

Map work

Name: _____

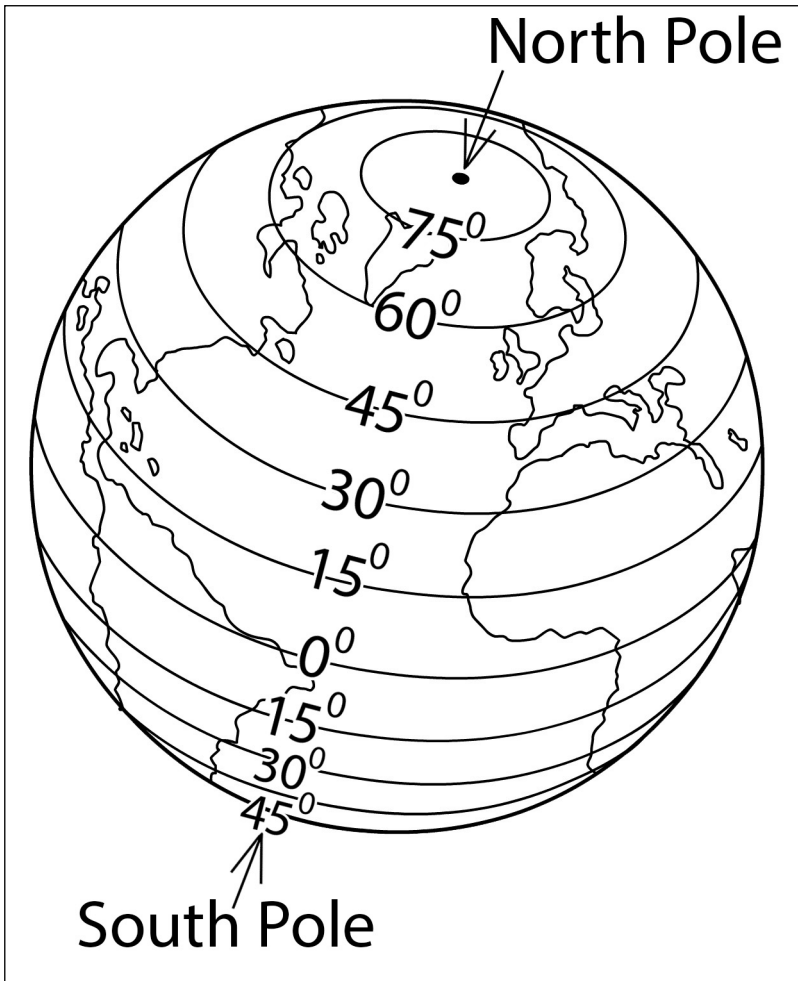


Figure 1 Lines of latitude on the globe

The position of any place on the Earth's surface can be worked out accurately by knowing the latitude and longitude of that place.

Latitude is the distance in degrees north or south of the Equator.

[http://commons.wikimedia.org/wiki/File:Latitude_\(PSF\).png](http://commons.wikimedia.org/wiki/File:Latitude_(PSF).png)

The Equator is zero degrees. This is written as 0° . You measure latitude in degrees north and south from the Equator. There are 90° of latitude north and 90° of latitude south. The North Pole is 90° north latitude and is written as 90°N . The South Pole is 90° south latitude and is written as 90°S .

Not every line of latitude is shown. To find 35°N , you would look halfway between 30°N and 40°N . In the south latitudes, you would look for 55°S between 50°S and 60°S .

Activity 1: Atlas work – Latitude

Find a map of Africa in your atlas.

1. Name three countries in Africa that the Equator passes through.

2. On which line of latitude does the city of Cairo lie? _____

3. On which line of latitude does the city of Durban lie? _____

4. Find line of latitude 34°S . Does this line lie north or south of 35°S ? _____

5. Which South African city, named after the Cape of Good Hope, has a latitude of 34°S ?

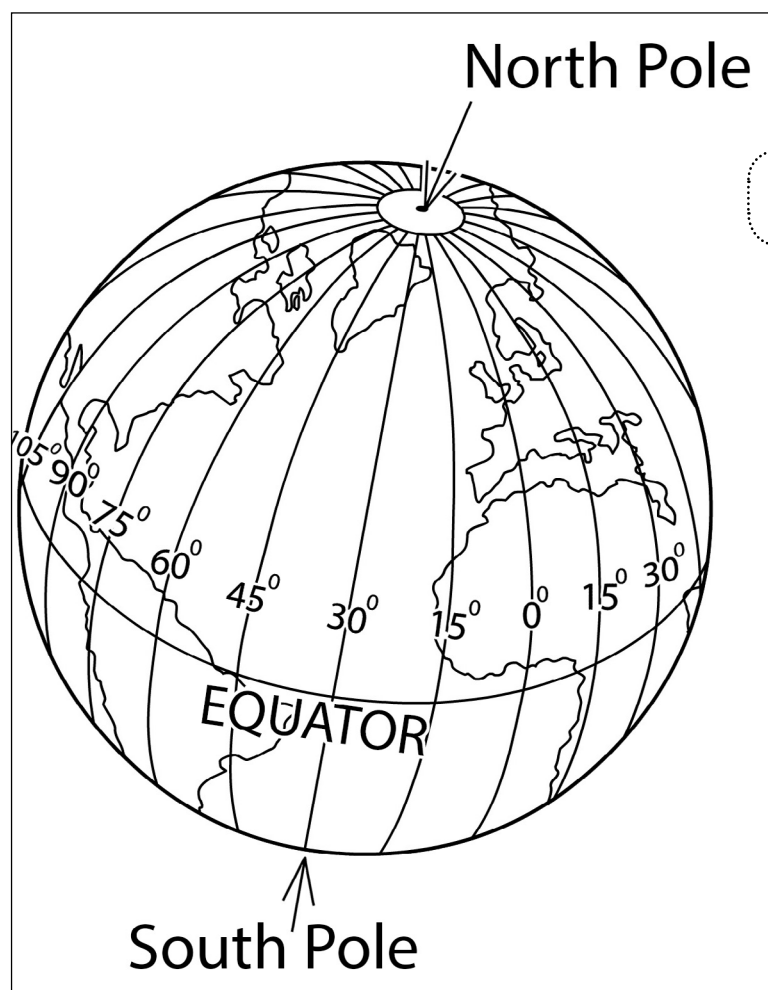
6. Name the large river that flows into the sea at 31°N . _____
7. Into which sea does this river flow? _____
8. Does most of Africa lie north or south of the Equator? _____
9. Name three countries that have 30°N passing through them.

10. Name three countries that have 20°S passing through them.

Longitude is the distance east or west of the Prime Meridian

The starting point for longitude is the Prime Meridian. A meridian is another name for a line of longitude. This line is longitude zero (0°). Longitude is measured east and west from this line. Longitude is measured in degrees. There are 180° of longitude east and 180° of longitude west. Halfway around a globe is 180° .

Between the Prime Meridian and the International Date Line, there are 180° of west longitude and 180° of east longitude. Not every line of longitude is shown. To find 35°E , you would look halfway between 30°E and 40°E .



Note: The latitude is always written first and the longitude second.

Activity 2: Atlas work – Longitude

Find a map of Africa in your atlas.

1. Find line of longitude 20°E .
Hint: it passes through South Africa near Cape Town.
To find 22°E , would you look to the east or west?

2. Does longitude 40°E pass through South Africa?

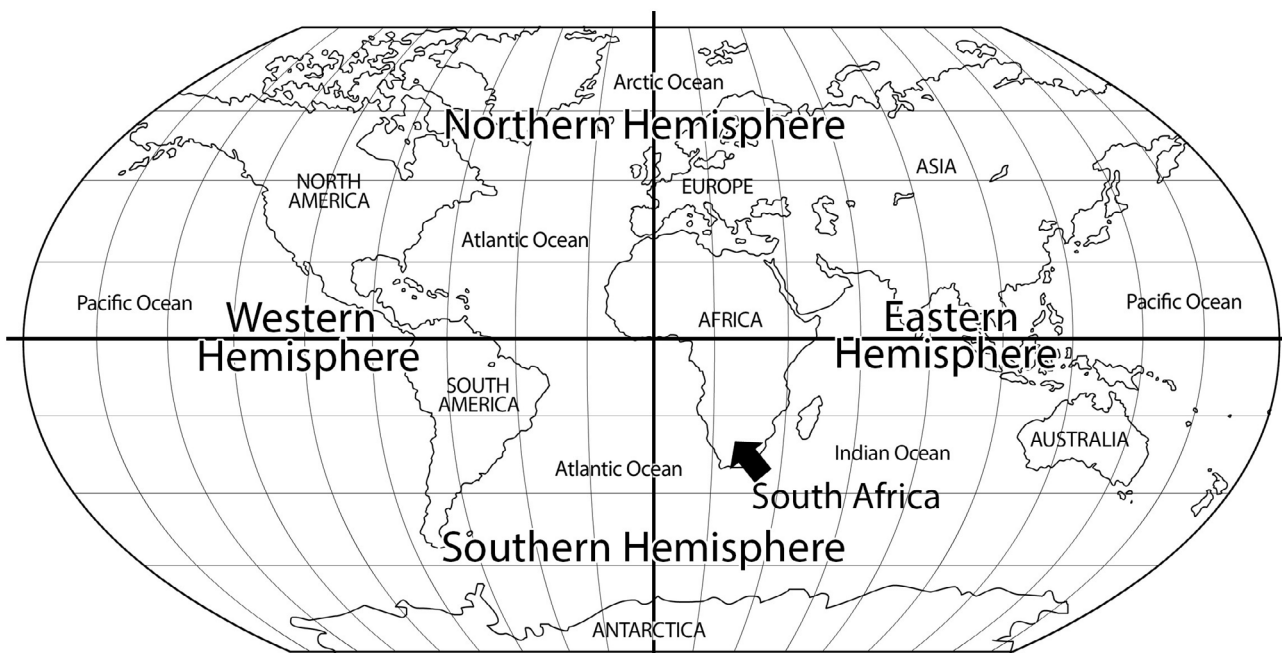
3. Does longitude 30°W pass through South Africa?

4. Is the Equator a line of longitude? _____
5. What ocean does longitude 0° pass through? _____
6. Does most of Africa lie east or west of the Prime Meridian? _____
7. Name the large river that flows into the sea at 32°E. _____
8. Into which sea does this river flow? _____
9. Name three countries that the Prime Meridian passes through them.

Activity 3: The Hemispheres

The Equator divides the world into two hemispheres, the Northern Hemisphere and the Southern Hemisphere. The Green Meridian divides the world into the Eastern and Western Hemispheres. South Africa is in the southern and eastern hemispheres.

It is difficult to show the hemispheres on a sphere. In diagrams, the world has been 'flattened' to show the whole world on a flat piece of paper.



1. In which hemispheres would you find South Africa? _____
2. In which hemispheres would you find the United States of America?

3. In which hemispheres would you find China? _____
4. In which hemispheres would you find the southern parts of South America?

5. Which continent has parts in all four hemispheres? _____

- Which western hemisphere continent lies in the northern and southern hemispheres? _____
- Which continent lies entirely in the western hemisphere? _____

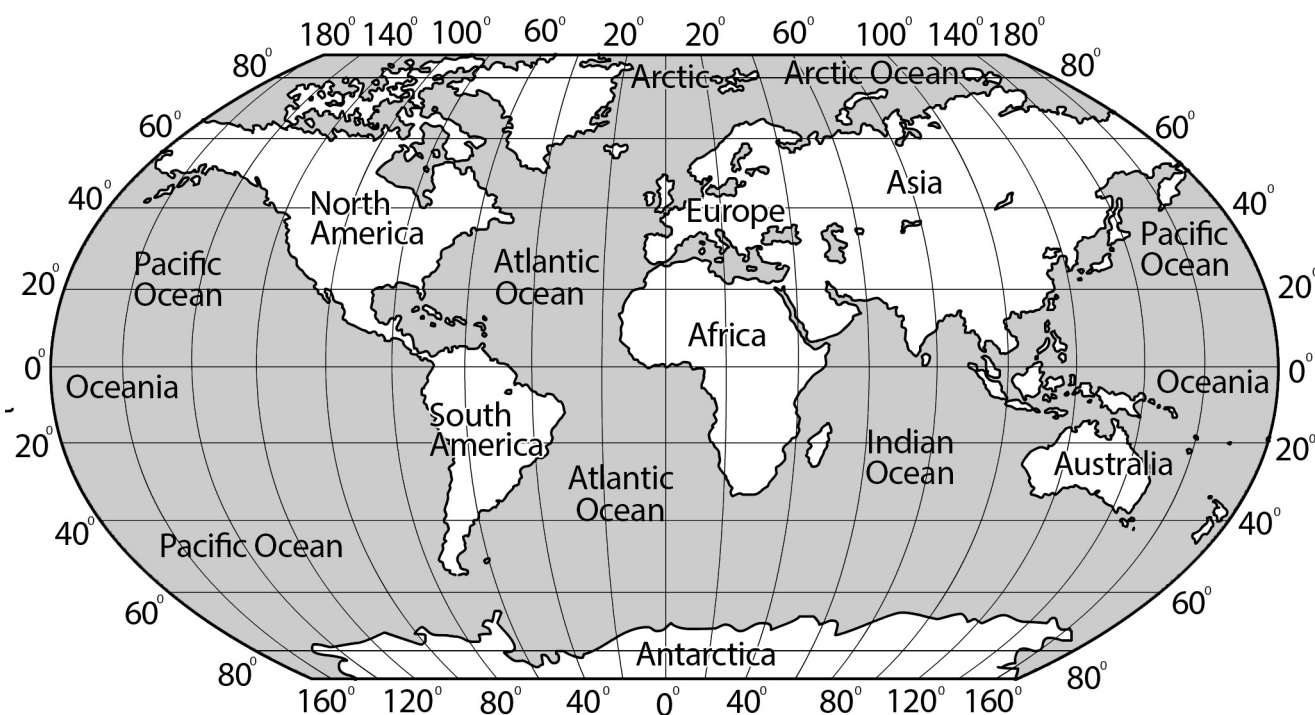
Activity 4 : Locating countries and cities on a map

Study the world map below and answer the questions which follow.

- Which country lies at 40° S and is very close to 180° E? _____
- Which country has 20° E and 20° S passing through it? _____
- Which continent has 40° N and 100° W passing through it?

- Which continent has 60° N and 80° E passing through it? _____

SOUTH AFRICA: LATITUDE AND LONGITUDE



Activity 5: Locating places (print/refer to map of South Africa)

- Which of the towns marked on the map lies at 34°S 18°E? _____
- Which large South African city lies almost on 30°S? _____
- State the latitude and longitude of East London. _____
- Which of these cities, Kimberley, Bloemfontein and Upington, lies closest to 29°S?
- Which of Nelspruit, Pretoria and Johannesburg lies closest to 26°S? _____

6. Which town is at 24°S, 29°E? _____

7. Which line of longitude forms part of a border with one of South Africa's neighbours? _____

SCALE

To make maps easy to access and use, they have to be reduced in size – it would be impractical to have a map of your classroom that is the same size as your classroom. For this reason, maps are drawn to scale, which means you can accurately measure the distance on a map and by applying the scale, you can find out what the real distance is.

Small scale maps

Maps that show large areas are called small scale maps. The map of Africa shown on the following page, is called a small scale map. The whole of Africa is shown on a map measuring a few centimetres across and down.

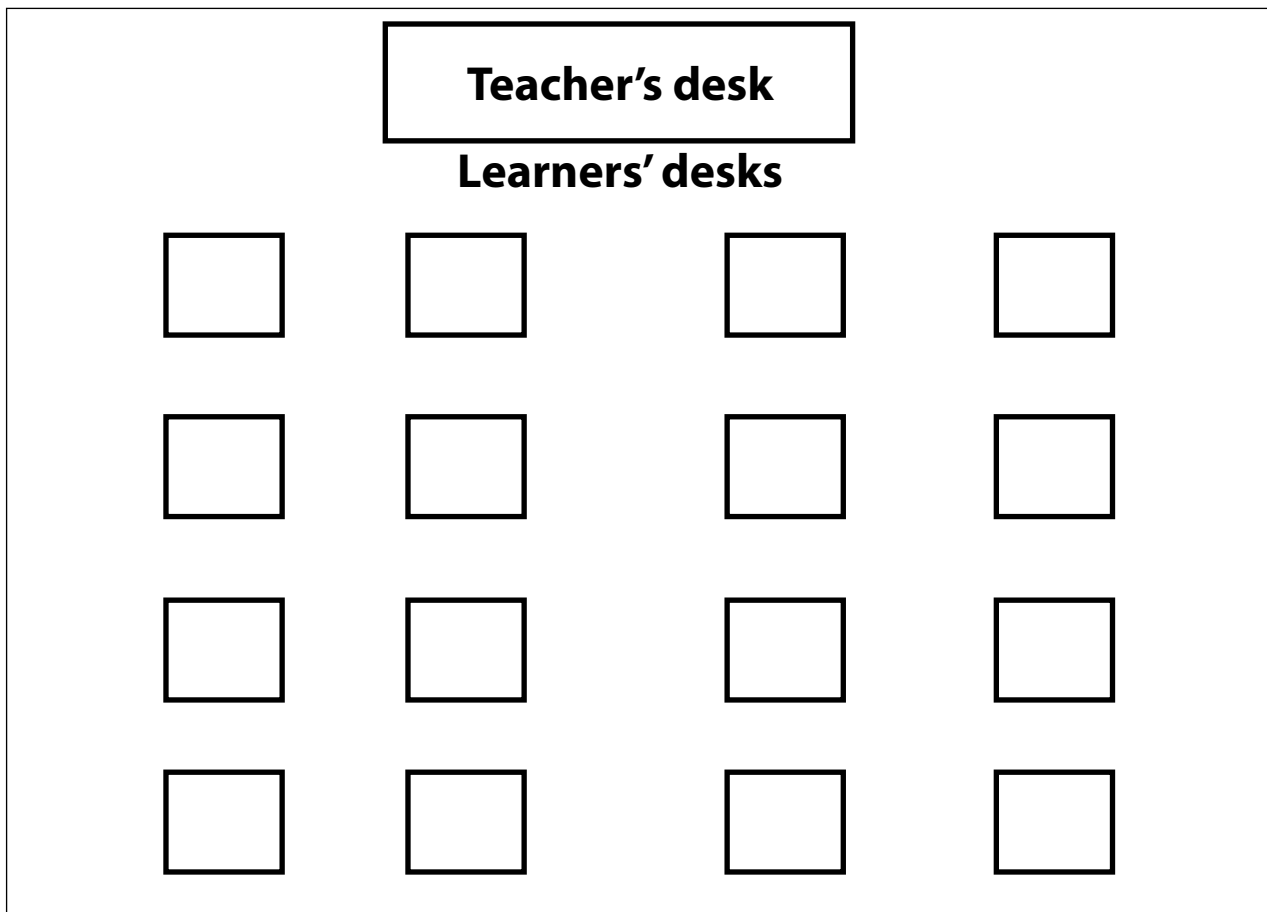


Figure 1: small scale map

Large scale maps

A map which shows a much smaller area is called a large scale map. This map, showing desks in a classroom, is a large scale map. A few cm on the map represents a few metres of the classroom.

Figure 2: large scale map



Word scales

Word scales are written, so 1cm represents 10km. This means that 1cm on the map is the same as 10km on the ground.

Activity 6: Using word scale

1. If the word scale on a map is: 1 cm represents 500m, what would be the distance between places that are:

4cm apart? _____ m

2cm apart? _____ km

7cm apart? _____ m

14cm apart? _____ km

2. If a word scale on a map is: 1 cm represents 150 km, what would be the distance between places that are

4cm apart? _____ km

2cm apart? _____ km

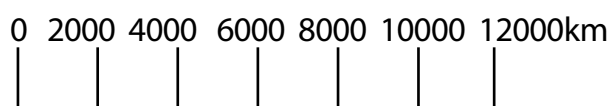
7cm apart? _____ km

14cm apart? _____ km

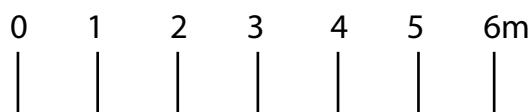
Line scales

The scale of a map can be shown as a line scale.

This line scale, showing 1cm=2000km could represent the small scale map of Africa shown before.



This could be the line scale for the large scale of the classroom shown before. 1 cm represents 1m.



Activity 7: Measuring distances using a line scale on the map of South Africa

Use the map of South Africa provided in the map section at the end of this document to measure the distance between Cape Town and:-

1. Beaufort West _____ km

2. East London _____ km

3. Johannesburg _____ km

Using the line scale measure the distance between Bloemfontein and:-

1. Upington _____ km

2. Polokwane _____ km
3. Durban _____ km
4. Do you think these distances are accurate distances between the towns?
Explain your answer: _____

Activity 8: Measuring distances using a line scale on a small scale map

On the map of Africa provided, measure the distance between Cape Town and:

1. Harare _____ km
2. Nairobi _____ km
3. Kinshasa _____ km
5. Abuja _____ km
6. Cairo _____ km
7. Find three different line scales in your atlas. Redraw them accurately starting with the one at the smallest scale and ending with the one at the largest scale.

Line scale 1

Line scale 2

Line scale 3

ATLASES, GLOBAL STATISTICS AND CURRENT EVENTS

The type of information provided in an atlas

An atlas is a book with many types of maps showing a great deal of information using photographs, graphs, charts, diagrams and text. The content in an atlas will include information on relief, climate, vegetation, population.

Activity 9: Working with the contents page of an atlas

Find the contents pages in your atlas. It should be at, or near, the beginning:

1. Atlases are divided into a number of different sections. All atlases are different. List the sections in your atlas.

2. Choose three sections that interest you and write a short description of each.

3. Find the page or pages in the atlas that show your province. What information is provided about your province?

4. See if you can find three of the following in your atlas:

(Not all atlases will carry all of the features listed, answer what you are able to.)

Longest rivers:

Highest mountains:

Biggest deserts:

Biggest forests:

Biggest oceans:

Largest cities (population):

Largest countries (area):

Activity 10: Marking and naming on a map

On the map of Australia, mark and name:

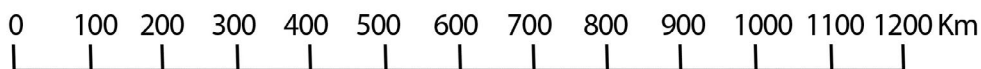
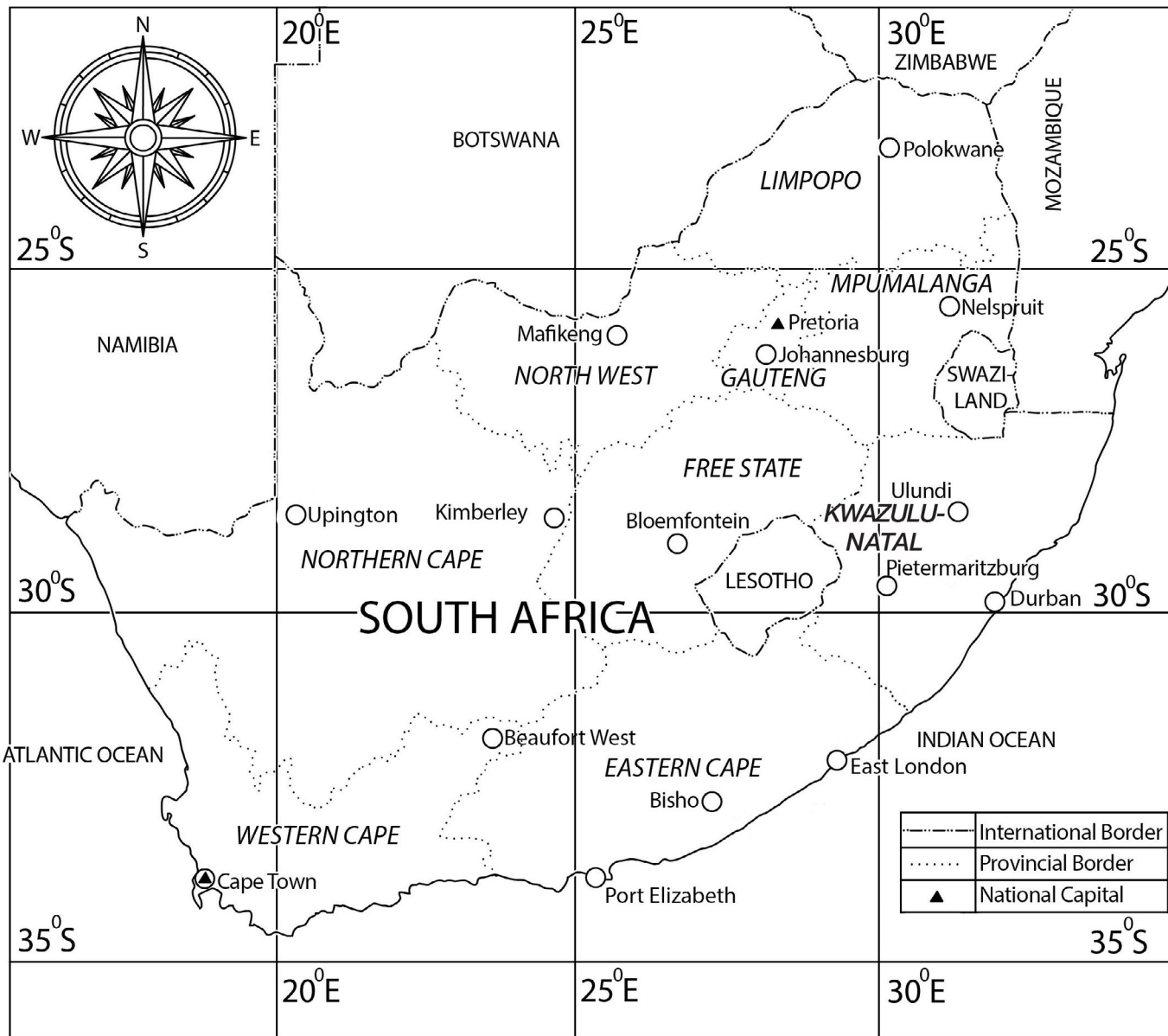
1. The states. Western Australia, South Australia, Northern Territory, Victoria, Tasmania, New South Wales, Queensland.
2. The cities. Perth, Adelaide, Darwin, Melbourne, Canberra, Sydney, Brisbane, Hobart.
3. The lines of latitude. 200° S, 300° S
4. The lines of longitude. 1200° E, 1500° E

Activity 11: Current events

1. Choose an event that is of international importance that interests you. Using the world map, mark the location of your chosen event and briefly explain what it is. Keep this map in a safe place and add other major events that take place throughout the year. Use your atlas to help you locate the places.
2. Do the same with map of South Africa, marking important events that take place in South Africa.

MAP OF SOUTH AFRICA

Note: To maintain scale accuracy, please ensure maps are printed on the 'Actual Size' setting of your PDF document and not 'Fit to Page'!



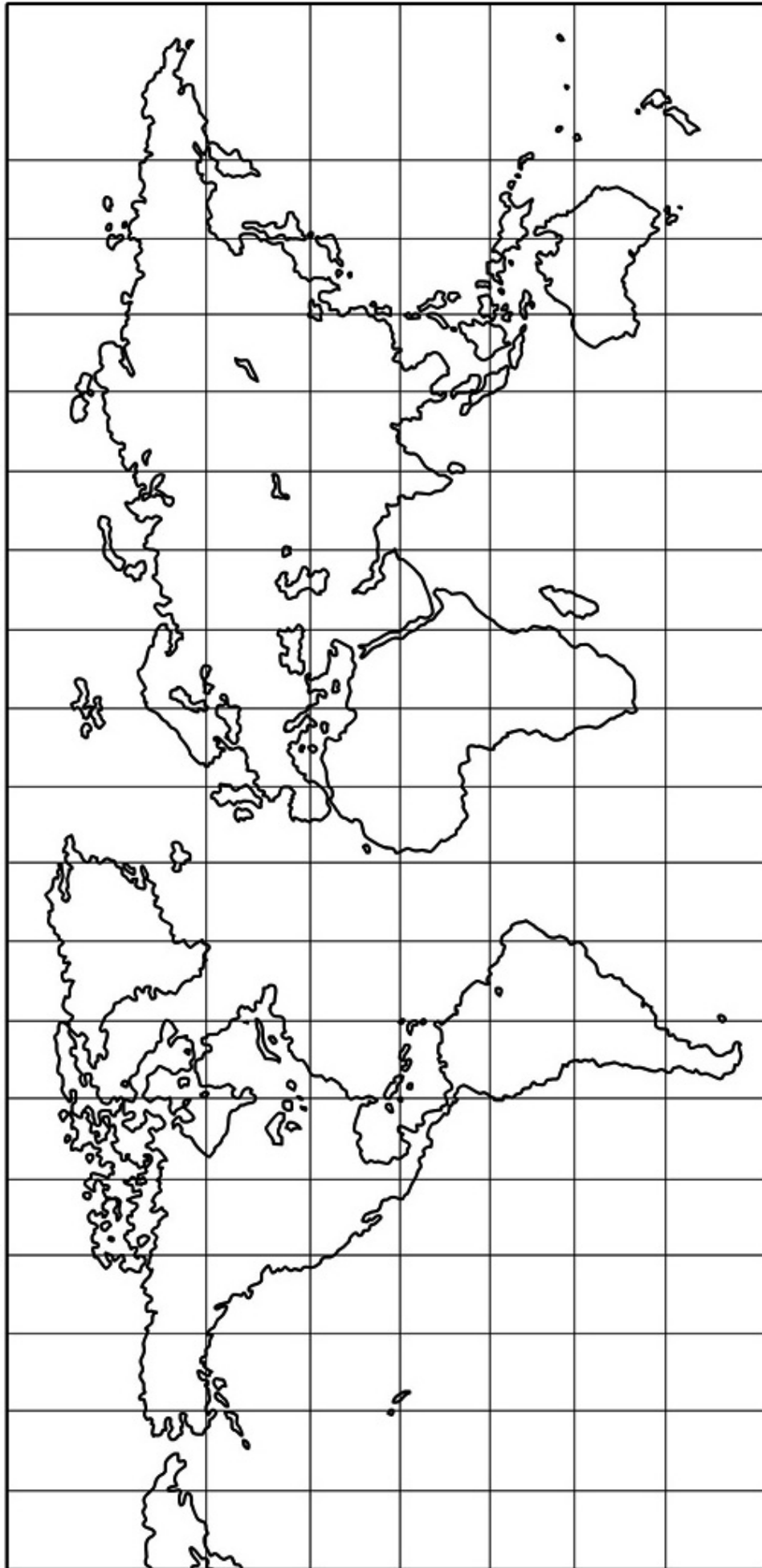
MAP OF AFRICA



MAP OF AUSTRALIA



WORLD MAP



MAP OF SOUTH AFRICA (FOR ACTIVITY 11)

