



TYPE OF TASK: MINI RESEARCH TASK - WATER MANAGEMENT IN SOUTH AFRICA

SUBJECT	:	GEOGRAPHY
CODE	:	GEOG
GRADE	:	10
TERM	:	TWO
EXAMINER	:	SEDIBENG EAST
MODERATOR	:	
DATE OF IMPLEMENTATION	:	13 APRIL 2026
TOTAL	:	100
TERM WEIGHTING	:	40%
SBA WEIGHTING	:	20

TEACHERS GUIDE

This task must be printed for learners, and learners must do the complete task on this template.

SUMMARY OF MARK ALLOCATION:

ACTIVITY	TOTAL	MARK LEARNER OBTAINED
PART 1		
ACTIVITY 1	4	
ACTIVITY 2	6	
ACTIVITY 3	5	
ACTIVITY 4	15	
PART 2		
ACTIVITY 5	50	
PART 3		
ACTIVITY 6	10	
ACTIVITY 7	10	
TOTAL	100	

INFORMATION:

1. This Assessment Task is set according to guidelines and assessment options as presented in the FET Geography CAPS guideline.
2. This task must be completed in class under **FORMAL ASSESSMENT CONDITIONS** during the week of
3. You are allowed to bring your own coloring pencils to class.
4. Use the rubric to guide you when completing this Assignment.
5. Work strictly according to the steps in the task.
6. The assignment must be handwritten, and everything must be completed in this booklet in the spaces allocated at each step.
7. The theme of the task is: Water Management in Gauteng
8. Hypothesis below are given as guidelines. Learners are welcome to create their own hypothesis. Teachers must please give guidance to learners creating their own hypothesis

PART 1

STEP 1: HYPOTHESIS

South Africa's water crisis results from the effects of physical factors like drought, climate change and being in a lower rainfall region. The problem of water availability is factors such as:

- inadequate maintenance of our aging water infrastructure,
 - poor management of our water resources and water facilities
 - reckless use of water by communities
- (each factor can be seen as a separate hypothesis)

Inconsistent rainfall in Gauteng can lead to droughts or flooding which will have a negative effect on the agricultural/mining/industrial sector

The increase in population in Gauteng will cause water shortage in this province in the next 10 - 15 years.

STEP 2: BACKGROUND INFORMATION

South Africa is a water-scarce country with significantly lower rainfall than the global average, facing challenges from climate change, aging infrastructure, and high demand, leading to unreliable supply in many areas. While progress has been made in expanding access to piped water, the reliability of municipal supply has declined, and 98% of the country's available water resources are already allocated. Key challenges include the aging infrastructure, lack of maintenance, and poor integration of housing with infrastructure, while potential solutions involve improved management of water resources, exploring alternatives like desalination, and implementing water-saving practices.

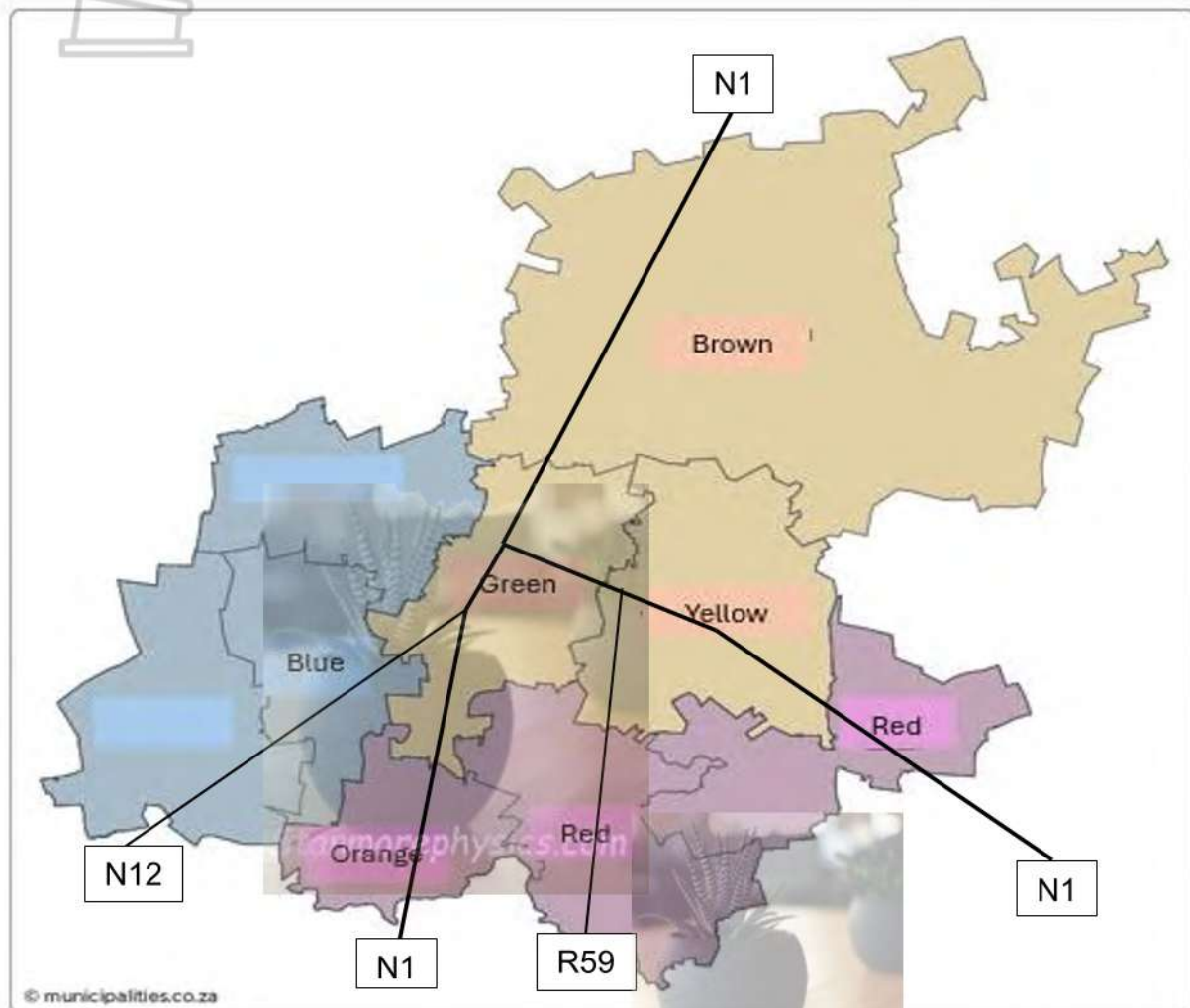
Gauteng is facing a water crisis driven primarily by aging, leaking infrastructure, illegal water connections, and theft, leading to significant non-revenue water losses. High per capita water consumption is exacerbating the problem, stressing reservoir levels despite a lack of drought. While some officials deny a water crisis, emphasizing infrastructure issues over supply shortages, solutions require improved infrastructure maintenance, stricter

ACTIVITY ONE: [4 Marks]

Identify the area where your school is located and complete the table:

HEADING: _____

1A



1B

Each district must add their own municipal map here



MARK ALLOCATION:

Colors are given to the municipal area. Color the key/block with your schools district color given on the map. Write the districts name next to key/block	 District name: _____ _____(1)
Give the name of the road/freeway that passes through the municipal area where your school is located.	 _____(1)
Indicate on the map (1B) above the location of your school in your municipal area with a black dot and write your schools name. Buffer your district with the color given to your district. (color pencil)	_____(1)
Name of the municipal area	_____(1)
TOTAL	/4

Educator, to use this mark allocation table to mark this activity. 1 mark each per requirement

Assist learners where needed to identify their areas. Provide learners with colouring pencils/highlighters if they don't have.

STEP 4 DATA COLLECTION, DATA REPRESENTATION AND DATA ANALYSIS

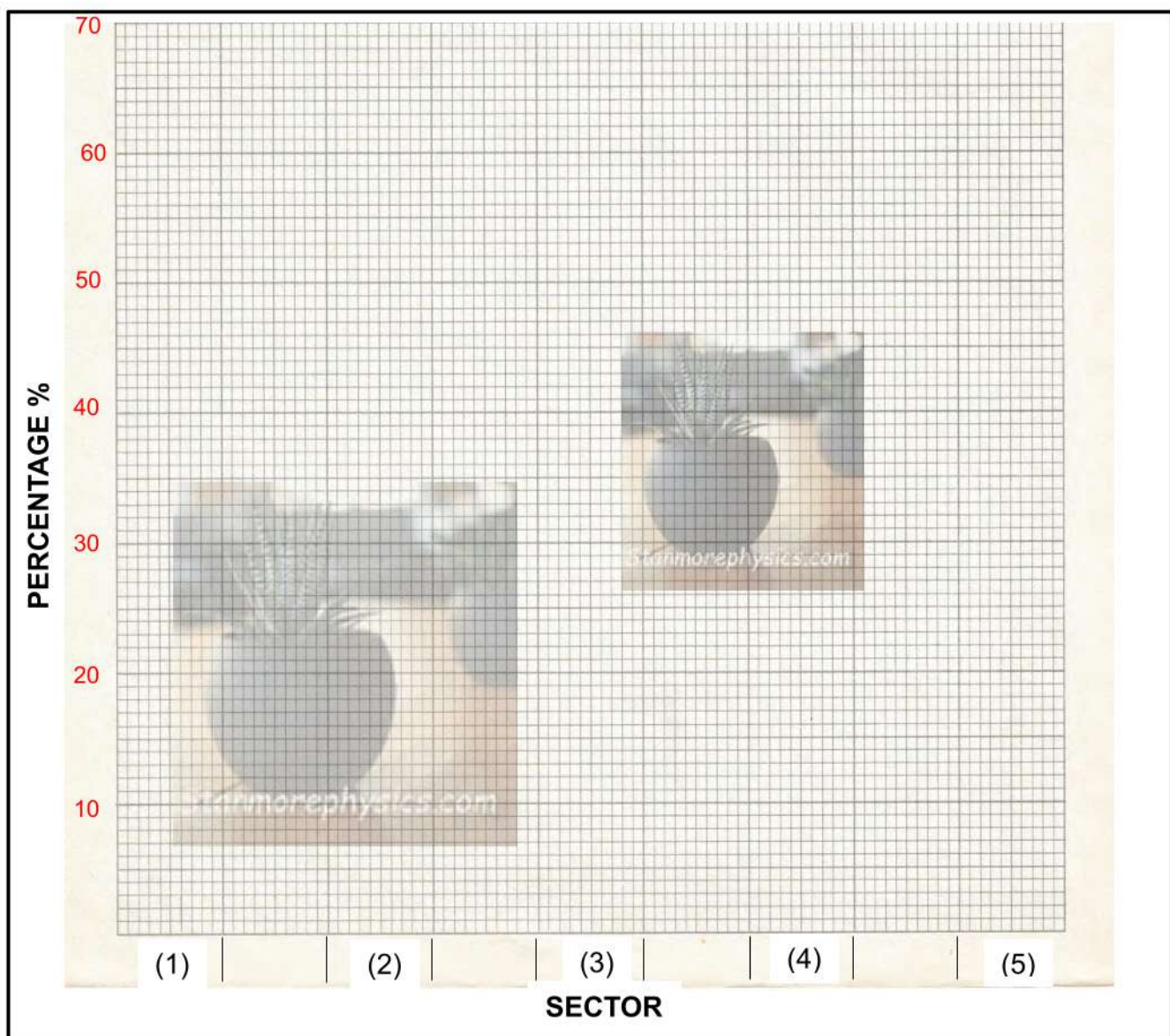
Percentage water used per sector in South Africa (Gauteng) for 2024

ACTIVITY/SECTOR	PERCENTAGE WATER USED
(1) Mining	5%
(2) Forestry	5%
(3) Municipal service usage	17%
(4) Industries	18%
(5) Agriculture	55%

ACTIVITY TWO: [6 Marks]

Use the information in the table above, and draw a bar graph on the graph paper below

TITLE: _____



ACTIVITY THREE: [5 Marks]

Analise the information represented on the graph and write a short paragraph on your analysis of water usage for each sector

MARKING GUIDELINE:

(Learners must refer to each sector in the paragraph)

- Mining (1) and forestry (1) contribute the least to water usage in S.A with 5%
- Municipal services (1) contribute 17% to water usage in S.A
- Industries (1) are the second highest contributors to water usage in S.A with 18%
- Agriculture (1) is the highest contributor of water usage in S.A with 55%

ACTIVITY FOUR: [15 Marks]

READ THE ARTICLE BELOW AND ANSWER THE QUESTIONS THAT FOLLOW

South Africa is one of the 30 most water-scarce countries in the world, and the demand for water in the country is increasing as a result of economic and population growth. Yet, the average consumption of water is 218 litres per capita per day, compared to the international average of 173 litres per capita per day. Already, 75% of the available surface water has been captured in dams, and the remaining opportunities for capturing surface water are very expensive. At the same time, the increasing impact of climate change could also result in more severe droughts in future, as well as more frequent floods which caused major damage to water and sanitation infrastructure.

The mandate of the Department of Water and Sanitation (DWS) is set out in the National Water Act of 1998 and the Water Services Act of 1997. The department's legislative mandate is to ensure that the country's water resources are protected, managed, used, developed, conserved and controlled by regulating and supporting the delivery of effective water supply and sanitation. This is done in accordance with the requirements of water-related legislation and policies that are critical in honouring people's rights to have enough food and water, growing the economy and eradicating poverty.

Over the medium term, the department aimed to focus on providing reliable water and sanitation services; improving the regulation of water quality through the application of blue drop, green drop and no drop incentive schemes; and prioritising the integration of water resource planning and development. The DWS planned to establish the National Water Resource Infrastructure Agency by May 2025, which will own all the national water resource infrastructure assets and obtain the revenue streams associated with those assets. The department is a custodian of existing 323 large dams and related infrastructure across the country.

1. According to the article, what is the average consumption of water in South Africa, per day (1 x 2) (2)
218 litres per capita
2. List TWO reasons, according to the article, why there is an increasing demand for water in South Africa (2 x 1) (2)

Economic and Population growth

3. Quote evidence from the article that climatic factors also impact on water availability in South Africa (1 x 2) (2)

“the increasing impact of climate change could also result in more severe droughts in future, as well as more frequent floods which caused major damage to water and sanitation infrastructure”.

4. Refer to the article and identify THREE roles of the Department of Water and Sanitation (1 x 3) (3)

is to ensure that the country's water resources are:

- ***protected,***
- ***managed,***
- ***used,***
- ***developed,***
- ***conserved***
- ***controlled***

5. Discuss THREE ways in which the Department of Water and Sanitation can ensure that people have access to enough water (3 x 2) (6)

- **Build and maintain water infrastructure which will help reduce water wastage**
- **Invest in better water treatment**
- **Improve water collection method example - collecting rain water**
- **New technologies can be used to extract water**
- **Improve water governance - reduces water wastage**
- **Laws to protect water resources**
- **Promote using water wisely, in communities**
- **Educate people on using water wisely**

(ANY THREE)

PART 2

ACTIVITY FIVE: [50 marks]

RESEARCH ESSAY

Instructions:

1. Write an essay of 1½ - 2 pages using the subheadings listed below.
2. **You will be required to collect/research before you write the final essay.**
3. **The information collected by you must be brought to class**
4. The final essay **MUST** be completed in class.
5. The essay **MUST** be handwritten and in your own words.
6. **NOTE:** Plagiarism / copying directly of the internet/ copying directly from AI (for example ChatGPT) **learner need to attach a copy of the article that they got their information from (chat gpt/copilot/google)** will result in you receiving a **ZERO** mark for the essay

TOPIC: WATER SHORTAGES IN SOUTH AFRICA (Gauteng)

1. **Cover page** - you must design a cover page for your essay. The cover page must highlight the issue of water shortages in South Africa
2. **Relevant Article** - you must find an article from a newspaper / internet that highlights the issue of Water Shortages in South Africa. **The article must be attached to your research.** You **MUST** summarize the article.
3. You will use the following subheadings:
 - 3.1 **Causes of water shortages in South Africa.**
 - You must discuss the economic, social and environmental factors causing water shortages in South Africa
 - 3.2 **Impacts of water shortages in South Africa**
 - You must discuss the economic, social and environmental impacts water shortages in South Africa
 - 3.3 **Strategies to address water scarcity in South Africa**
 - You must discuss at least 4 strategies that can be used to address water shortages in South Africa.
 - You **MUST** include strategies by Governments and local communities
 - 3.4 **Conclusion**
 - 3.5 **Bibliography**







TOPIC: Water Shortage in South Africa

NAME: _____

GRADE: 10 _____

STEPS		MAXIMUM MARKS	LEARNER'S MARKS	MODERATED MARKS	COMMENTS
1.	Article	4			
2.	Summary of article	4			
3.	Give causes (reasons) for problems	12			
4.	Discuss impacts of results	12			
5.	Suggest possible solutions	12			
6.	Bibliography	3			
7.	Cover page	3			
	TOTAL:	50			

EDUCATOR: _____

MODERATOR: _____



Marks	0	1	2	3	4
1. Article related to water management in SA	No article	Poor article	Satisfactory article	Good, relevant article	Excellent, relevant article
Marks	0	1	2	3-4	5-6
2. Summary of Article	No summary of article	Poor summary not very accurate/ relevant	Satisfactory summary	General summary well presented	General summary excellently presented
Marks	0	1	2	3-4	5-6
3. Give causes of water shortages	No causes provided	Partially answered Causes/ reasons not very good /or no discussion	Satisfactorily presented. Mentions physical, social and economic factors Only ONE cause	Well, presented. Discusses physical, social and economic factors Has at least TWO causes	Excellent Presented. Extensive discussion on the physical, social and economic factors discussed more causes
4. Impacts of water shortages	Irrelevant Discussion. No impacts mentioned / listed	Poor Discussion. Economic, social and environments impacts only listed	Fair Discussion. Economic, social and environmental impacts mentioned ONE impact discussed	Good to very good Discussion. Clearly outlines and discusses economic, social and environmental impacts TWO impacts	Excellent/ outstanding/ in-depth discussion on the economic, social and environmental impacts. Extensive discussion THREE or more
5. Solutions / Strategies	No clear Solutions/strategies suggested to the problem	Poor/some fairly vague solutions Suggested. Does not provide strategies/solutions from government and local communities	Satisfactory solutions Suggested. Mentions solutions/strategies by government and local communities	Good to very good solutions/ strategies to the problem Suggested. Discusses solutions/strategies by government and local communities	Excellent understanding of the Sound solutions/ strategies. Clearly outlines and discusses solutions and strategies and solutions by government and local communities
Marks	0	1	2	3	
6. Bibliography	No sources used	One / two sources used	Three / four sources used	More than four relevant sources used	
9. Cover Page	Untidy. No pictures used	Cover page with pictures	Neat Cover page with relevant picture and title	Excellent cover page, shows creativity	

TOTAL: _____

Part 3

ACTIVITY SIX: [10 marks]

MAKING PEOPLE AWARE OF THE NEED FOR WATER CONSERVATION IN SOUTH AFRICA

Instructions:

1. Use the outline of a T-shirt and design a message (words and/or pictures) to make people be **WATERWISE**
2. Your T-Shirt must have original ideas
3. Use different colours on your T- shirt
4. Your T shirt must have a slogan
5. Use the rubric below as a guide for the mark allocation.



	1	2	3	4	5
Message given	No message is given	Message is very vague	Message is satisfactory	Message is relevant	Message is relevant and very creative
Use of colour	No colour is used	Only message/drawing is in colour	T-shirt is colourful	T-shirt is colourful and the design is creative	T-shirt is colourful, design is creative and attracts attention

ACTIVITY SEVEN: [10 marks]

PROJECT BASED LEARNING

Instructions:

1. Start a **SAVE THE WATER CAMPAIGN** at school
2. Use recycled material to make posters etc that promote using water wisely
3. Give evidence (photos) of a class project,



