

MEET OUR GEOGRAPHY EXPERTS



TOP GEAR: When Dave Gear's not in the classroom, he's out showing tourists the geographical wonders of Joburg's mine dumps



Dave Gear

You'll come out of your Geography exam knowing more than when you went in

Born in Johannesburg in 1948, Dave knows and loves the city and runs tours as a side-line. He matriculated from St John's college and studied Geography at Wits and Unisa. He was the founder chairman of the SA Students' Geography Association in 1970, as well as the chairman of the Association of Geography Teachers from 1977 to 1980. He has published several series of Geography textbooks and served as the vice chairman of the Geography Standards Generating Body. He was recently involved in

the Matric 2nd Chance programme and is currently the director of the Thandulwazi Saturday Science School at St Sthilian's College.

Pule Rakgoathe



WEATHER MAN: Our Geography expert, Pule Rakgoathe, practises what he preaches

Pule Rakgoathe matriculated at Masedibu High School, in Limpopo. He qualified as a teacher in 1994 after obtaining a BA Ed degree from Vista University. He studied further at Wits University, where he obtained his B Ed and M Ed degrees in 1995 and 1998. He started his teaching career in 1995 at the Light Study Centre and later moved on to Seanamarena High School in Soweto, where he served as a Head of Department for Social Sciences. Because of his passion for Geography, his learners achieved several distinctions during his career as a Geography teacher. Pule also taught in the Secondary School Improvement Project (SSIP), organised by the Gauteng Department of Education for underperforming schools in District 11, during 2005 and 2006. He then went on to become the first Sepedi weather presenter for SABC 2. He also taught Geography on the Matric 2nd Chance satellite broadcast channel for the 2007 matrics who rewrote their exams in May/June this year. So now you know why his face looks so familiar!

NEXT WEEK : ACCOUNTING

Your world at your finger tips



TEARING THEIR HAIR OUT: The pressure of preparing for their matric finals is starting to get to the learners of Bhukulani Secondary School in Zondi, Soweto

Managing your time in the examination

The Geography exam consists of two papers: Paper 1, Theory (3 hours, 300 marks), and Paper 2, Practical (1½ hours, 100 marks). It is important to manage your time well so you are able to finish the whole paper. Do not write too much on sections you know well and leave out other questions. Be in the examination room 20 minutes before the starting time to get settled. Read through the question paper carefully before you start writing and decide which questions to choose.

Paper 1 (Theory): There are four questions, but you need answer ONLY THREE. You can therefore choose whether to do two questions from Section A and one from Section B OR whether to do two from section B and one from Section A. Each question counts 100 marks. Spend about one hour on each question.

Paper 2 (Geographical Skills and Techniques): Answer ALL the questions. Spend about 25 minutes on Question 1 (multiple choice) and about 65 minutes on the rest of the paper.

PAPER 1: THEORY (300 MARKS, 3 HOURS)

There are two sections in Paper 1, Physical Geography and Human Geography, with two questions each (remember that you need to answer only three of these four questions). Be aware that Physical Geography mostly requires precise knowledge, whereas Human Geography requires the ability to interpret and understand, so make your selection according to what you are better at.

Section A: Physical Geography – Climatology and Geomorphology

Know the vocabulary that will be used in this section – go through your notes carefully and make sure you know the meanings of all the terms and acronyms used. Study the resources carefully. For each resource, whether it is a photograph, map, drawing, table, graph or text, ask yourself: "What is this about? What is it telling me? What part of my theory knowledge does it relate to?" Read all the headings and labels carefully. When you are preparing for the exam, look at all the different maps in your notes and textbooks and make sure that you know where in South Africa they fit.

Don't be surprised if you get resources you have never seen before. The examiners do this on purpose: they want to know if you can use your knowledge, not just learn it off by heart. Yes, you must learn your definitions and supporting facts but if, for example, you have studied slope diagrams of the Magaliesberg, the same ideas will also apply to slopes in the Drakensberg or the Cape fold Mountains.

In this section, you will often be asked to explain your ideas. Very often this can best be done with a diagram. You do not have to be an artist to draw a good diagram. Keep your diagrams simple, use colours and label them neatly and accurately.

Make sure you know pressure belts and winds blowing along the pressure gradient, tropical and mid-latitude cyclones, subtropical anticyclones and their resultant weather.

You need to be able to identify them on a synoptic map by interpreting the various symbols. Remember that a mid-latitude cyclone is identified by fronts (usually a

cold front approaching south Western Cape), while a tropical cyclone is usually identified by circular isobars on the eastern side of the country, with the symbol of an eye in the middle and/or a name. Know the cross-section view of these systems and their impact on the areas over which they occur. Remember that an H on a synoptic map stands for a high pressure cell. Its name will depend on whether it is situated over the interior (Kalahari HP), on the eastern side over the ocean (South Indian HP), or on the western side over the ocean (South Atlantic HP). Know South Africa's weather patterns and local climates.

For fluvial processes, understand drainage, land forms, mass movements and hazards. Be able to differentiate between types of rivers, as well as explain key concepts related to river systems and the phenomenon of river capture. Be able to interpret information on a hydrograph, differentiate between various types of landforms, and describe slopes and mass movements.

Section B: Human Geography

This section allows you more opportunity to express your own opinions. More questions in this section will start with "Why...", "Explain..." or "Discuss..." These questions may have more than one correct or valuable answer, so never leave out a question because you are not sure what to write.

Know rural and urban settlement as well as their related issues (the distinction between the two focuses more on function than anything else). Study the diagrams provided carefully and underline the key words. Know how the different sectors of the economy, such as the primary, secondary, tertiary and quaternary sectors, contribute to the development of South Africa. The roles of various industries and the government in developing the provinces are important. These will be linked to water as a critical resource, and to transport in promoting economic development. Be able to define concepts such as Gross Domestic Product, Gross National Product, trade balance and balance of payments.

PAPER 2: PRACTICAL – GEOGRAPHICAL SKILLS AND TECHNIQUES (100 MARKS, 1 ½ HOURS)

In this paper you will be expected to read, analyse and interpret photographs, topographical and orthophoto maps. You also need some theoretical background on Geographical Information Systems.

Let's unravel the secrets of this paper:

1. Accuracy (because you will be dealing with measurements and calculations); and
2. Knowledge of the conventional sign-language used on a map to indicate particular features.

Go into your map work exam with all the right equipment: a 30cm ruler with clear units, a pen, a protractor, pencil crayons, HB pencils, an eraser, string and a calculator.

You will be given a topographical map with a scale of 1: 50 000 and an aerial photograph. You may also be given an orthophoto, with a scale of 1: 10 000, covering part of the same

area as the topo map. Before you start writing, spend time studying the map and orthophoto. Which part of the map is covered by the orthophoto? Where are the highest and lowest points? Where in South Africa is this? Which way are the rivers flowing? What economic activities take place here?

The exam will be divided into three main parts: The first group of questions will probably be multiple choice and will test basic map skills such as scale and direction. You will also be asked what the various symbols and numbers mean.

The second group of questions will ask you to do various calculations, such as gradient and area, as well as complete and interpret cross sections. Remember that to find distance in km, measure in cm and multiply by 0,5 km. When you measure magnetic bearing, remember to always start from True North and measure in a clockwise direction. The Magnetic Bearing = True Bearing + Magnetic Declination. To find the coordinates of a place, you need to measure the latitude and longitude in degrees, minutes and tenths of minutes (or seconds). Height on all maps is shown in metres read from contour lines, spot height, trigonometric beacons and bench marks. Do not forget the formula for calculating gradient: $G = \frac{VI}{HE}$

Be able to draw a cross section and determine the intervisibility of the places on a sketch you have drawn. Know how to calculate the vertical exaggeration of your cross-section.

The third group of questions will ask you to interpret information. For example, you might be asked why a particular site was suitable for a golf course and not a residential area.

Finally, there will be a fourth group of questions about more advanced mapping technologies such as GIS. These are covered in your textbook and the questions will not be difficult. Make sure you know the definitions and you will do well.

Why study Geography?

Geography is the study of physical and human processes and spatial patterns on Earth in an integrated way over space and time. The study of Geography equips learners with knowledge, skills and attitudes which will stand them in good stead throughout their lives. Learners doing this subject can follow careers in geology, geomorphology, town and regional planning, education, climatology, environment and tourism, and weather presentation (radio and television).

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