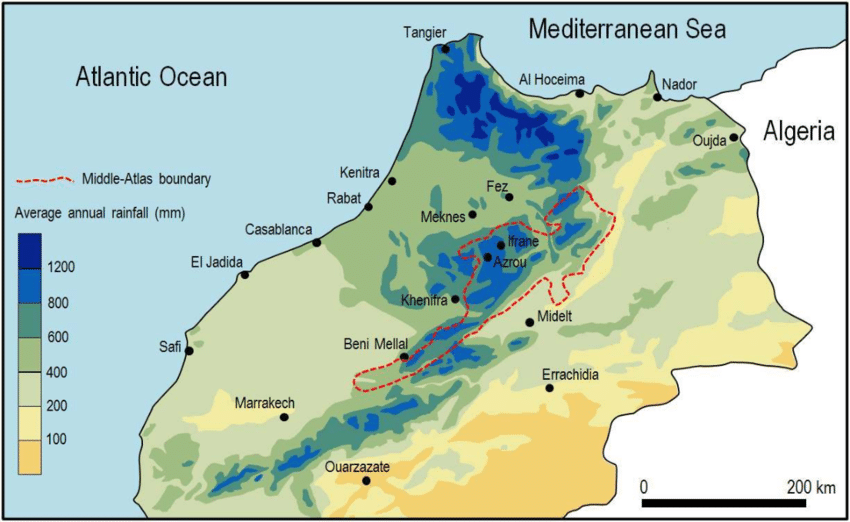
Hot Deserts: an introduction

Use the PowerPoint presentation or the internet to help you with the following activities.

1. On Figure 1 label the Atlas Mountains and the Sahara Desert.

**Figure 1 Rainfall in Morocco**



<https://www.researchgate.net/figure/Spatial-distribution-of-average-annual-rainfall-1961-1990-in-northern-Morocco_fig1_324695640>

1. Describe the pattern of rainfall in Morocco.

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1. Figure 2 below shows a typical desert landscape in Morocco.
2. What name is given to a bare, rocky desert such as this? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. What type of desert is known as ‘erg’? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. What name is given to the angular fragments of rock? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. What process is responsible for their angular shape? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
6. Suggest evidence that water occasionally flows over the land (what’s missing?).

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A picture containing outdoor, sky, nature, mountain

Description automatically generated

1. Look at Figure 2. Notice that there are a few trees in the far distance. Suggest why these trees are growing in such an arid (dry) landscape.

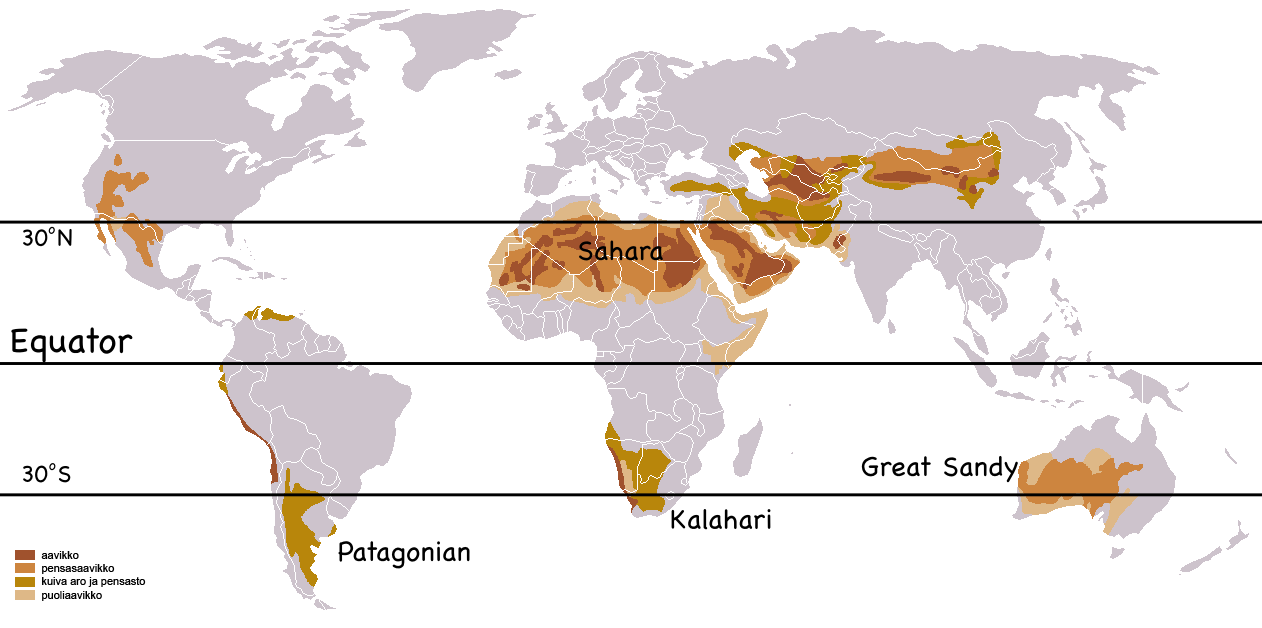
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1. Look at Figure 3, which shows the world’s hot deserts.
2. Use an atlas or the internet to label the following deserts on the map.

* Atacama
* Mojave
* Thar
* Gobi
* Arabian

1. Locate and label Morocco.

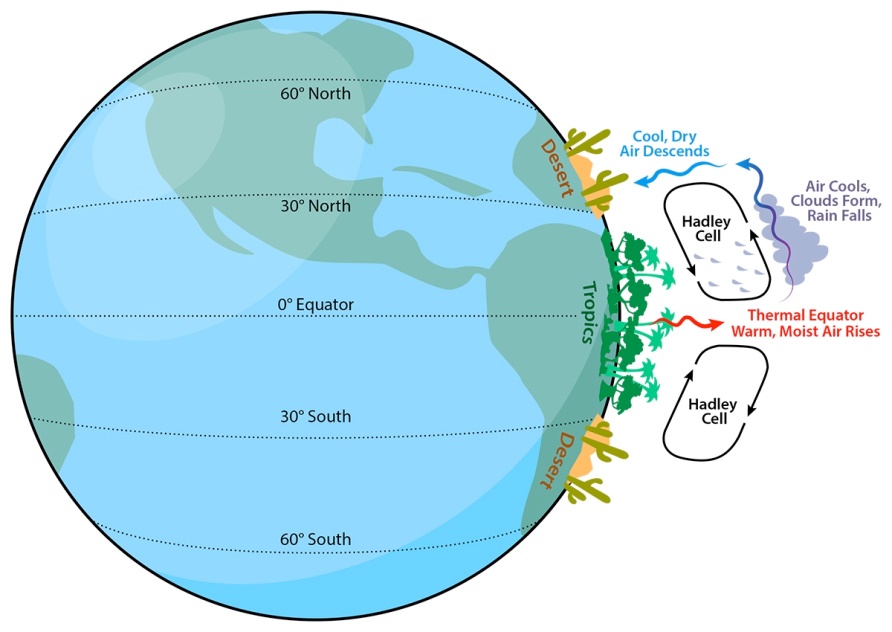
**Figure 3 The world’s hot deserts**



<https://montessorimuddle.org/2011/04/21/global-atmospheric-circulation-and-biomes/>

1. Annotate Figure 4 below to explain why hot deserts are arid (dry).

**Figure 4 Atmospheric circulation and location of hot deserts**

(https://askabiologist.asu.edu/explore/desert)

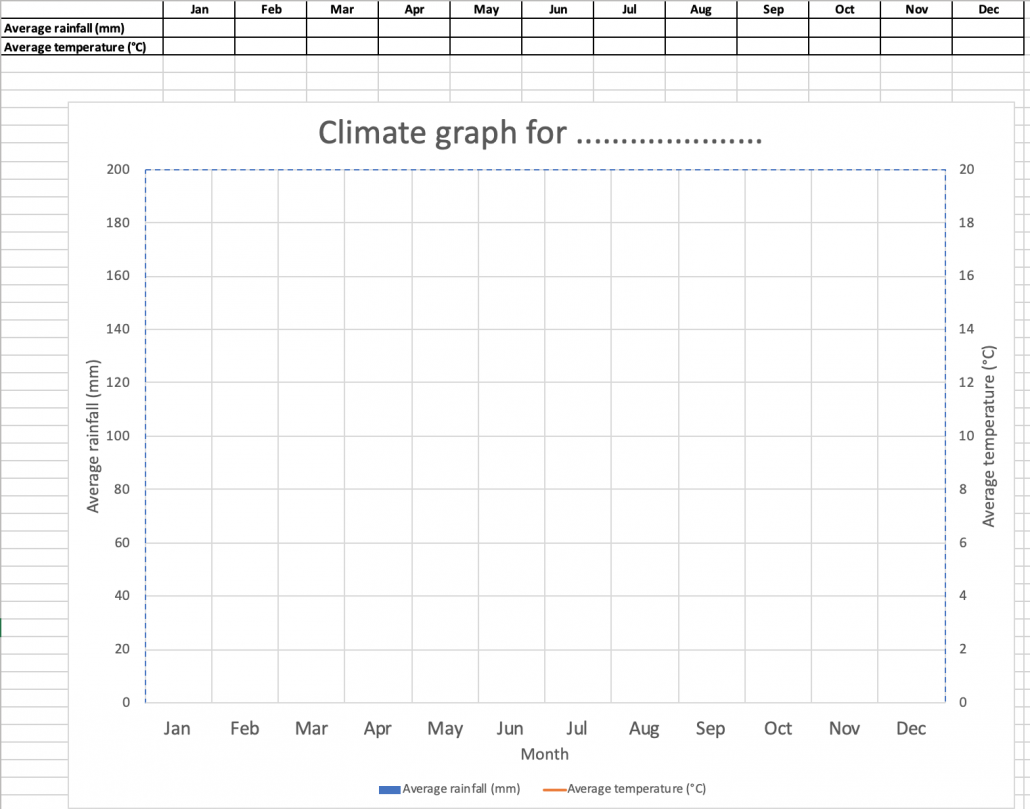
1. Figure 5 provides climate data for Ouarzazate, a town on the southern side of the Atlas Mountains and on the northern edge of the Sahara Desert (Figure 1).
2. What is the highest average maximum temperature? \_\_\_\_ °C Month: \_\_\_\_\_\_\_\_\_\_\_\_
3. Calculate the TOTAL ANNUAL RAINFALL \_\_\_\_\_\_\_ mm

**Figure 5 Climate data for Ouarzazate, Morocco**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **J** | **F** | **M** | **A** | **M** | **J** | **J** | **A** | **S** | **O** | **N** | **D** |
| Annual average maximum temperature (°C) | 18 | 20 | 23 | 27 | 31 | 36 | 40 | 39 | 34 | 27 | 22 | 17 |
| Annual average minimum temperature (°C) | 1 | 3 | 6 | 9 | 12 | 17 | 20 | 20 | 16 | 11 | 7 | 2 |
| Annual average rainfall (mm) | 16 | 12 | 14 | 11 | 10 | 3 | 1 | 5 | 12 | 24 | 25 | 17 |

Use the climate data in Figure 5 to construct a climate graph using the graph axes below.

* Temperature – plot points midway in each month and join with a freehand line
* Rainfall – draw bars to represent the rainfall data
* Label (or use a colour key) the temperature lines and rainfall bars



30

**Rain (mm)**

20

10

**Temp. (°C)**

40

10

20

30

1. What is the climatic evidence that Ouarzazate is located in a hot desert?

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