). Whereas January is the coldest month; it has the lowest average temperature. Since precipitation = rainfall, we can see that December has the highest average rainfall and that April has the least. Using the averages, we can also work out that the UK has a cool climate, with high rainfall.

Activity 4 – What is a climate graph

Let's use this data to make a graph. That way, it will be clearer and easier to read. The graph we're going to use is a **climate graph**. A climate graph shows average **temperature** and **precipitation** for a place, using a bar and line graph.

Temperature axis

The **line** shows average temperature

Rainfall axis

The **bars** show average rainfall

Location X

Using a climate graph, it's even easier to see that the hottest month in location X is August and that February is the wettest.

Now it's your turn to read the graph. Remember that the axis for temperature is on the left (°C) and rainfall is on the right (mm).

1. What is the temperature in January?

2. What is the driest month?

3. What is the rainfall in December?

Activity 5 – The climate of the UK

The UK has a **mild climate**, meaning that the weather is rarely extreme. It is usually cool or warm. We should remember that climates vary **within** the UK. For example, it will be **cooler** or **wetter** in some places (e.g. north Scotland) and **hotter** or **drier** in others (e.g. southern England).

UK seasons

Spring: March to May

Summer: June to August

Autumn: September to November

Winter: December to February

Scotland in January

Brighton in July

Complete the following sentences:

1. *The UK has a **mild climate**. This means…*

2. *The largest **drop in temperature** happens between the months of _____ and _____.*

3. *The months that usually have **heavy rainfall** are…*

Activity 6 – Describing the UK climate

Describe the UK's climate, and how our climate changes throughout the year.

Use the <u>writing frame</u> below to help you! **Write in full sentences.**

What is the climate in the UK?
Introduction – How do we describe the UK climate?
The UK has a m_____ climate. This means that it is generally cool or warm. It is r_____ extremely hot (unlike places close to the equator) or extremely c_____ (unlike places close to the Poles). Another word that is commonly used to describe a mild climate is 'temperate'.
Main idea one – What is the temperature like in the UK? (Key vocabulary –average temperature, cool, cold, 5 – 15°C, January, June, July, August, Spring, Autumn, 3.2°C)
In most months of the year the UK's temperature is c_____, meaning that _____. The summer months are _____, _____ and _____. The highest temperature _____ _____.   In the seasons of S_____ and A_____, temperatures are _____ _____. It is coldest in J_____, with an average temperature of _____°C.

6

Main idea two – What is the precipitation like in the UK?
(key vocabulary – high, rain, snow, sleet. hail, October, December, April, May, average rainfall, 92mm, Scotland, rainy, colder, Brighton, warmer)

Precipitation includes any form of water that falls from the sky, for example
_____. Rainfall is

h_____ for most months in the UK, _____

_____. The lowest

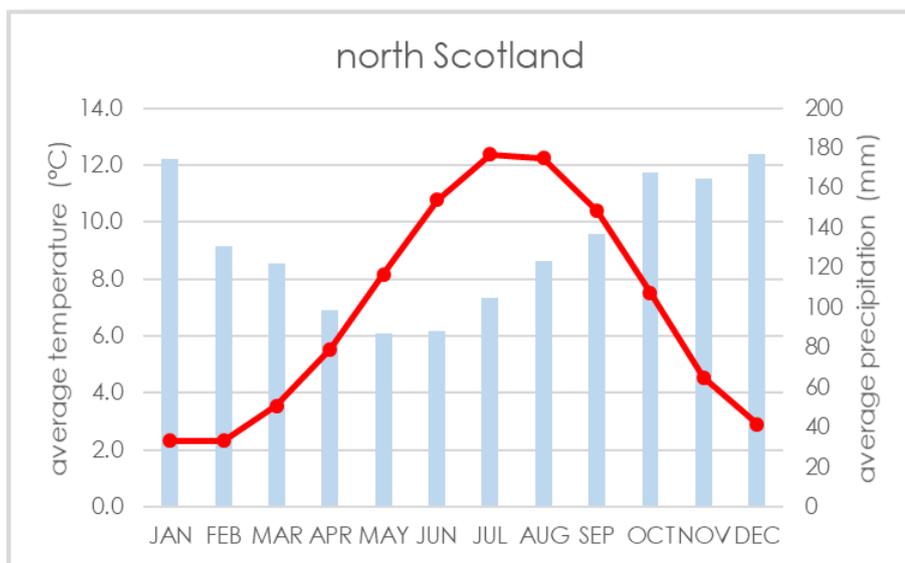rainfall occurs in _____ and M_____ and the highest between

O_____ and _____.

However, climates vary within the UK. For example, _____

_____

_____

_____

Activity 7 – Check what you have learned today.

Just to recap, read the climate graph below and answer the questions.

1. What do **bars** indicate on a climate graph?
2. How much **rain** does the North of Scotland receive in **October**?
3. What is the in average **temperature** in **July**?
   a) 12°C
   b) 180°C
   c) 4°C

Lesson 5: What is the climate in the UK?

Glossary

Lesson 5 – What is the climate of the UK?			
Climate – the average weather conditions of a place each month, calculated using 30+ years' data.		**Range** – difference between highest and lowest, e.g. if highest and lowest June temperatures are 28 and 8, the range = 20.	MAX - MIN = Range
Climate graph – a bar and line graph showing the average temperature and rainfall of a place for each month of the year.		**Minimum** – the lowest **Maximum** – the highest e.g. the minimum temperature recorded in the UK is -27.2°C and the maximum is 38.7°C.	

Activity 1 – Weather and Seasons

What would you expect the average weather conditions in your local area to be in **January, April, July** and **October**?

In January I expect the weather in London to be cold and windy. I would expect it to rain a lot and maybe even snow!

In April I expect the weather in London to be warmer than in January but I might still wear a jumper. I would still expect a bit of rain but less than January and it definitely wouldn't snow.

In July I expect the weather in London to be very hot. I would not expect much rain or wind.

In October I expect the weather in London to be very windy. I would expect more rain that July or April and would expect it to start getting colder as well.

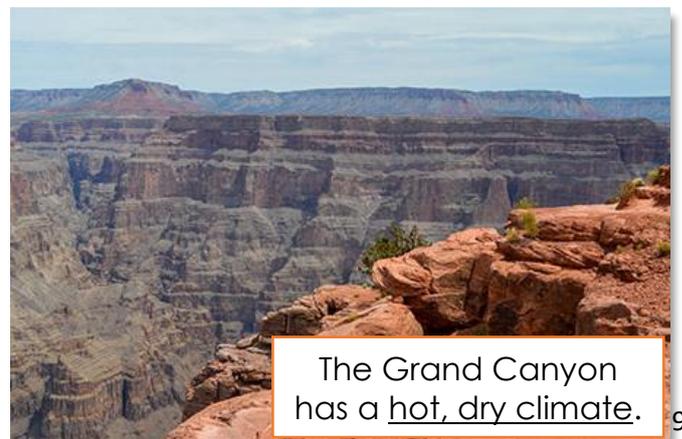## Activity 2 – What is climate?

Today we are going to learn what climate means and find out about the UK's climate. Climate and weather are closely related.

As we know, **weather** is the **daily** atmospheric conditions, like sunny or hot.

Climate means the average weather conditions of a place. Data is gathered over a long time, usually 30 years or more, and this tells us what the conditions are **usually** like in a place. For example, from long-term temperature data we can work out what the **average temperature** is in each month in a place. If your family was planning a holiday to Greece, you might look at climate data to decide the best time to visit.

When we studied fantastic landscapes earlier in the year, we looked at Greenland and the Grand Canyon. These places have very different climates – in Greenland it is very cold and rains a lot compares to the Grand Canyon, which is usually hot and dry, with little rain.

Write down the definition of climate in your books or on paper.

Greenland has a <u>cold and windy climate</u>.

The Grand Canyon has a <u>hot, dry climate</u>.

Are the statements below describing the weather or the climate? Remember: weather means *day-to-day conditions*; climate means *long-term averages*.

Statement	Weather or Climate?
Most months are cool in the UK.	Climate
Tomorrow I will need a coat and umbrella.	Weather
It is raining outside today.	Weather
The Grand Canyon is generally hotter and drier than the UK.	Climate

Activity 3 – Measuring climate

Now it's time to use our excellent maths skills! Studies into weather and climate need data, just like the data you took! Below is some climate data for the UK. Read through the data in the table and use it to answer the questions below. Remember that precipitation = rainfall.

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	**average**
average **temperature** (°Celsius)	3.2	3.3	4.8	7.0	10.0	12.8	14.6	14.4	12.3	9.1	5.7	3.9	**8.4**
average **precipitation** (mm)	111	84	80	68	69	70	83	95	93	115	112	117	**92**

5. **Hottest** and **coldest** months?
   Hottest = July
   Coldest = January

6. Is the UK's <u>temperature</u> best described as **cold, cool,** or **warm**?
   The UK's temperature is cool

7. **Wettest** and **driest** months?
   Wettest = December
   Driest = April

8. Is the UK's <u>rainfall</u> best described as **high** or **heavy**?
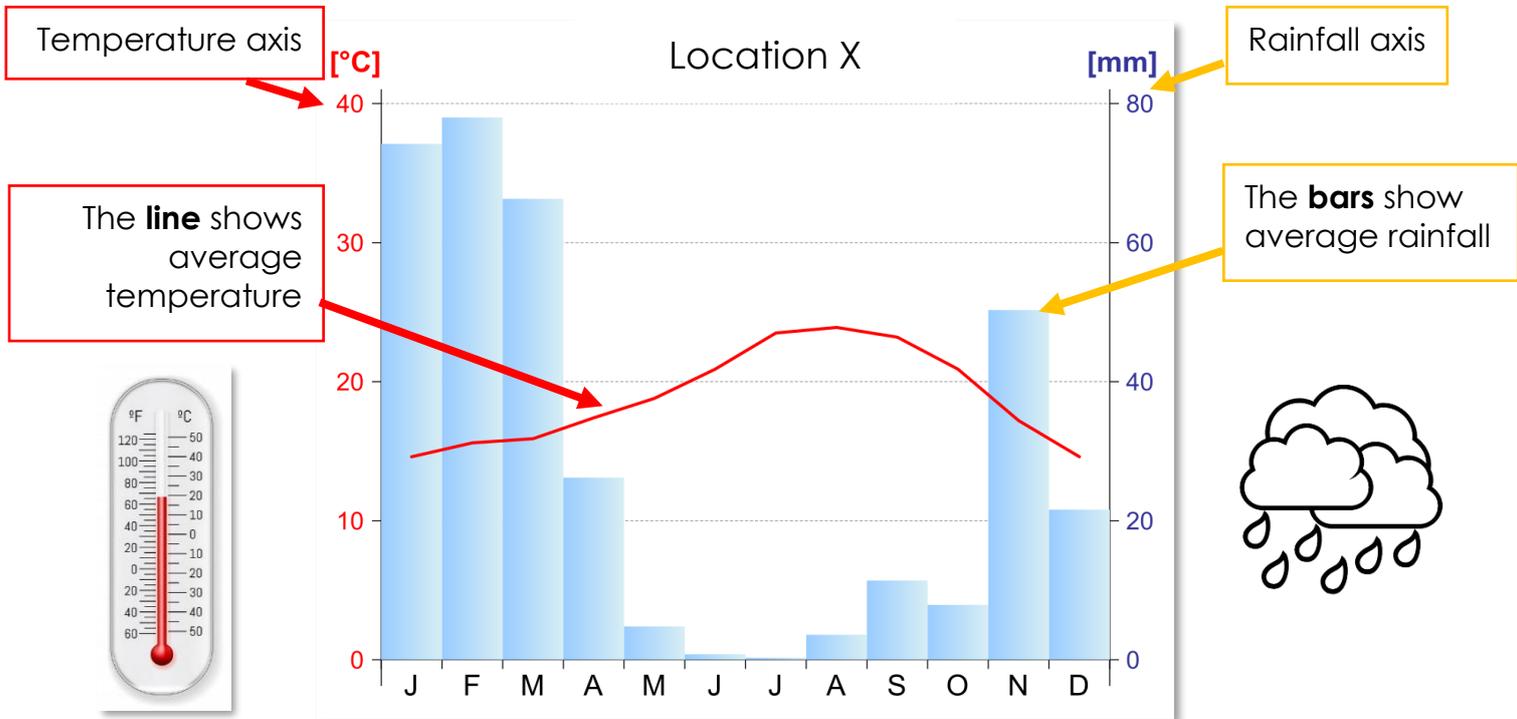   The UK's rainfall is best described as high.

TEMP (°C)	RAINFALL (mm)
<5 = cold	0-30 = low
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15-25 = warm	60-100 = high
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As you may have expected, the hottest month in the UK is July; it has the highest average temperature (the pink boxes). Whereas January is the coldest month; it has the lowest average temperature. Since precipitation = rainfall, we can see that December has the

highest average rainfall and that April has the least. Using the averages, we can also work out that the UK has a cool climate, with high rainfall.

Activity 4 – What is a climate graph

Let's use this data to make a graph. That way, it will be clearer and easier to read. The graph we're going to use is a **climate graph**. A climate graph shows average **temperature** and **precipitation** for a place, using a bar and line graph.

Using a climate graph, it's even easier to see that the hottest month in location X is August and that February is the wettest.

Now it's your turn to read the graph. Remember that the axis for temperature is on the left (°C) and rainfall is on the right (mm).

4. What is the temperature in January?
   around 37°C

5. What is the driest month?
   July

6. What is the rainfall in December?
   around 22 mm.

Activity 5 – The climate of the UK

The UK has a **<u>mild climate</u>**, meaning that the weather is rarely extreme. It is usually cool or warm. We should remember that climates vary **within** the UK. For example, it will be **cooler** or **wetter** in some places (e.g. north Scotland) and **hotter** or **drier** in others (e.g. southern England).

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UK seasons

Spring: March to May

Summer: June to August

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Winter: December to February

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Scotland in January

Brighton in July

Complete the following sentences:

1. *The UK has a **mild climate**. This means* that the weather in the UK is rarely extreme. It is usually cool or warm.

2. *The largest **drop in temperature** happens between the months of* October *and* November.

3. *The months that usually have **heavy rainfall** are* October, November, December and January.

Activity 6 – Describing the UK climate

Describe the UK's climate, and how our climate changes throughout the year.

Model Answer – Describe the UK's climate.

The UK has a mild climate. This means that it is generally cool or warm. It is rarely extremely hot (unlike places close to the equator) or extremely cold (unlike places close to the Poles). Another word that is commonly used to describe a mild climate is 'temperate'.

In most months of the year the UK's temperature is cool, meaning that the average temperature is between 5 – 15°C. The summer months are June, July and August Average. The highest temperature occurs in July, with an average of 14.6°C.

In the seasons of Spring and Autumn, temperatures are best described as cold and cool, ranging from around 4-10°C. It is coldest in January, with an average temperature of 3.2°C.

Precipitation includes any form of water that falls from the sky, for example rain, hail, sleet and snow. Rainfall is high for most months in the UK, with an average rainfall of 92mm per month. The lowest rainfall occurs in April and May and the highest between October and December.

However, climates vary within the UK. For example, in Scotland it is colder and rainier the UK average. In southern regions like Plymouth and Brighton, it is usually warmer than the UK average and there is slightly less rain.

Activity 7 – Check what you have learned today

Just to recap, read the climate graph below and answer the questions.

4. What do **bars** indicate on a climate graph? Rainfall
5. How much rain does the North of Scotland receive in **October**? 110 mm
6. What is the **temperature** in **July**?
     a) 12°C
     b) 180°C
     c) 4°C

north Scotland