

Geography Grade 7

Term 1

Contents

SECTION A: MAP SKILLS	2
Local maps and street maps	2
Using an index to find places	2
Activity 1	2
Using a street map to find places and describe a route	4
Activity 2	4
Sketching maps and explaining routes	5
SECTION B: Map conventions	6
Activity 3	7
Activity 4	7
Activity 5	8
Determine and show compass directions on a local sketch map	8
How to find north in the southern hemisphere	9
Activity 6	10
Explaining a route verbally and estimate distances	10
Activity 7	10
Section C: FORMAL ASSESSMENT	11
Project: Draw a sketch map of your local area	11
Section D: Distance and scale	14
Map scales	14
Line scales and word scales	15
Activity 8	15
Word scales	16
Activity 9	16
Different scales for different maps	18
Large scale maps	18
Small scale maps	18
Activity 10 – comparing scales	19
How to measure indirect distances on a street map	20
Calculating distances on maps (direct and indirect routes)	20
Activity 11	21
Section E: Current events	21
Places in the news on a world map	21
Top Events in 2017	21
Latitude and longitude of places in the news	22
How to give a reference using latitude and longitude	23
Activity 12	23

SECTION A: MAP SKILLS

Local maps and street maps

Find home, school and places of interest on a map of the local area.

People use maps to find their way around and to find interesting places. Most cities in South Africa have street maps. These maps are usually prepared as a book because showing a city on one sheet of paper would be too big to use.

Using an index to find places

Vocabulary

***Index:** an alphabetical list of words, objects or places with page numbers, usually found at the back of a book, to help you find that item in a book.*

The index of street names below is from the Durban Street Guide.

The index shows the street name,

- the suburb where that street is,
- the page number where the street can be found and
- the grid reference, to help you find the street more easily.

Activity 1

Use the map index on page 3 to answer these questions.

1. On which page will you find Wipers Road?
2. On which page will you find William Nicol Street?
3. What is the grid reference for Wildebees Street?
4. In which suburb is Wiek Street?
5. In what suburb is Windsor Place?
6. You can see the name Wolfson Rd in the top right corner of the index.
Why is this name there?

Index to Street Names

Westway Rd

Wolfson Rd

STREET NAME	SUBURB NAME	PG	GRID	STREET NAME	SUBURB NAME	PG	GRID	STREET NAME	SUBURB NAME	PG	GRID	STREET NAME	SUBURB NAME	PG	GRID
Westway Rd	Douglasdale	14	DB 95	Wildebess Rd	Greenhills			Willow Cl	Bucleuch	18	DC 109	Winter St	Noordgesig	104	DZ 88
Westwood Way	Saxonwold	81	DQ 99	Wildebess Rd	(De Fontein)	71	DQ 59	Willow Cl	Kelland	53	DM 91	Winterberg	Bosmont	79	DU 91
Westwood Ave	Melrose Nth	56	DD 103	Wildebess St	Verwoerdpark	132	EE 112	Willow Cl	Kyalami Est	6	CV 106	Winterberg	Northcliff	79	DR 91
Wethered Rd	Greenside	81	DQ 97	Wildebess St	Rant-en-dal	26	DG 69	Willow Cr	Eldorado Pk	148	EJ 85	Winterberg Ave	Eastvale	93	DU 147
Weti St	Wattville	115	DZ 132	Wildebess Ave	Leondale	156	EJ 118	Willow Cr	Kagiso	74	DS 71	Winterberg Rd	Finsbury	96	DW 54
Wewer Cl	Crystal Pk	65	DM 140	Wildebraam St				Willow Cr	St Andrews	84	DQ 111	Winterberg St	Alrode Sth	188	EQ 109
Wewer Rd	Birch Acres	21	DE 121	Wildepruim St	Esther Pk	52	DM 88	Willow Pl	Hurlingham	33	DJ 99	Winterberg St	Leachville	138	EE 133
Wewer Rd	Randpark Rdg	30	DK 88	Wilderness	Maokong	10	CW 122	Willow Pl	Kelvin	35	DG 107	Winterhoek Ave	Oakdene	130	EE 101
Wewervoel Rd	Helikon Pk	71	DU 57	Wildesering Ave				Willow Rd	Benoni A.H.	42	DJ 136	Winterkoring Ave	Birch Acres	21	DE 121
Wexford	Broadacres A.H.	3	CV 95	Wildevoerd Pk				Willow Rd	Carlsvald	6	CV 107	Winze Dr	Fleurhof	104	DW 85
Wexford	Dainfern	3	CV 95	Wildesering St	Elsapark	135	EE 124	Willow Rd	Eastleigh	59	DO 115	Winze Dr	Stormill	104	DA 86
Wexford Ave	Parkview	81	DS 98	Wildesering St	Glen Marais	40	DF 126	Willow Rd	Everleigh	88	DU 126	Wipers Rd	Klippoortje A.H.	134	EA 118
Wexford Ave	Westcliff	81	DS 99	Wildesering St	Rodeokrans	50	DL 77	Willow Rd	Northcliff	53	DP 90	Wisani St	Mulbarton	146	EG 76
Weyers St	Alrode Sth	175	EP 110	Wildesering St	Van Dyk Pk	137	EC 31	Willow Rd	Primrose	85	DU 115	Wisbeck Rd	Chibwelo	152	EH 102
Whale Cl	Lawley	185	EU 73	Wildesering St	Brackendowns	174	EL 106	Willow Rd	Vaterval Est.	80	DQ 93	Wisconsin Ave	Eldorado Pk	147	EG 83
Whale Pl	Lawley	184	EU 72	Wildesering St	Dalpark	137	EC 136	Willow St	Dalpark	138	EC 136	Wishart St	Krugersdorp Nth	25	DJ 67
Wheatley St	Regents Pk	130	EA 104	Wildesering St	Woodmere	85	DT 118	Willow St	Kempton Pk	61	DL 124	Wistaria Rd	Primrose	111	DV 114
Wheaton Rd	Benoni	115	DW 130	Wildesering St	Willetta St	156	EK 118	Willow St	Lenasia	166	EL 76	Wistaria St	Esther Pk	38	DK 118
Wheel St	Selby	107	DQ 98	Wildesering St	Alan Manor	150	EF 116	Willow St	Plantation	114	DX 125	Wistaria St	Van Dyk Pk	137	ED 130
Wheeler Peak St	Lenasia Sth	200	EV 79	Wildesering St	Ohenimuni	203	EZ 89	Willow Ter	Westdene	115	DV 131	Wisteria St	Brackendowns	174	ED 106
Wheeler St	Oatlands	24	DJ 64	Wildesering St	Dal Fouché	240	ED 99	Willow Way	Northcliff	80	DQ 93	Wisteria St	Lenasia	167	EJ 77
Whelan Cl	Rivonia	34	DF 103	Wildesering St	Gallo Manor	105	DF 144	Willowbrook Pl	Sandown	34	DK 103	Wisteria St	Spoorhill	148	EL 88
Whirlwind St	Rhodesfield	61	DN 123	Wildesering St	Alsef A.H.	29	DG 94	Willowgrove Rd	Dainfern	3	CV 95	Wit	Witfontein	22	DE 128
Whisken Ave	Kyalami Est	6	CV 105	Wildesering St	Kleinfontein A.H.	89	DR 130	Willowgrove Rd	Eldorado Pk	148	EG 86	Wit Deep Rd	Boksburg	112	DZ 120
Whistlers Gate	Cedar Lakes	3	CY 94	Wildesering St	River Club	33	DF 100	Willowwood Cr	Juikskei Pk	14	DB 93	Wit Deep Rd	Delmore Pk	112	DJ 150
Whitaker St	Belgravia	109	DW 106	Wildesering St	Witfield	112	EL 106	Willows-Munro St	Morninghill	84	DS 110	Wit Rd	Selcourt	164	EX 119
Whitby Rd	Ferryvale	206	EY 154	Wildesering St	Woodmere	85	DT 118	Willowvale Cl	Paulshof	16	DB 103	Wit Rd	Springs	142	ED 150
White	Parkdene	114	DZ 126	Wildesering St	Wilgeboom Dr	35	DG 94	Willowvale Cl	Blairgowrie	54	DM 96	Wit Rd	Marlands	86	DU 119
White Ash St	Fourways Gdns	3	CX 96	Wildesering St	Wilgeboom Rd	39	DG 105	Willowvale Cl	Northcliff	53	DM 91	Witberg Pl	Claremont	79	DT 90
White Cr	Roshill	119	DZ 147	Wildesering St	Allen Grove	39	DG 105	Willowwood Cl	Bryanston	33	DG 99	Witbos St	Brackendowns	174	EM 106
White Rhino St	Mogantza	10	CY 124	Wildesering St	General Alberts Pk	154	EH 111	Willowwood Cl	Fairland	53	DM 90	Witcheed Ave	Rodeokrans	50	DL 77
White Rose St	Botonia	25	DK 85	Wildesering St	Pomona A.H.	40	DH 128	Willowwood Cl	Northcliff	53	DM 90	Witdoring	Palm Rdg	188	ET 112
White St	East Germiston	111	DJ 115	Wildesering St	Wilgenrivier Ave	138	EA 133	Willowwood Cl	Eden Pk	188	ES 111	Witdoring Ave	Wetveerd Pk	52	DL 88
White Stinkwood St				Wildesering St	Kloofdrain	50	DM 75	Willowwood Cl	Montclare	79	DT 90	Witdoring Rd	Sonnegans	31	DF 91
	Protea Glen	123	EE 73	Wildesering St	Kloofdrain	50	DM 75	Willowwood Cl	Hazeldene	133	EB 116	Witels Ave	Rand Leases	77	DU 83
White-eye Ave	Princes	50	DD 77	Wildesering St	Kloofdrain	50	DM 75	Willowwood Cl	Lyndhurst	57	DN 108	Witels Ave	Wetveerd Pk	52	DM 88
Whitehall St	Hurst Hill	80	DU 94	Wildesering St	Rodeokrans	48	DL 75	Willowwood Cl	Selcourt	164	EK 150	Wit-els Ave	Pomona A.H.	40	DH 127
Whitehaven Rd	Hazelde	133	EC 116	Wildesering St	Wilro Pk	50	DM 75	Willowwood Cl	Chislehurst	56	DM 102	Wit-els Ave	Randpark Rdg	31	DJ 91
Whitehead St	Witfield	87	DU 122	Wildesering St	Lindhaven	50	DM 75	Willowwood Cl	Finetown	200	EV 79	Wit-els Ave	Vlakfontein	42	DK 135
Whitehouse Ave	Farrermere	89	DT 132	Wildesering St	Witgespruit Cr	51	DN 83	Willowwood Cl	Hazeldene	133	EB 116	Wit-els St	Maokong	79	DU 90
Whitehouse Ave	Farrermere	89	DT 132	Wildesering St	Wilhelm St	76	DR 79	Willowwood Cl	Manuella	76	DQ 79	Witgatboom Ave	Glen Marais	40	DG 126
Whitehouse Ave	Farrermere	89	DT 132	Wildesering St	Wilhelmina Ave			Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Elsapark	135	EC 123
Whitford Rd	Klippoortje A.H.	133	EA 116	Wildesering St	Constantia Kloof	51	DO 84	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Palm Rdg	189	ET 114
Whitford Rd	Webber	133	EA 116	Wildesering St	Halfway Gdns	7	CV 110	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Rodeokrans	28	DK 77
Whitley Rd	Melrose Nth	56	DD 104	Wildesering St	Casseldale	142	ED 152	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Rodeokrans	28	DK 77
Whitley St	Airfield	90	DT 133	Wildesering St	Wilhelmina St	108	DV 103	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Leachville	138	EA 133
Whitman St	Farrermere	89	DR 131	Wildesering St	Wilhelmina St	108	DV 103	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Ennerdale	200	EX 79
Whitney Rd	Whitney Gdns	57	DM 108	Wildesering St	Meadowbrook	85	DR 115	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Whittaker Cl	Ennerdale	199	EW 75	Wildesering St	Sherwood Gdns	118	DY 141	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Whittaker's Way	Bedfordview	84	DU 110	Wildesering St	Wilkie St	52	DP 85	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Whittle Rd	Greenowide	157	EX 123	Wildesering St	Glenvista	152	EG 103	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Whitworth Rd	Heriotta	110	DX 109	Wildesering St	Will Scarlet Rd	54	DL 95	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Whizana St	Etwatwa	68	DN 150	Wildesering St	Birchleigh Nth	21	DB 123	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Whizana St	Etwatwa	68	DN 150	Wildesering St	Willar Dr	53	DM 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Whydah St	Crystal Pk	65	DM 140	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wicklow Ave	Kenmare	49	DL 74	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wicklow Rd	Kenmare	49	DL 74	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Widcombe Pl	Lone Hill	4	CZ 99	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Widgeon St	Florida Lake	77	DT 83	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Widgeon St	Lenasia	145	EK 75	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Widman St	Regents Pk	130	EA 104	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Widow St	Moteong	10	CY 121	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wiedeman St	Klippoortje A.L.	134	EB 119	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wielham Cr	Dayveton	66	DP 144	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wiek St	Bardene	88	DT 125	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wieke St	Sharonlea	13	DE 92	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wiellevale St	Atlasville	63	DP 129	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wierda Rd East	Sandown	34	DK 103	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wierda Rd East	Wierda Valley	56	DL 103	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wierda Rd West				Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wierda Rd West	Wierda Valley	56	DL 102	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wiese St	Rynsoord	117	DV 139	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wigan Ave	Crown Gdns	128	ED 96	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wight St	Rodeopoot	76	DR 79	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wilbers Rd	Estera	134	EC 119	Wildesering St	Willem de Klerk St	75	DR 75	Willowwood Cl	Witfield	86	DT 120	Witgaat Rd	Witthek Est	161	EJ 139
Wilcox St	Towery	130	EC 101	Wildesering St	Willem de Klerk St										

Using a street map to find places and describe a route

Street maps help you to find places and to describe the **route** from one place to another. Each street has a name to help you explain which route to take. The point where the streets cross each other is called an **intersection**.

A street map has two features to help you find things:

- ~ **grid lines** drawn on the maps to form **grid squares**
- ~ an **index** at the back.

Vocabulary

Grid lines: vertical and horizontal lines drawn on a map in a grid shape.

Grid squares: the squares (sometimes rectangles) on a map formed by grid lines

Grid reference: using numbers and letters on the grid lines to refer to a specific place on a map.

Activity 2

Study the street map of Germiston on page 5 and answer the following questions:

1. Give the grid squares for:
 - a. Lambton Mall
 - b. Colin Mann School
 - c. Germiston Medicross Centre
2. Name the main road in grid square EB 117.
3. Name the suburb in grid square EA 118.
4. Name the grid square where there is a convent.
5. Draw the symbol for:
 - a. Police station
 - b. Place of Interest
 - c. Hotel

Remember to use the correct colours.



Street map of Germiston-Map Studio Street Guide Gauteng page 266

Sketching maps and explaining routes

Vocabulary

Sketch map: rough drawing that looks like a map.

A sketch map is not as detailed as a proper map. It is a rough drawing that shows only important details that will help a person find the way.



SECTION B: Map conventions

Most maps contain four conventions to make them easier to use. The conventions are:

1. A title

The title tells you the name of the place or the most important place on the map

2. A map key (or legend) and symbols



A map key explains the symbols used on the map. The key above shows a simple map key. Look for other map keys in your atlas.

3. A scale

Vocabulary

Line scale: a line that looks a bit like a ruler, which is drawn on a map to show how much smaller the map is than the real distance on the ground.



4. A north direction arrow and the four cardinal points

A north direction arrow on a map tells you which way to hold your map. You must be able to point your map correctly towards north. The four **cardinal points** are the four main points on a compass: north, south, east and west.

Activity 3

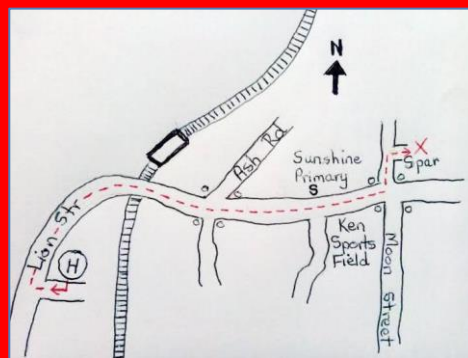
Complete the following 8 point compass rose in your workbook.



Activity 4

Sketch maps to show the route from one place to another.

Study the sketch map below and answer the questions.



- Using the 8 compass points, give the direction from the Ken Sports Field to:
 - Sunshine Primary
 - The railway station
 - Spar
- Why are only some street names on the sketch map?
- List 2 differences between the sketch map above and the street map of Germiston on page 5.
- Draw the symbols used to show:
 - traffic lights
 - the railway
 - the hospital
- Give accurate and precise directions from the hospital to the Spar.
Begin as follows: Turn right out of the hospital.

Activity 5

Draw a sketch map of a route.

Draw a sketch map of a route from your classroom to the tuck shop. Follow the steps below.

1. Walk the route and make notes and rough sketch of what you see. Include:
 - the main places where they need to turn and the direction
 - some obvious features that will help them recognise where they are
 - any grassy areas, tarred areas or steps
 - anything else that will help them find their way.
2. Work out the approximate distance of one part of the route. You can estimate distances between places in metres. A long pace is about one metre. A netball court is 30 metres long, whereas a soccer field is 100 metres long. When you draw your sketch map, show the length in metres. (Round off the distance if necessary.)
3. Now draw your sketch map. Include all the information you recorded. Also add a title, a key and your measured distance (a scale).
4. Exchange route maps with another group. Pretend that you are completely new in the school and see if you can follow the route.

Determine and show compass directions on a local sketch map

Vocabulary

Analogue Watch: a watch that tells the time with hands

Bisecting : Dividing an angle in two equal parts

A map is usually drawn with north pointing to the top of the page and the north-south line parallel to the side of the page. If this is not the case, a north-pointing arrow will be shown on the map.



How to find north in the southern hemisphere

Method 1

1. Go outside your classroom to an open space.
2. Decide where the sun rises and where the sun sets.
3. Now point to the east (sunrise) with your right arm and to the west (sunset) with your left arm. North is directly in front of you.



Method 2

You could also use an **Analogue Watch** and a thin stick like a toothpick or match to find "True North".

1. Go outside your classroom to an open space.
2. Hold your watch steady or place it on a level piece of ground.
3. Hold the toothpick or match vertically over the number 12 on the watch. It will cast a straight line shadow.
4. Turn the watch until the shadow falls across the number 6, crossing over the centre of the watch.
5. The north-south line is the line **bisecting** the angle between the hour hand and the shadow line.



Activity 6

1. Go back to your classroom. Draw a simple sketch plan of your classroom. Show the door, windows, any cupboards, your teacher's desk and mark the position of the rows of desks.
2. Now add in the four map conventions – a title, scale, key and north direction arrow.

Explaining a route verbally and estimate distances

Giving clear and simple directions is an important skill that you need to develop. You could use phrases like:

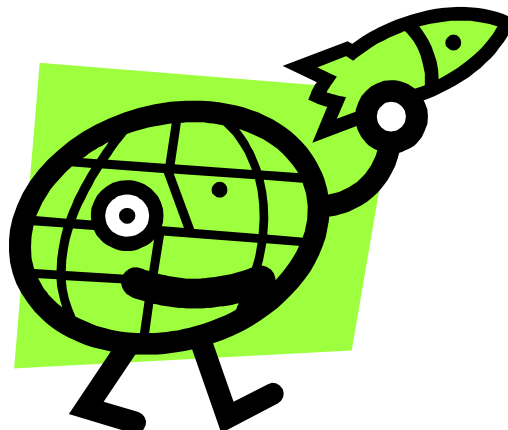
- ✧turn left or turn right
- ✧go straight for 10 metres or 3 street blocks

When you explain a route, you need to give the person an indication of roughly how far it is.

Activity 7

Explain the route verbally

1. Work in pairs. Your teacher will give you a route to explain verbally. You will have 5 minutes to prepare, before explaining the route to another group. Remember to give them an estimate of the distance they will need to walk.
2. Discuss whether the directions given were clear enough. Did the group understand where to go? How could the learners improve their verbal directions? Did they give a good estimate of distance?



Section C: FORMAL ASSESSMENT

Project: Draw a sketch map of your local area

Vocabulary

Land use - how people use the land, e.g. for farms, houses, factories.

Instructions

In this project, you will draw a sketch map of the area around your home or school. If you live in an urban area, your map should cover at least two streets in all directions from your home. If your area is not very complicated, include more. Try to include all the types of places found in your area, for example: roads, open green spaces, small shopping areas, a post office, a police station, and so on. If you live in a rural area then you should include a larger area.

You will need at least two weeks to complete this project. You will learn more mapping skills during that time and you can use these new skills to help you.

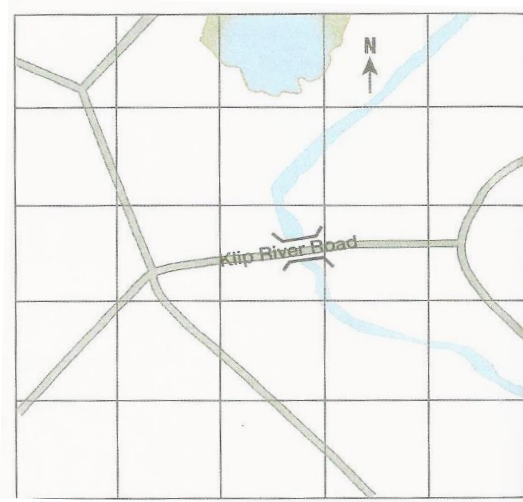
Remember to:

- work **very accurately**
- include plenty of detail
- use all four map conventions
- make sure that your map is **drawn to scale**
- draw places **accurately** and in the **correct position**
- use colour, especially for the key.

Guidelines to follow when drawing your sketch map

1. Walk around your sketch map area. Make notes about the elements such as:
 - different land uses, for example: parks, factories, shops, sports facilities, grazing area, rivers and hills
 - different kinds of vegetation
 - buildings and other interesting structures

- emergency services if there are any in your area
 - public facilities like swimming pools and libraries
 - the names of roads, places and shops.
2. While you walk around your area, start sketching the whole area so you can see how it all fits together. You can always go back and check things later.
 3. Also, while you are walking around, the first time or later, measure 100 metres between two points that you know, so you can create a line scale later (maybe 1cm will represent 50m or 100m).
 4. Now go home and start drawing your sketch map. Draw a frame on a piece of paper. Use a pencil and ruler to draw a grid inside the frame (draw the lines lightly). The grid will help you to draw places in the correct place on your sketch map.



RANBY, P Social Sciences Grade 7 page 8

5. First, try to get the shape right, so that some streets are not too long and others too short – keep everything to the same scale. Also, try to get the size right. Work out what scale you will use and make sure your map fits on your piece of paper, and is not cramped up in the middle.

Include symbols, key and scale on your sketch map

Important elements to include on your sketch map are a map key with symbols and a scale. Create symbols for the main elements on your map and show them in the key with the correct label.

Record your observations of land use and different kinds of vegetation

Show different ways the land is used on your sketch map, e.g. buildings, farms, industry, open space, parks and kinds of vegetation.

Here are some photos of land uses. Use these ideas to help you identify and include different land uses in your sketch map.



The central area of a town has shops and a bank/post office/hotel.



There is more space for agricultural land use outside a town



Residential land use is usually located around the town centre.



Manufacturing takes place in another part of town away from where people live.

Show the four cardinal compass directions on your sketch map

Use the information you learnt about how to show compass directions and the four cardinal points, and include the cardinal compass directions on your sketch map.

Project rubric

Criteria	Mark Allocation	My mark
The local area is named. (suburb) The frame has been drawn. The grid squares have been drawn inside the frame. (lightly)	3	
Main roads or paths have been marked.	3	
Symbols have been drawn on the map to represent landmarks and places of interest.	4	
The symbols have been explained in a key on the map.	4	
The sketch map has symbols to show land use. These are shown on the key.	3	
The four compass points are shown.	2	
The line scale has been calculated accurately and drawn on the sketch map.	5	
The sketch map has a clear and accurate title.	1	
General appearance and neatness	5	
TOTAL	30	

Section D: Distance and scale

Map scales

On most street maps, a distance of 1cm on the map is about 400 metres on the ground. But, on smaller scale maps that show a whole city on one sheet, 1cm on the map might represent about 4km on the ground. Therefore, the scale on the map of the whole city is 10 times smaller than the scale on a street map.

When you draw maps of places, you need to show things smaller than they are. However, you need to be able to see on the map how far distances really are. Imagine packing lunch in the car and getting ready for a long journey, and arriving in 10 minutes, or going to a friend's house for tea and walking all day to get there.

These are some of the reasons why you need to be able to calculate distances from maps.

Line scales and word scales

0 10 20 30 40 50km

Line scale:



Word scale:

1 cm on the map represents 10 km on the ground.

0 200 400 600 800 1000m

Line scale:



Word scale:

1 cm on the map represents 200 m on the ground.

Activity 8

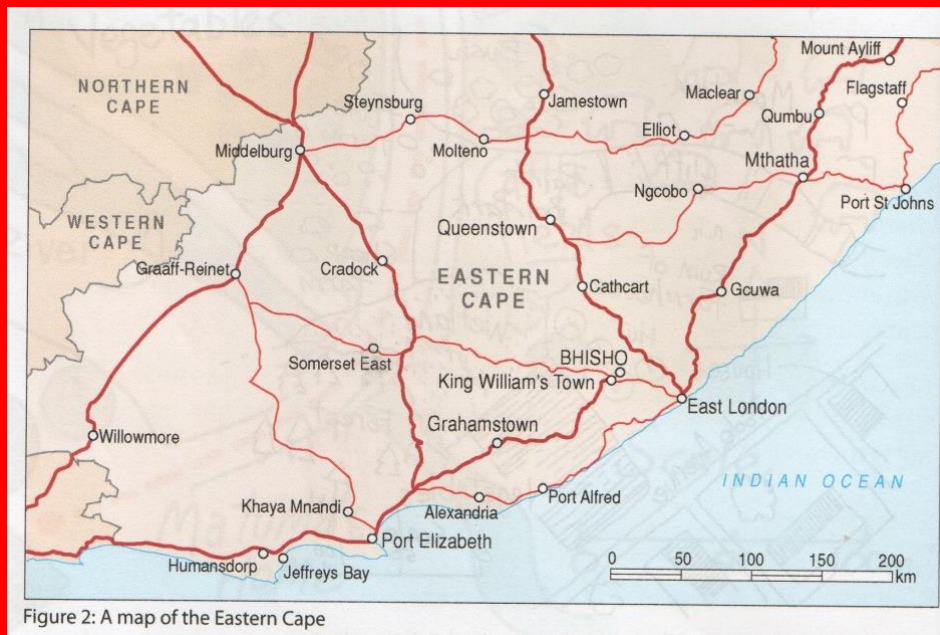


Figure 2: A map of the Eastern Cape

1. Where is the scale on this map?
2. What type of scale is represented on the map?
3. Write out the scale in words.
4. Measure the shortest distance between Rustenburg and Potchefstroom.
5. How many centimetres is this on the map?
6. What is the distance on the ground?
7. Draw the scale exactly the same size as it is on the map.

Word scales

A word scale explains in words what the scale is. It is a simple statement, e.g. 1 cm represents 100 km. This means that 1 cm on the map represents 100 km on the ground.

Vocabulary

Direct : going straight from one place to another along the shortest route.
A direct line between two places is a straight line.

Activity 9

A. Refer to the map of the Northern Cape.

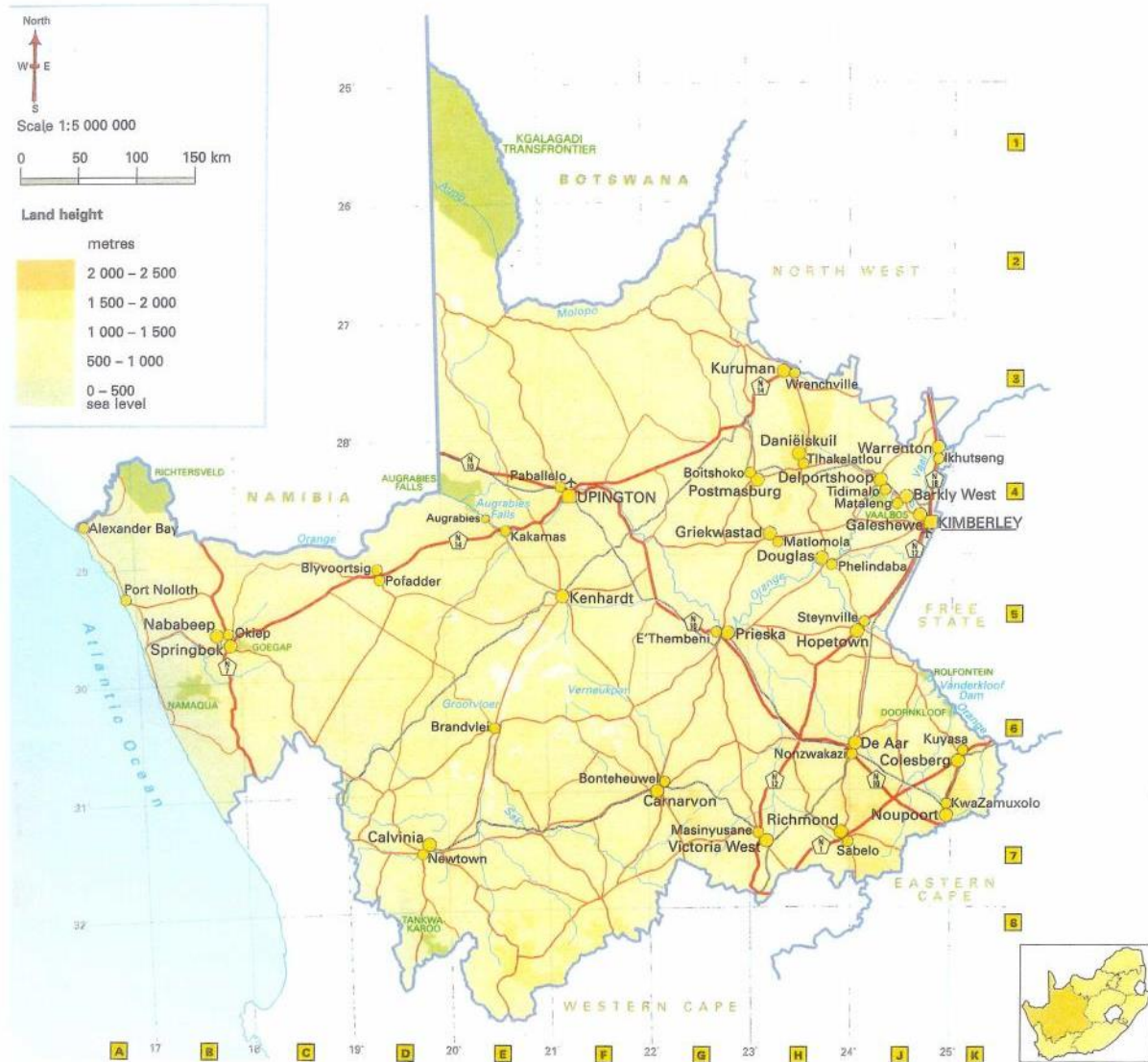
1. Explain the scale on the map in words. (1)
2. Draw a line scale exactly the same size as it is on the map. (1)
3. Use a ruler to measure the direct distance between:
 - a. Calvinia to Carnarvon
 - b. Upington to Kenhardt
 - c. Prieska to Hopetown
 - d. Carnarvon to Victoria West
 - e. Hopetown to Kimberley (5)
4. Hint: calculate as follows: _____ cm X _____ km = _____ km
Calculate the straight line distances between:
 - a. De Aar to Hopetown
 - b. Upington to Kuruman
 - c. Springbok to Pofadder
 - d. Victoria West to Noupoort
 - e. Kimberley to Upington (10)

B. Draw a line scale to show a scale of 1 cm represents 75 km. The line scale should cover a distance of 600 km.

(3)

TOTAL: 15

28 South Africa's provinces Northern Cape



	national route	NAMIBIA	neighbouring country
	arterial/main road	FREE STATE	neighbouring province
	secondary road	KIMBERLEY	provincial capital
	railway	Orange	dam/river
	international boundary	Vaalbos	nature reserve
	provincial boundary		
	built-up area		
	river		
	perennial pan		
	dry pan		
	protected area		
	airport		

Facts about Northern Cape	Northern Cape	South Africa
Population 1996	840 321	40,7 million
Share of national population %	2	100
Area in km ²	361 830	1 219 090
Level of urbanization %	77,1	53,5
Children under 15 years old %	33	34,2
Matric pass rate %	64,3	48,9
Illiteracy: adults over the age of 20 years %	43	38
Earning less than R500 per month %	42	26
Living in informal dwellings %	14	11,2
Without electricity %	21,5	37
Tap in dwelling %	49,7	41,8
Phone / cell in dwelling %	30,8	38,2
Number of doctors per 10 000 population	2	2,9
Motor vehicle theft rate per 100 000 population	47,1	201,6

© South African Institute of Race Relations

Different scales for different maps

Large scale maps

Local street maps are examples of large scale maps. The area being represented by the map has been scaled down less. The scale on a street guide could be: 1 cm on the map represents 100 m on the ground.



A street map is an example of a large scale map.

Small scale maps

A map showing a large area is an example of a small scale map. A small scale map shows **more** of the area but in **less** detail. There is not enough space to include all the towns and streets. The scale on a map of South Africa could be: 1 cm on the map represents 250 km on the ground.



The world map is an example of a small scale map

Activity 10 – comparing scales

Map of
South Africa



Map of
the World



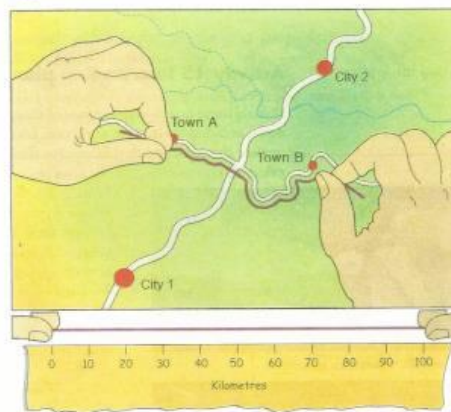
1. Which map has the largest scale of the two?
2. Explain your answer for number 1.
3. Name two things that appear on both maps.
4. Which map shows more details of South Africa? Give two examples to justify your answer.

How to measure indirect distances on a street map

Most routes between places are not straight lines. Most roads are curved, with lots of twists and turns. To measure these indirect routes we use a piece of string or thread.

Mark the string at point A, work your way along the string from point A to point B, and make another mark on the string at point B. Now lay out the string straight along the line scale OR measure the distance on your ruler and work out the distance using the scale.

Why is it not a good idea to use wool to measure a curved distance?



CLACHERTY, A Social Sciences Today Grade 7 page 17

Vocabulary

Estimate: a rough calculation or a good guess of the **amount** or value of something.

Calculating distances on maps (direct and indirect routes)

Use the scale to estimate distances on a map

Check estimates with accurate measurement

When you use a map, you don't always need to measure the distance exactly. Often, you only need an **estimate**, rather than an exact measurement. Estimating a distance on a map is a skill that you can learn. The more you practise estimating, the more accurate your measurements will become.

Activity 11

Refer to the map of the Northern Cape on page 17

1. Estimate the distances between the places on the map in kilometres and write it in the 2nd column.
2. Only once you have estimated all the distances, do you check your estimates with accurate measurements (column 3).

Places	Estimates	Actual measurement
Kenhardt to Pofadder	_____ km	_____ km
Uppington to Prieska	_____ km	_____ km
Pofadder to Calvinia	_____ km	_____ km
Kimberley to Kuruman	_____ km	_____ km
Richmond to Carnarvon	_____ km	_____ km

Section E: Current events

Places in the news on a world map

Every day there are reports and stories in the news to do with geography: disasters, world sport tours, weather, farming, wars and politics. When important events happen somewhere in the world, do you know where those places are? The pictures below show some important events that took place in 2017.

Top Events in 2017





1. Throughout this year, learners will take turns to bring news stories from papers, magazines and the Internet for the current events map in the classroom.
2. Mark on a label the grid reference of the place you are talking about.

Latitude and longitude of places in the news

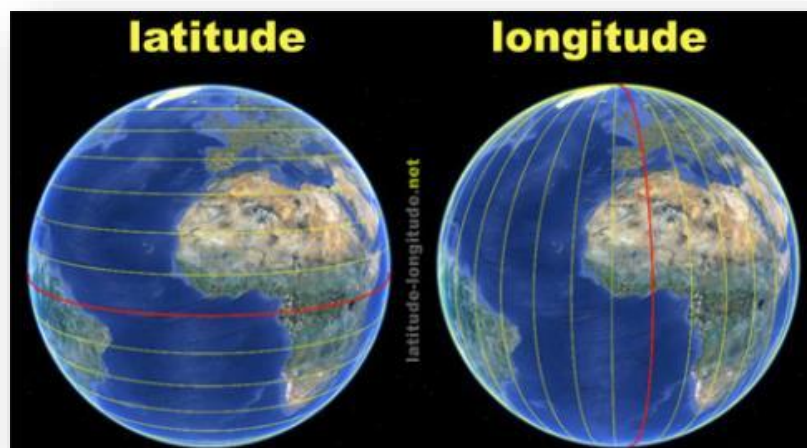
In the same way that you used a grid reference to find places on a street map, you can use **latitude** and **longitude** to find places on a world map.

Vocabulary

Latitude lines drawn on a map that show degrees north or south of the Equator.

Longitude lines drawn on a map that show degrees east or west of the Prime meridian, which is the zero degree line

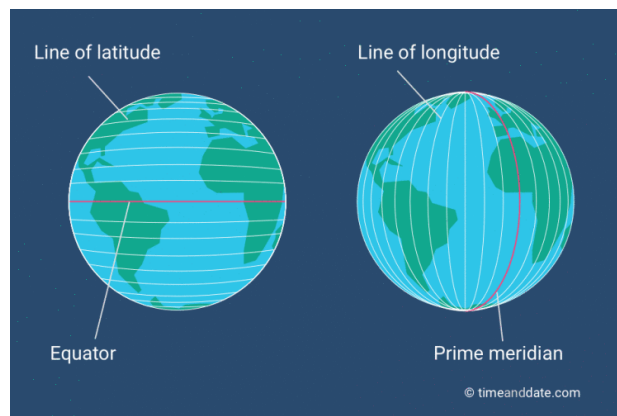
The lines on this globe are lines of latitude and longitude. The lines from the North Pole to the South Pole are lines of longitude. Lines of longitude meet each other at the poles. The other lines, which run horizontally around the globe (for example, the Equator), are lines of latitude. Lines of latitude do not meet each other – they stay the same distance apart all the way around the globe.



How to give a reference using latitude and longitude

When you give a reference for a place, you always start with the number of degrees north or south, then the number of degrees west or east.

Activity 12



Fill in the missing words in the spaces provided.

North or South, degrees, Equator, North Pole, horizontally, vertically, Meridians, Greenwich England, Longitude, East or West, east longitude, Universal Time, International Dateline, Greenwich Mean Time, water.

1. Lines of latitude run _____
2. Latitude is measured in _____
3. The _____ is 0 degrees latitude.
4. Lines of latitude locate places _____ of the Equator.
5. The _____ is 90 degrees N latitude and the South Pole is 90 degrees S latitude.
6. Lines of longitude run _____
7. Lines of latitude are called _____
8. The Prime Meridian is found in _____
9. The Prime Meridian is 0 degrees _____
10. The blue colour in the diagrams represent _____
11. Lines of longitude locate places _____ of the Prime Meridian.

12. There are 180 degrees of _____ and 180 degrees of west longitude.

13. _____ - the time that is registered at Greenwich, London.

14. Greenwich Mean Time is another name for _____ -

15. Use an atlas to answer the following.

Which South African cities are at or near these grid references?

a. 33°S , 28°E _____

b. 26°S , 28°E _____

c. 34°S , 18°E _____