1: LONDON
2 : EDMONTON
3 : ARCHANGEL
4 : SINGAPORE
5 : CALCUTTA
6 : CAIRO
7 : ATHENS

| $\mathbf{1}$ | $\mathbf{J}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{A}$ | $\mathbf{M}$ | $\mathbf{J}$ | $\mathbf{J}$ | $\mathbf{A}$ | $\mathbf{S}$ | $\mathbf{O}$ | $\mathbf{N}$ | $\mathbf{D}$ |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Temp. | 4 | 5 | 7 | 9 | 12 | 16 | 18 | 17 | 15 | 11 | 8 | 5 |
| Precip. | 54 | 40 | 37 | 37 | 46 | 45 | 57 | 59 | 49 | 57 | 64 | 48 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2 |  |  |  |  |  |  |  |  |  |  |  |  |
| Temp. | -15 | -10 | -5 | 4 | 11 | 15 | 17 | 16 | 11 | 6 | -4 | -10 |
| Precip. | 25 | 19 | 19 | 22 | 43 | 77 | 89 | 78 | 39 | 17 | 16 | 25 |


| $\mathbf{3}$ | $\mathbf{J}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{A}$ | $\mathbf{M}$ | $\mathbf{J}$ | $\mathbf{J}$ | $\mathbf{A}$ | $\mathbf{S}$ | $\mathbf{O}$ | $\mathbf{N}$ | $\mathbf{D}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Temp. | -16 | -14 | -9 | 0 | 7 | 12 | 15 | 14 | 8 | 2 | -4 | -11 |
| Precip. | 31 | 19 | 25 | 29 | 42 | 52 | 62 | 56 | 63 | 63 | 47 | 41 |


| 4 | J | F | $\mathbf{M}$ | $\mathbf{A}$ | $\mathbf{M}$ | $\mathbf{J}$ | $\mathbf{J}$ | $\mathbf{A}$ | $\mathbf{S}$ | $\mathbf{O}$ | $\mathbf{N}$ | $\mathbf{D}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Temp. | 26 | 27 | 28 | 28 | 28 | 28 | 28 | 27 | 27 | 27 | 27 | 27 |
| Precip. | 252 | 173 | 193 | 188 | 173 | 173 | 170 | 196 | 178 | 208 | 254 | 257 |


| $\mathbf{5}$ | $\mathbf{J}$ | $\mathbf{F}$ | $\mathbf{M}$ | $\mathbf{A}$ | $\mathbf{M}$ | $\mathbf{J}$ | $\mathbf{J}$ | $\mathbf{A}$ | $\mathbf{S}$ | $\mathbf{O}$ | $\mathbf{N}$ | $\mathbf{D}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Temp. | 20 | 22 | 27 | 30 | 30 | 30 | 29 | 29 | 29 | 28 | 27 | 27 |
| Precip. | 10 | 31 | 36 | 43 | 140 | 297 | 325 | 328 | 252 | 114 | 20 | 5 |


| 6 | J | F | $\mathbf{M}$ | $\mathbf{A}$ | $\mathbf{M}$ | $\mathbf{J}$ | $\mathbf{J}$ | $\mathbf{A}$ | $\mathbf{S}$ | $\mathbf{O}$ | $\mathbf{N}$ | $\mathbf{D}$ |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| Temp. | 13 | 15 | 18 | 21 | 25 | 28 | 28 | 28 | 26 | 24 | 20 | 15 |
| Precip. | 5 | 5 | 5 | 3 | 3 | 2 | 0 | 0 | 1 | 2 | 3 | 5 |
| 7 |  |  |  |  |  |  |  |  |  |  |  |  |
| Temp. | 10 | 10 | 12 | 16 | 20 | 25 | 28 | 28 | 24 | 20 | 15 | 11 |
| Precip. | 62 | 37 | 37 | 23 | 23 | 14 | 6 | 7 | 15 | 51 | 56 | 71 |

## 7 WORLD CLIMATES

There are many more than 7 climate types across the world. The names and number of climates depends on which classification you are looking at and how broad or narrow the classification is. These 7, however, show a variety of climates from tropical to temperate to polar, and very humid to very dry.
They should give a good understanding of the complexity of world climates.

For each climate :- (Note : For London and Calcutta (Kolkata) go to Climate examples where answers are located)

1. Draw a climate graph on the outlines provided. London and Calcutta have been done to show you how to complete a climate graph. Although the 7 climates are very different it is best to draw them on the same scales to allow easy comparisons.
2. Calculate the Mean Annual Temperature in degrees Celsius (C). Add each of the mean monthly temperatures together and divide by 12,
3. State the warmest and coldest months and give their temperatures.
4. Calculate the Annual Temperature Range, the difference between the warmest and coldest mean monthly temperatures.
5. On each graph draw a horizontal line at 0 degrees Celsius (freezing point) and at 6 degrees Celsius (the temperature above which plants grow)
6. Calculate the length of the Frost Free Period and the Growing Season in months and in approximate days (remember frosts may occur in months when the mean temperature is just above 0 degrees).
7. Calculate the Total Annual Rainfall (precipitation). Add all the monthly precipitation totals together.
8. How is the precipitation spread throughout the year? Is there a summer maximum (more in the warmer months), a winter maximum, or is the precipitation fairly evenly spread throughout the year?
9. Calculate the percentage of the precipitation that falls in the months April to September (inclusive). These are the summer months in the northern hemisphere. Add up the rainfall for the months April to September and divide this by the Total Annual Rainfall, multiply by 100 to create a percentage (\%).
10. Use the climate graph and the answers to the above questions to write a detailed description of the main features of the climate. Try to identify it as Tropical or Temperate or Polar, and Humid or Dry.


Af: Tropical - Rainforest
Am: Tropical - Monscon
Aw: Tropical - Savanna
BWh: Arid - Desert Hot
BWk: Arid - Desert Cold
BSh: Arid - Steppe Hot
BSk: Arld - Steppe Cold
Csa: Temperate - Dry Hot Summer
Csb: Temperate - Dry Warm Summer
Cwa: Temperate - Dry Winter Hot Summer
Cwb: Temperate - Dry Winter Warm Summer
Cwc: Temperate - Dry Winter Cold Summer
Cfa: Temperate - Hot Summer Without Dry Season
Cfb: Temperate - Warm Summer Without Dry Season
Cfc: Temperate - Cold Summer Without Dry Season

Dsa: Cold - Dry Hot Summer
Dsb: Cold - Dry Warm Summer
Dsc: Cold - Dry Cold Summer
Dsd: Cold - Dry Summer Very Cold Winter
Dwa: Cold - Dry Winter Hot Summer
Dwb: Cold - Dry Winter Warm Summer
Dwc: Cold - Dry Winter Cold Summer
Dwd: Cold - Dry Winter Very Cold Winter
Dfa: Cold - Hot Summer Without Dry Season
Dfb: Cold - Warm Summer Without Dry Season
Dfc: Cold - Cold Summer Without Dry Season
Dfd: Cold - Very Cold Winter Without Dry Season
ET: Polar - Tundra
EF: Polar - Frost

