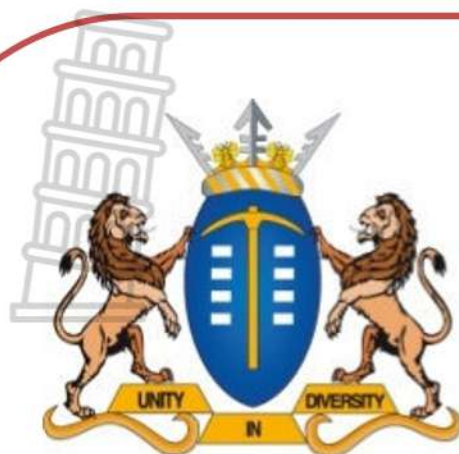




**GAUTENG PROVINCE**

EDUCATION  
REPUBLIC OF SOUTH AFRICA

## RESEARCH TASK

|  |              |   |                  |
|--|--------------|---|------------------|
|  | SUBJECT      | : | GEOGRAPHY        |
|  | SUBJECT CODE | : | GEOG             |
|  | GRADE        | : | 10               |
|  | EXAMINER     | : | GAUTENG PROVINCE |
|  | TOTAL MARKS  | : | 100              |

NAME AND SURNAME OF LEARNER:

\_\_\_\_\_

GR 10: \_\_\_\_\_

NAME OF SCHOOL: \_\_\_\_\_



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GAUTENG DEPARTMENT OF EDUCATION



GEOGRAPHY- RESEARCH TASK

LEARNER DECLARATION FORM

I \_\_\_\_\_

(CANDIDATE'S FULL SURNAME AND NAMES) hereby declare that all information given in this task is my own, original work and that if I have made use of any sources, I have acknowledged this.

I agree that if it is determined by the competent authorities that I have engaged in any fraudulent activities whatsoever in connection with my research task, I shall completely forfeit the marks gained for this assessment.

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CANDIDATE'S SIGNATURE

Stanmorephysics.com DATE



## **PART 1**

### **STEP 1: HYPOTHESIS:**



### **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

### **STEP 3: MAPPING**

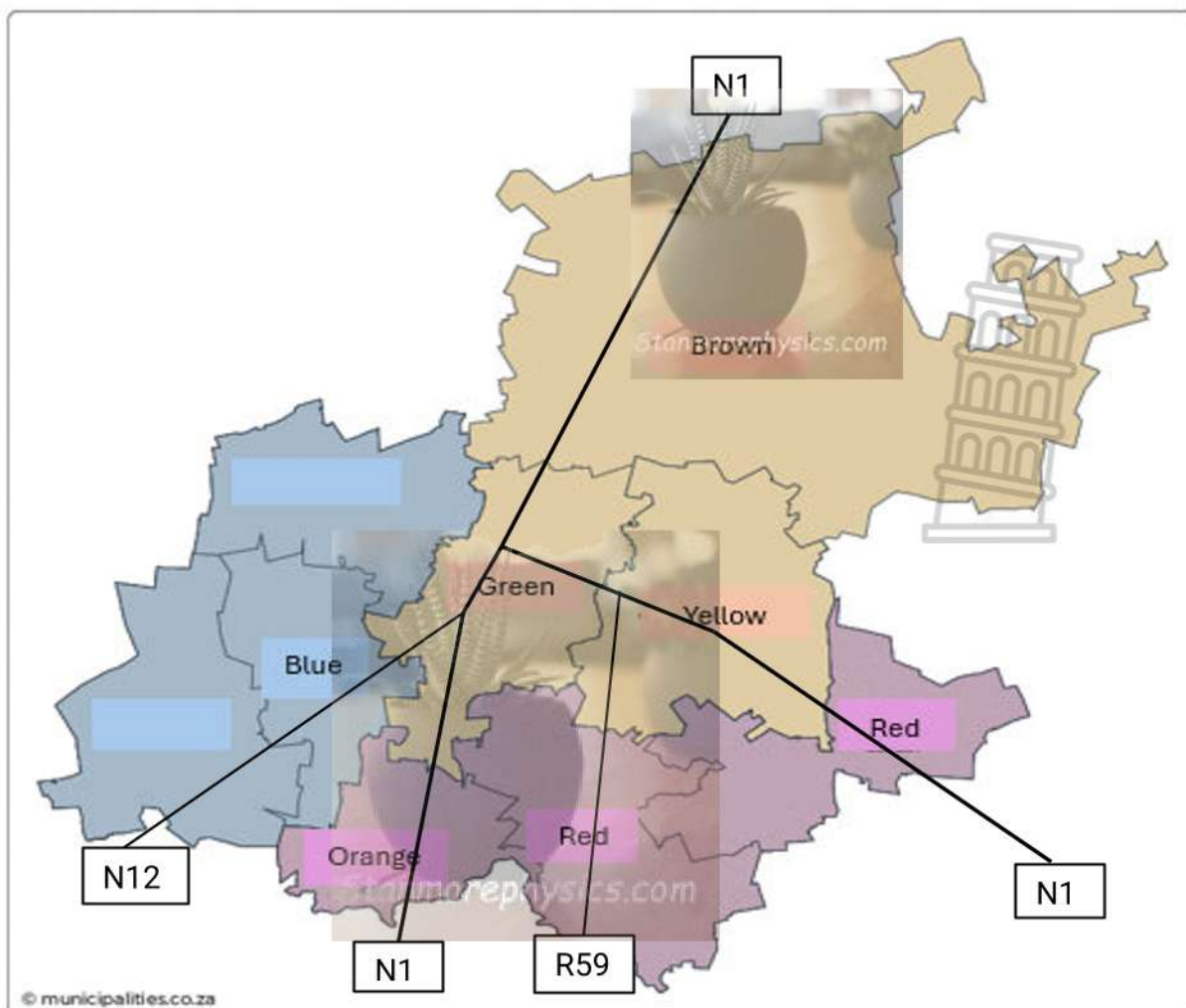


### ACTIVITY ONE: [4 Marks]

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

HEADING: \_\_\_\_\_

#### (1A) Provincial Map:



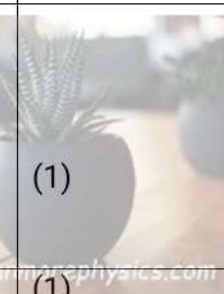


(1B) District Map:





### 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                                                         | <div style="border: 1px solid black; width: 40px; height: 30px; margin-bottom: 10px;"></div> District name:<br><div style="border-bottom: 1px solid black; width: 100px; display: inline-block;"></div> (1)                                                                             |
| Give the name of the road/freeway that passes through the municipal area where your school is located.                                                                                                            | <div style="border: 1px solid black; width: 150px; height: 30px; margin-bottom: 10px;"></div> (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.<br><br>Buffer your district with the color given to your district. (color pencil) | <div style="border: 1px solid black; width: 100px; height: 100px; position: relative;"> <div style="position: absolute; top: 50%; left: 50%; transform: translate(-50%, -50%);">  </div> </div> (1) |
| Name of the municipal area                                                                                                                                                                                        | (1)                                                                                                                                                                                                                                                                                     |
| <b>TOTAL</b>                                                                                                                                                                                                      | <b>/4</b>                                                                                                                                                                                                                                                                               |



## 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%                    |

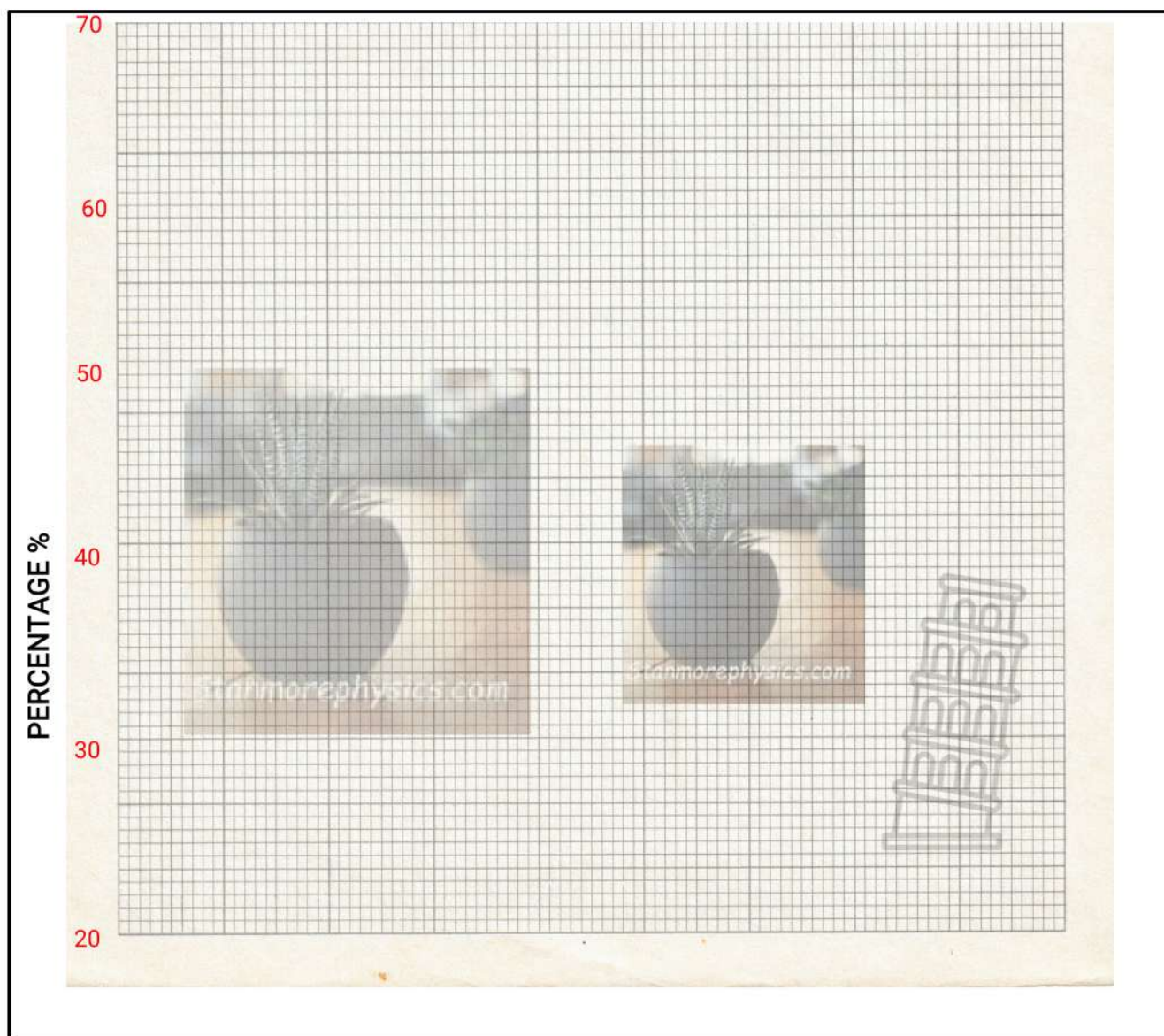
|                             |     |
|-----------------------------|-----|
| (3) Municipal service usage | 17% |
| (4) Industries              | 18% |
| (5) Agriculture             | 55% |

**ACTIVITY TWO: [6 Marks]**

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

below

**TITLE:**\_\_\_\_\_



SECTOR



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

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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



1. According to the article, what is the average consumption of water in South Africa, per day (1 x 2) (2)

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2. List TWO reasons, according to the article, why there is an increasing demand for water in South Africa (2 x 1) (2)

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

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

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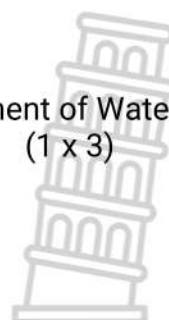
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5. Discuss THREE ways in which the Department of Water and Sanitation can ensure that people have access to enough water (3 x 2) (6)

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(ANY THREE)

## PART 2

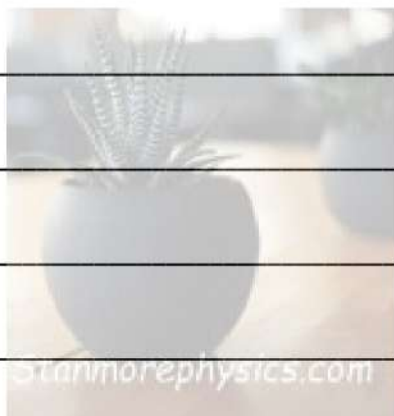
ACTIVITY FIVE: [50 marks]

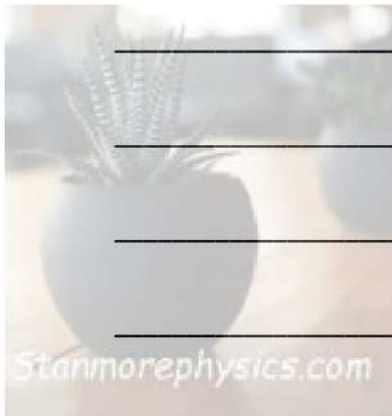
RESEARCH ESSAY

COVER PAGE













## 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                                                               |
|----------------------|---------------------|-----------------------------------|-------------------------|--------------------------------------------------|-----------------------------------------------------------------|
| <b>Message given</b> | No message is given | Message is very vague             | Message is satisfactory | Message is relevant                              | Message is relevant and very creative                           |
| <b>Use of colour</b> | No colour is used   | Only message/drawing is in colour | T-shirt is colourful    | T-shirt is colourfull and the design is creative | T-shirt is colourful, design is creative and attracts attention |

**ACTIVITY SEVEN: [10 marks]**

**PROJECT BASED LEARNING**

**/10**

**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,






/10

