# GEOGRAPHY

## WEATHER and CLIMATE

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***Hi there Geographers!***

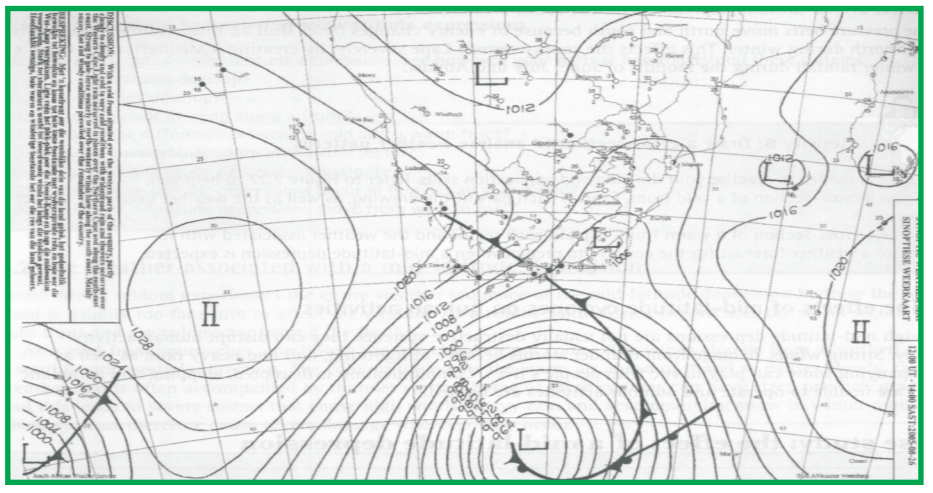
In this article we will cover the balance of Weather and Climate dealing with a bit of Secondary Air Circulation, Tertiary Air Circulation and Climate Hazards.

Remember: Time is of the essence. You, as a learner, will need to do as much as possible on your own. This will take the pressure of cramming away from you towards the end of the year.

In each source-based question (questions based on mapwork, diagrams, sketches, pictures, statistics), there are questions of varying levels. You need to especially work with those types of questions that test your ability to reason. Here your values and attitudes to certain situations may be tested.
*Below follow a few examples:*

***QUESTION 1***

Refer to the extract of a Synoptic weather map below to answer the questions set:



***Skills -type questions (LO1)***

1.1 Identify the cyclones and anticyclones on the map.
1.2 State the season represented. Give reasons from the map for your answers.
1.3 Illustrate wind movements in the SAH.
1.4 Draw a cross-section between the cold and warm from of the mid- latitude cyclone.
1.5 Tabulate the differences between the weather experienced between the cold and warm fronts of the mid-latitude cyclone.
1.6 Write out a weather report for the area you live in based on the synoptic map provided. [You may be asked to present this report in class/in the assembly.]

***Questions that demonstrate understanding and knowledge of aspects in geography (LO2)***

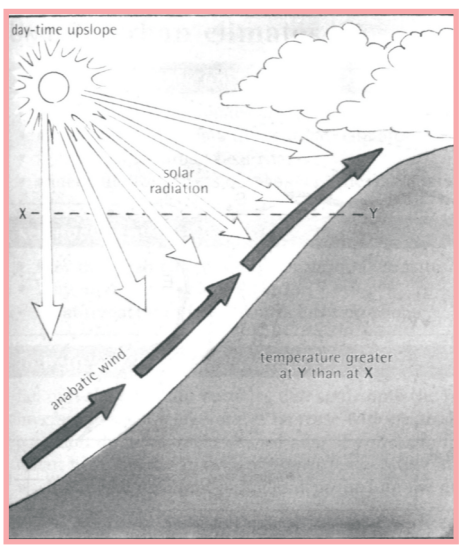
1.7 Describe the weather being experienced in Port Elizabeth.
1.8 Explain the effect of the cold front on small-scale fishing in the Port Elizabeth region.
1.9 Explain the effect of the SIH on the movement of the mid-latitude cyclone.
1.10 How does the Western Cape region benefit from the mid- latitude cyclone passing through?
1.11 The interior of the country is characterized by thermal thunderstorms. Do you agree?
Justify your answer with evidence from the map provided.

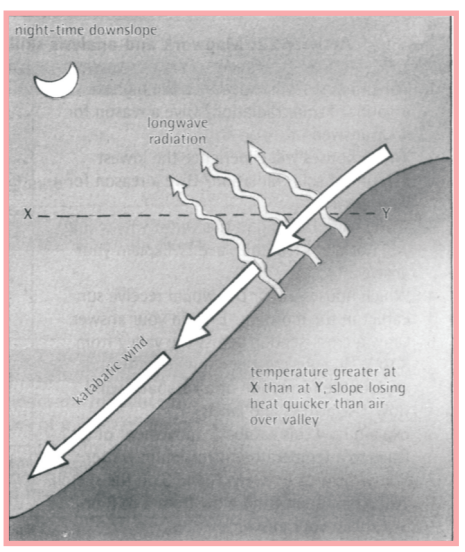
***Question that need you to apply knowledge and skills in the real world shows level of competence to real issues (LO3)*** (On a local and national scale)

1.12 You are scheduled to leave to Port Elizabeth along the N2 Garden Route from Durban. Explain how a knowledge of synoptic weather maps can affect your trip. Provide evidence from the map.
1.13 The rich generally manage harsh weather conditions much better than the poor. Do you agree? Use examples to illustrate your choice.
1.14 As the mayor of Port Elizabeth, suggest some measures you would employ to cope with the flooding that is likely to occur in the low-lying areas as the cold front passes.

***QUESTION 2***

Refer to the sketches provided and then attempt the questions set:




2.1 Using the above sketches tabulate the differences between Anabatic and Katabatic Winds. LO1
2.2 Describe briefly how Katabatic winds occur. LO2
2.3 Explain the formation of the thermal belt (LO2) and its effect on settlement in the valley. LO3
2.4 A combined school (primary and secondary) is situated on the valley floor. What effect would Katabatic winds have on:
a. Learners walking long distances to school (especially in winter).
b. A municipal decision to locate a saw mill in the area.
c. Cultivation of cash crops from season to season.
d. The levels of pollution close to the valley floor, its effect on the inhabitants as well as the learners of the school.
e. Motorists using the mountain slope roads at night and early morning.

These type of questions test your insight into applying what you have learnt in real situations LO3.

Some things in Geography cannot be 'taught'. You need to learn them by reading and understanding. The more you read through the notes/newspapers, etc, the more you will make sense of the subject content and the longer will you remember the information.

***e.g. Factors contributing to higher urban temperatures.***

? Geometric shapes of buildings, artificial substances, heat generating activities such as hotels, restaurants, and so on. This is largely general knowledge and a good sense of logic can be beneficial to you.
? Causes and Impact of Global Warming, Human hazards of floods and droughts, Sustainable measures to manage and control such hazards these topics also lend themselves to be 'self-taught' aspects in geography.

Because these are topical aspects, they appear regularly in the print and other media (newspapers, magazines, television, radio, etc). Reading about such aspects and engaging in discussions with others will create a better understanding of the subject content and you will be able to score very well in tests and examinations.

***Remember:*** the focus of geography at Senior Certificate level is SUSTAINABILITY. You must be able to use the knowledge and skills you learn in the classroom and address challenges facing us (man) with the view to ensure the survival of the world and its people.

**Some challenges we need to prepare for:**

* How do we plan human activities in a valley to avoid the effects of Katabatic winds?
* Each year hundreds of lives are lost as a result of floods in South Africa. Can we identify such places in the country and with the aid of maps arrive at meaningful solutions? Compare the international models applied all over the world and see how it can work here.
* What can each one of us do to prepare for the ravages of drought?
* The city centre has lost its attraction. Most people prefer visiting the malls and outlying business districts than going into the city centre. What has happened here to make people avoid the CBD? Who are most affected the rich or the poor? How can we rejuvenate the center of the urban areas and attract the people once more?
* Within a couple of decades Mt Kilimanjaro would cease to be a tourist attraction. Why? Who is the cause? What can we do to save the people of Kenya?

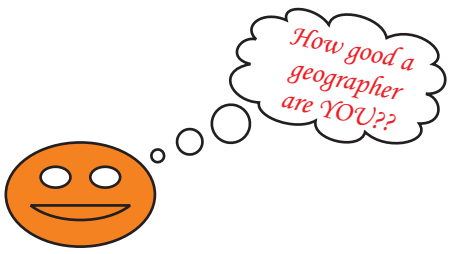
You will notice that all the above questions provoke thinking at a high level this is critical thinking. You are forced to look at issues from a number of perspectives, not only from one side.

***Geography empowers one to :***

? Place one's litter in a refuse bin.
? Plant a tree (alien or indigenous???)
? Save water (rain harvesting…)
? Protect the ecosystem (plants and animals, including the soil creatures that we are 'scared of' like worms, snakes, rats, etc.)
? Become self-sufficient.
? Recycle

***Important:*** Next month we will cover mapwork (Paper 2). Some aspects that we will attend to:

? Calculations
? Map Projections
? GIS




**Good Luck!!**