

Physical features of South Africa

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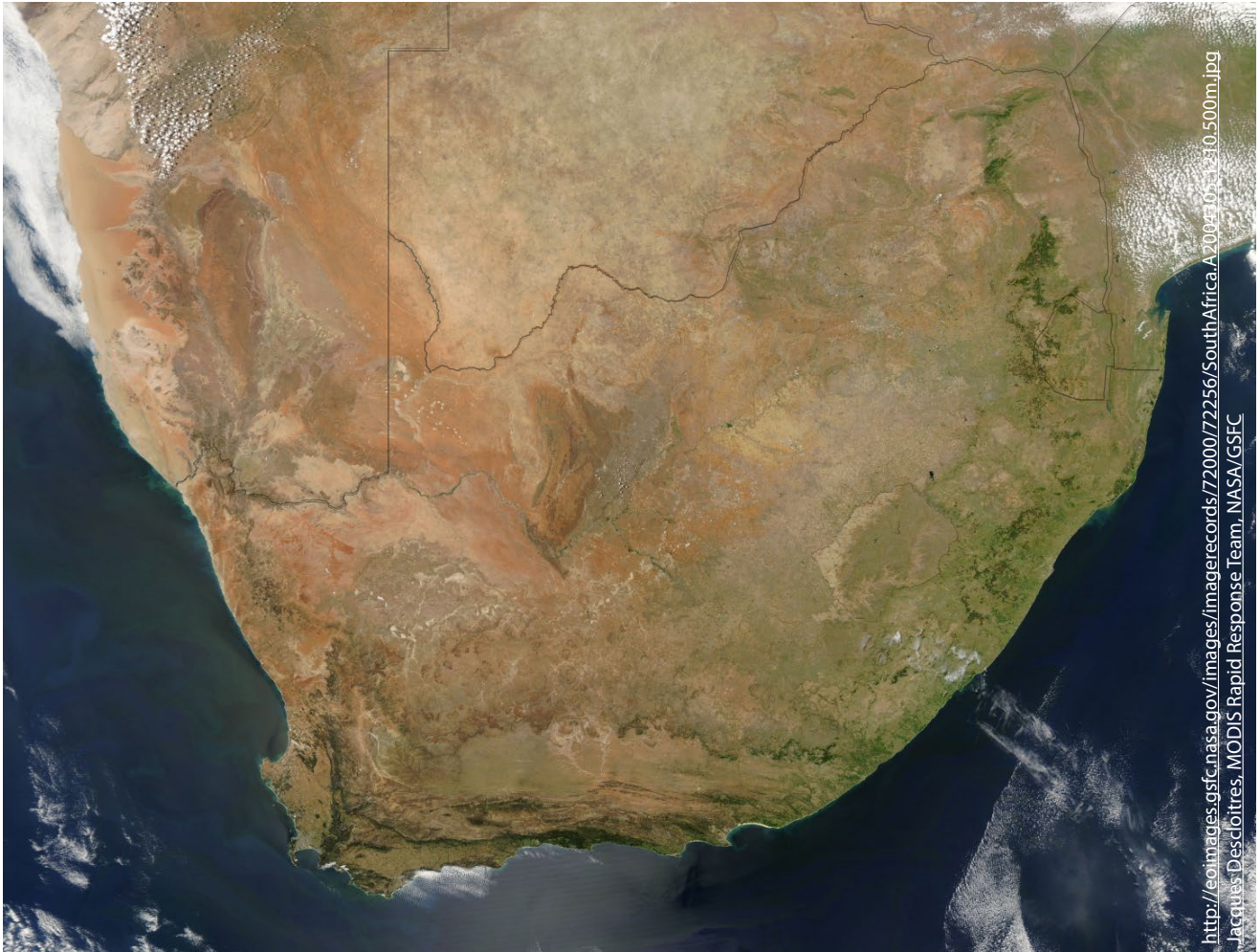


Figure 1: A satellite image of South Africa

Activity 1

Look at Figure 1, which shows a satellite image of South Africa. The borders of South Africa with our neighbouring countries can just be seen as a faint black line. See if you can mark in our boundaries on the image so that South Africa stands out clearly from our neighbours. Use Figure 2 and your atlas to help you.

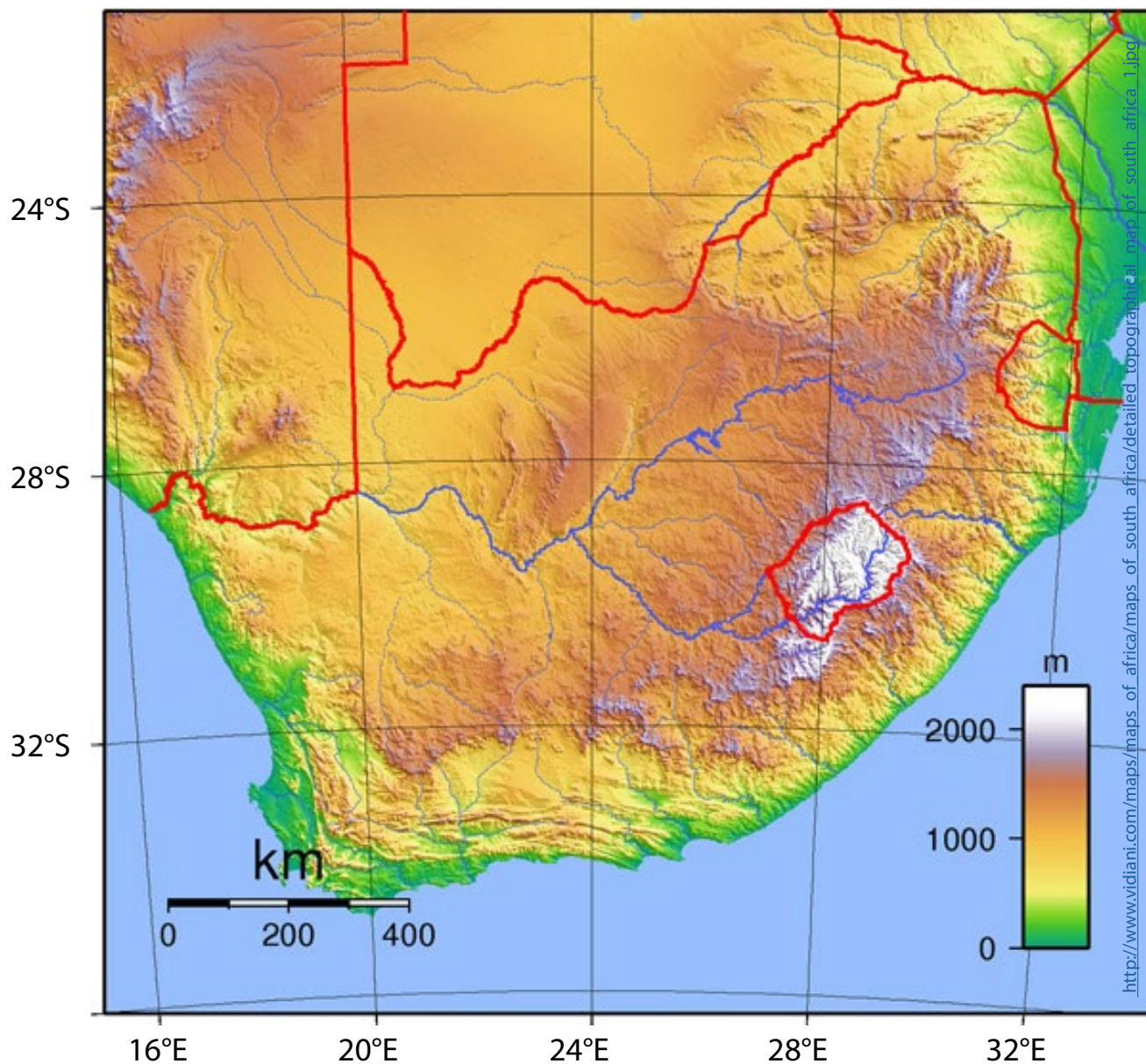


Figure 2: A map showing the relief of South Africa

This map shows the high and low places in South Africa. The green areas on the map show places that are near sea level and the white areas are the highest areas above sea level.

In Geography, "relief" refers to the highest and lowest places in an area. Mountains are usually the highest points, while valleys and other low-lying areas are the lowest.

Activity 2: Relief

What do you understand by the word 'relief' as a non-Geographical term?
Use it a sentence to show you understand the meaning.

Sea level is the average level of the sea's surface in relation to the land. All of South Africa lies above sea level, but a few places in the world lie below sea level.

Interesting facts:

- The Netherlands, or Holland, is a very low and flat country, with about a quarter of its area below sea level, and only about half of its land one metre above sea level. Huge walls, or dykes have been built to keep the sea from flooding the land.
- The lowest point on dry land is the shore of the Dead Sea, shared by Israel, the West Bank, and Jordan, 418m below sea level.
- The highest point above sea level is Mount Everest, which is 8848m above sea level
- The highest point above sea level in South Africa is Mafadi, at 3450m above sea level. It is in the Drakensberg, on the border with Lesotho.

A coastal plain is an area of flat land, lying close to the coast and not very high above sea level. South Africa does not have a large coastal plain. It is about 60km wide in the north-west and about 250 km wide in north-eastern KwaZulu-Natal. In Figure 2, the relief map of South Africa, the coastal plain is marked in green.

Activity 3: The coastal plain

On the map of South Africa below, mark in and name the coastal plain. Use Figure 2 to help you. Use your atlas to find South Africa's highest point and mark this on the map.

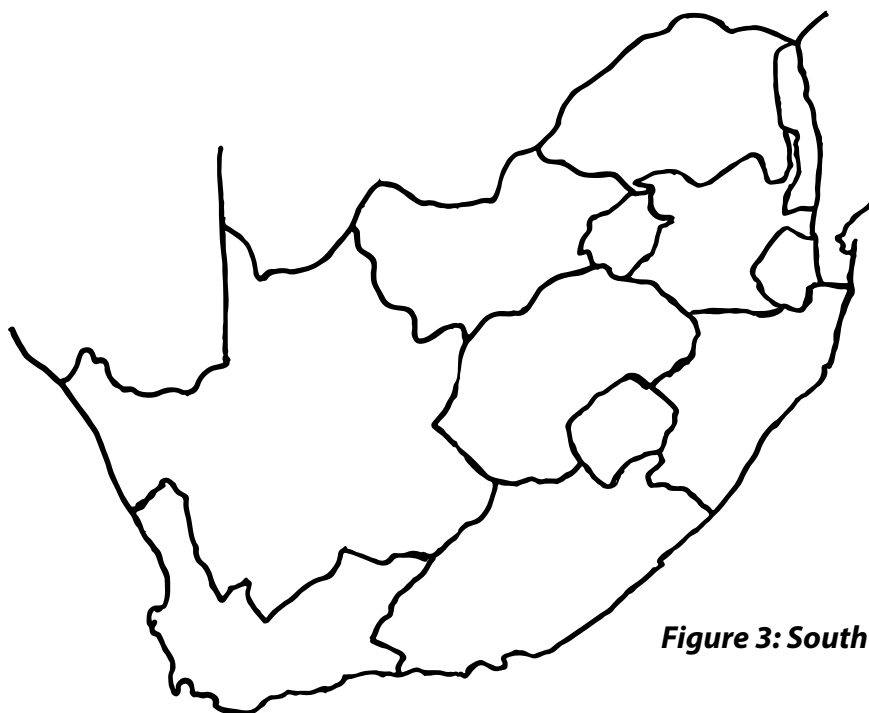


Figure 3: South Africa

A plateau is an area of fairly level high ground. Most of South Africa lies on a plateau, which is highest in the east and slopes down gently towards the west. Between the plateau and the coastal plain is the escarpment.

An escarpment is a long, steep slope, especially one at the edge of a plateau. In South Africa, the plateau is at its highest in the east where it is between 2000m and 3300m above sea level. This edge of the plateau, as the land drops sharply to the coastal plain, forms a very high, steep escarpment known as the Drakensberg Mountains.



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Figure 4: A view of the Western Cape's coastal plain looking toward the escarpment.

Activity 4: Coastal plain and escarpment

Study Figure 4, showing the coastal plain and the escarpment and write a short description of each as you see them in the photograph.

1. The coastal plain _____

2. The escarpment _____

A cross section is a side view of something when it has been cut through.



[http://commons.wikimedia.org/wiki/File:Bundt_cake_2012.jpg_\(wiki.commons\)](http://commons.wikimedia.org/wiki/File:Bundt_cake_2012.jpg_(wiki.commons))

Figure 5: A cross section through a chocolate cake.

A cross section across South Africa shows the coastal plain, the escarpment and the plateau.

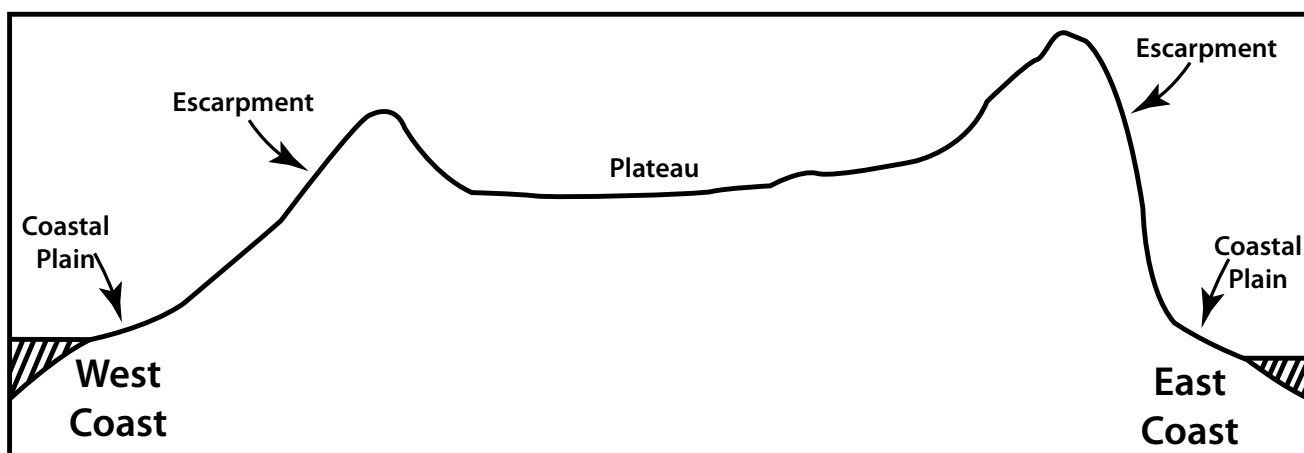


Figure 6: A cross section through South Africa.

Activity 5: Study the cross section in Figure 6

1. Name the highest part of South Africa on the cross section _____
2. Name the area that lies between the escarpment peaks _____
3. What is the name given to the area between the sea and the escarpment?

4. On which ocean does the West Coast lie? _____
5. On which ocean does the East Coast lie? _____

THE LOCATION OF PHYSICAL FEATURES

The Highveld

The wettest and most fertile portion of the plateau is the Highveld, which occupies the central eastern portion of the plateau. It is generally between 1500 - 2100m above sea level, highest on the edge of the escarpment to the east (the Drakensberg), and sloping downwards to the south and west. Much of the plateau is Highveld.

The Lowveld

The South African portion of the coastal strip between the Limpopo and Mpumalanga Drakensberg and the ocean, together with the Limpopo River Valley, is called the Lowveld. These lowlands, less than 500m above sea level, form South Africa's northern border with Botswana and Zimbabwe. This southern part of the Lowveld is bound by South Africa's border with Mozambique to the east, and the north-eastern part of the Drakensberg to the west. Kruger National Park lies within the Lowveld.



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Figure 7: A Lowveld scene on the Letaba River in the Kruger National Park.

The Great Karoo



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Figure 8: The Great Karoo near Beaufort West.

The western section of South Africa, on the inland side of the Cape Fold Mountains, is dominated by the Great Karoo, a semi-desert region that lies north of the escarpment. It is an area of flat plains and steep mountains. Separated from the Great Karoo by the Swartberg mountain range is the Little Karoo.

The Little Karoo

The Little Karoo is separated from the Great Karoo by the Swartberg mountain range. It lies in a 300km long, narrow (50km wide) valley in the Cape Fold Mountains, with the Swartberg range to the north and the Langeberg-Outeniqua range to the south. It is as arid as the Great Karoo, except along the foothills of the Swartberg, which are well-watered by streams that cascade down the mountains.



Figure 9: The Little Karoo with the Swartberg mountains in the background.

The Kalahari

The Kalahari, nearly one million square kilometers, covers much of Botswana, parts of Namibia and South Africa. It is a semi-desert, with large amounts of excellent grazing after good rains. The Kalahari supports more animals and plants than a true desert, such as the Namib Desert to the west.

Activity 6: The Kalahari

1. Describe the vegetation in Figure 10 _____

2. What evidence seen in Figure 10 shows that this area receives little rainfall?

3. Why does the Kalahari support more plants and animals than the Namib Desert?

4. Can you name the animals shown in Figure 10?



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Figure 10: The Kgalagadi Transfrontier Park in the Kalahari.

Namaqualand

This is the dry region along the north-western coastline of South Africa, partly above and partly below the Great Escarpment. The region extends into Namibia, north of the Orange River, where it is known as “Great Namaqualand”, or “Namaland”. The South African portion of Namaqualand is known as “Little Namaqualand”, and falls within the Northern Cape Province. It includes the dry Namib desert. In September, Namaqualand is world famous for its beautiful displays of wild flowers.



Figure 11: Spring wild flowers in Namaqualand.

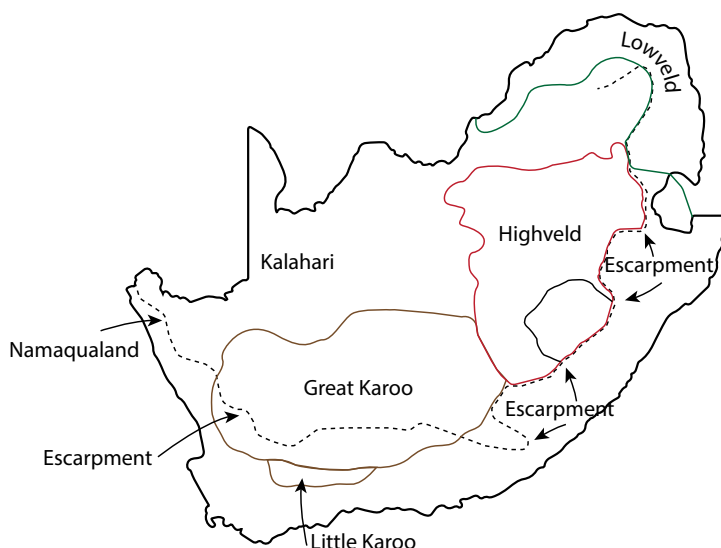


Figure 12: South Africa's regions

Activity 7: Study Figure 12 showing some of South Africa's regions.

1. Name the region that lies north and east of the escarpment.

2. In which region does Lesotho lie?

3. Which region lies between the Kalahari and the Little Karoo?

4. Which area lies west of the Kalahari?

5. Name the feature that runs from Limpopo to Namaqualand.

6. Which region lies east of the Kalahari and the great Karoo?

Physical Features

South Africa's mountains, such as the Drakensberg, are found along the escarpment. In Western Cape, however, there are mountains that do not form part of the escarpment. These are known as the Cape Fold Mountains. In the mountains there are numerous valleys and hills.

Most of South Africa's rivers rise in these mountains and there often beautiful waterfalls such as Howick Falls and Aughrabies Falls.



"Western Cape Topology" by Ogmus - Own work. Licensed under CC BY-SA 3.0 via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Western_Cape_Topology.jpg#/media/File:Western_Cape_Topology.jpg

Figure 13: The Cape Fold Mountains. The blue line marks the escarpment.



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Figure 14: Howick Falls, Mgeni River



"Aughrabies Falls, March 2008" by Zaijan (talk). - Transferred from en.wikipedia (Original text : self-made). Licensed under Public Domain via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Aughrabies_Falls,_March_2008.jpg#/media/File:Aughrabies_Falls,_March_2008.jpg

Figure 15: The Aughrabies Falls, Orange River

The best known capes in South Africa are Cape Agulhas, which is the most southerly point in Africa, and Cape Point near Cape Town. Cape Agulhas marks the boundary between the Atlantic and Indian Oceans.

Important words

Cape - a point or extension of land jutting out into water as a peninsula.

Bay - a broad inlet of the sea where the land curves inwards.

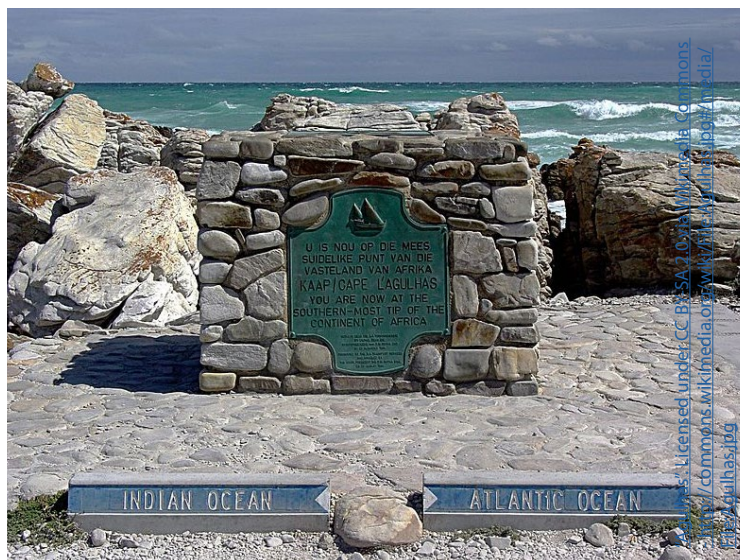
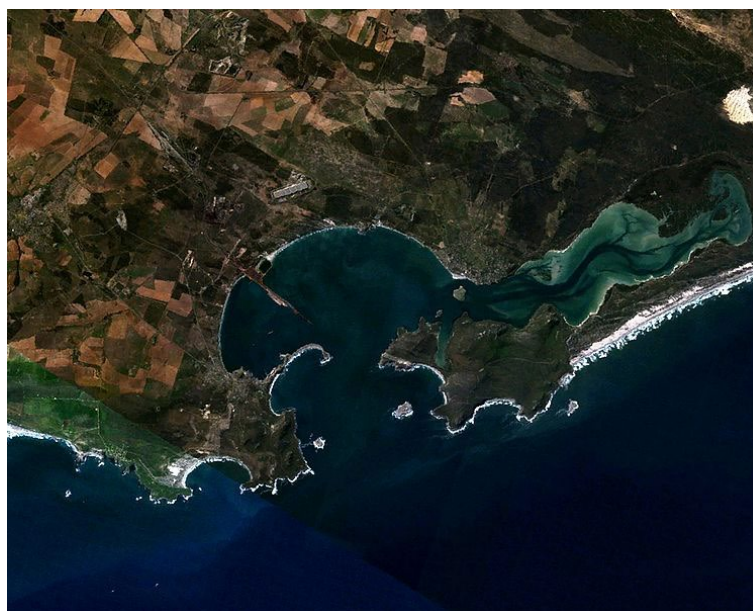


Figure 16: Cape Agulhas

South Africa's coastline is very straight and has few bays. The best known bays are Algoa Bay and Saldanha Bay.



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Figure 17: Saldanha Bay is 100km north-west of Cape Town.

THE LOCATION OF SOUTH AFRICA'S PHYSICAL FEATURES.

Table Mountain.

One of South Africa's best known landmarks is Table Mountain.

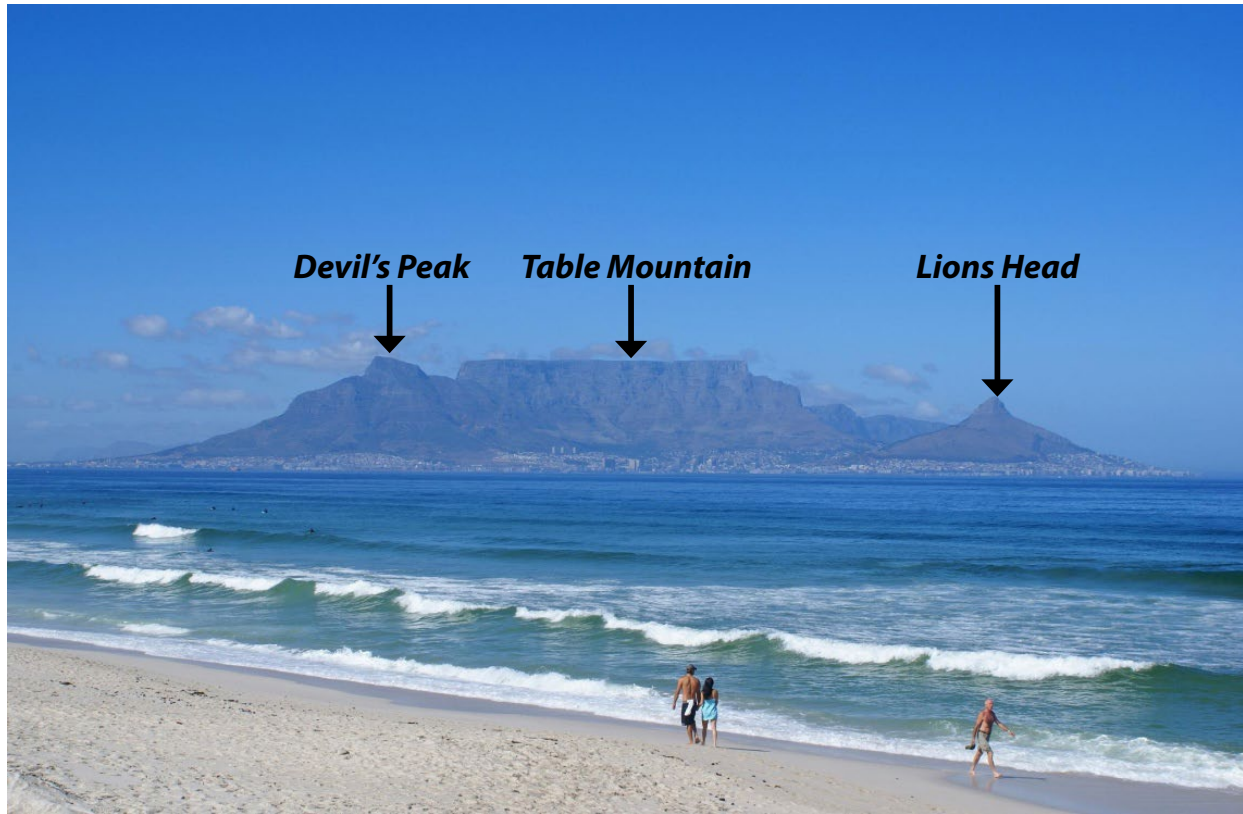


Table Mountain DanieVDM by Danie van der Merwe from Cape Town, South Africa - View of Table Mountain from Bloubergstrand. Licensed under CC BY 2.0 via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Table_Mountain_DanieVDM.jpg#/media/File:Table_Mountain_DanieVDM.jpg

Figure 18: Table Mountain photographed from Blouberg beach.

Table Mountain is one of South Africa’s most recognised features.

Activity 8: Table Mountain

1. The photograph of Table Mountain in Figure 13 was taken from Blouberg beach which lies north of Table Mountain. Is Lion’s Head east or west of Devil’s Peak? _____
2. Name the ocean visible in the photograph. _____
3. In which city is Table Mountain? _____
4. In which province is this city? _____
5. How do you think Table Mountain got its name? _____

The uKhahlamba-Drakensberg



Figure 19: The uKhahlamba-Drakensberg Park

The uKhahlamba-Drakensberg Park is a World Heritage Site in Southern Africa, covering 2428 km². The park spans parts of both South Africa, in its KwaZulu-Natal province, and Lesotho. The park includes Royal Natal National Park, a provincial park, and Drakensberg National Park, which covers part of the Drakensberg, the highest mountain in Southern Africa. On 30 November 2000, the uKhahlamba Drakensberg Park was added to the World Heritage List. It is described by the United Nations, Educational, Scientific and Cultural UNESCO as having “exceptional natural beauty”.

INTERESTING FACTS:

A UNESCO World Heritage Site is a place such as a forest, mountain, lake, island, desert, monument, building, complex, or city that is listed by the United Nations Educational, Scientific and Cultural Organization (UNESCO) as of special cultural or physical significance. South Africa has eight of the world’s official heritages. These are: iSimangaliso Wetland Park, Robben Island, Cradle of Humankind, Mapungubwe National Park, Cape Floral Region, Vredefort Dome, Richtersveld Cultural and Botanical Landscape and the uKhahlamba-Drakensberg Park.

Activity 9: The uKhahlamba–Drakensberg Park

1. During what season was the photograph in Figure 19 taken? Give reasons for your answers.

2. Using photographic evidence, describe what human activities take place in the areas covered by the photograph.

The Waterberg

The Waterberg (in Northern Sotho it is called Thaba Meetse) is a mountainous area of approximately 14500 km² in north Limpopo Province. The average height of the mountain range is 600m, with a few peaks rising up to 1400m above sea level. It is a very scenic area and has much wildlife. The area contains considerable biodiversity, including numerous

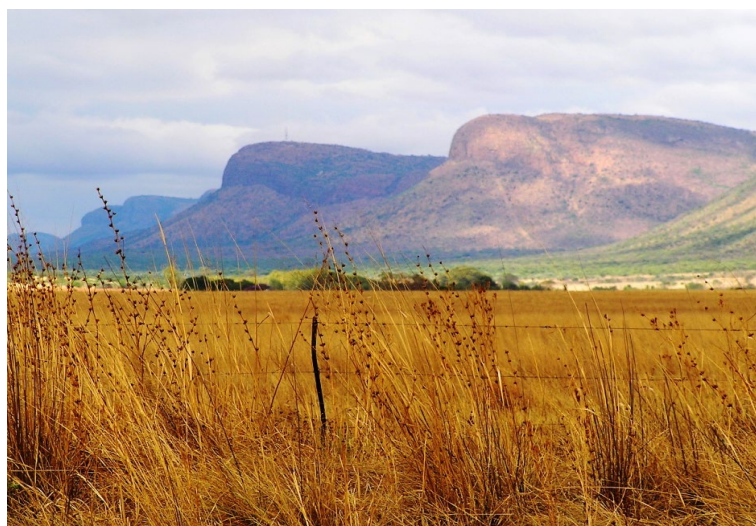


Figure 20: The Waterberg near Vaalwater

large mammal such as leopard, giraffe, and white rhino. Waterberg is the first region in the northern part of South Africa to be named as a Biosphere Reserve by UNESCO.

The Waterberg mountain range is one of the more scenic and wildlife rich areas in South Africa.

For much of the 20th Century the main economic activity was cattle ranching and maize growing. This caused much soil erosion and a lot of the original vegetation was destroyed. Then the land owners became aware of the benefits of restoring the habitat to attract and protect the original species of antelope, and other species whose numbers dropped in the cattle grazing era. Many of those old cattle farms are now wildlife reserves and eco-tourism is an important economic activity.

IMPORTANT WORDS

Biodiversity - is the variety of different types of life found on Earth.

A biosphere reserve - is an area which shows modern approaches to living and working together with nature.

Eco-tourism - is responsible travel to natural areas that conserves and protects the environment and improves the quality of life, of local people.



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Figure 21: Maize silo in Vaalwater, Waterberg

Over 50 years ago, the Waterberg area was an important maize growing area and these silos were built to store the maize before being sent away by rail. These silos are no longer in use and the railway line has been closed.

Activity 10: The Waterberg

1. The Waterberg has much biodiversity. To show you understand the meaning of the word, describe the biodiversity in a small area near your school or home.

2. Many of the cattle and maize farms in the Waterberg are now game farms where people pay money to stay and view the wildlife. Write a few lines on the advantages and disadvantages of turning maize and cattle farms into game farms.

Advantages _____

Disadvantages _____

iSimangaliso Wetland Park

The iSimangaliso Wetland Park, which used to be called Greater St Lucia Wetlands Park, was declared South Africa's first Natural World Heritage Site in 1999. It is considered South Africa's third largest park and extends from Mapelane (Cape St. Lucia) in the South, to Kozi Bay Nature Reserve in the North.

The park has 280km of near-pristine coastline and comprises of 328 000 hectares of magnificent scenery. The park has a wide range of habitats ranging from coral reefs, beaches, coastal forests, salt and fresh water marshes, to the open estuarine waters of Lake St Lucia, lush coastal plains, and the drier woodland areas. This is a remarkably beautiful place in South Africa. There is also huge biodiversity.

IMPORTANT WORDS

Pristine - in its original condition, unspoilt or unpolluted.

Estuarine - to do with an estuary. An estuary is a body of water formed where freshwater from rivers and streams flows into the ocean, mixing with the seawater.



"Rhino Killings" by Shaz Lock - Own work. Licensed under CC BY-SA 3.0 via Wikimedia Commons - http://commons.wikimedia.org/wiki/File:Rhino_Killings.jpg#/media/File:Rhino_Killings.jpg

Figure 22: A memorial to the rhinos killed near Lake St Lucia.



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Figure 23: Hippos relaxing in Lake St Lucia.

Activity II: The iSimangaliso Wetland Park

1. Why are rhinos being killed in South Africa?

2. Use an atlas to find out in which province the iSimangaliso Wetland Park is.

3. Use an atlas to find out how far is it from Durban to the iSimangaliso Wetland Park. _____ km

4. On the map of South Africa, Figure 24, mark in and name the iSimangaliso Wetland Park, Table Mountain, the Waterberg, the The uKhahlamba-Drakensberg and the cities of Cape Town, Port Elizabeth, Durban, Bloemfontein.



Figure 24: South Africa

5. **Research activity.** Identify one notable physical feature in your province and describe it as if you were to telling a friend about it who had never seen it before. If possible, take a photograph of the feature, or draw it. It could be a river, a hill, a valley or even a flat plain.

Physical feature: _____

Description: _____

Drawing or photograph: