# Geography

2010 ASSESSMENT REPORT

Society and Environment Learning Area

Government of South Australia

SACE Board of SA

# GEOGRAPHY

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## GENERAL COMMENTS

The assessment components reflected the objectives of the course and student performance was judged against the assessment criteria for each component.

The individual fieldwork report gave students the opportunity to use a range of fieldwork techniques in order to investigate an issue, or test a hypothesis of their choosing. This must be clearly linked to a different option topic from that of the geographical enquiry. The most successful students developed a clearly expressed focus for their investigation, and employed a range of techniques to collect substantial data. This allowed for a detailed analysis and comprehensive report, which led to sound evaluation of findings and methods.

The geographical enquiry gave students the opportunity to investigate and research an aspect of the option topic of interest to them. The guidelines directed students to use a variety of geographical skills to analyse their chosen issue. The moderation panel felt that the most successful students developed a clearly worded question for their enquiry that was framed around a specific issue with a spatial dimension, and also included sufficient secondary data to allow for effective analysis.

The individual fieldwork report and geographical enquiry must be selected from two different option topics. If a negotiated topic is selected this must be negotiated with the appropriate SACE Board Officer. Please refer to the relevant section of the SACE website for information regarding the guidelines.

Teachers are required to refer to the Learning Area Manual for specific information about the sample of materials to be submitted for moderation. No appendices are required. Verification sheets should be stored at the school and not sent with the sample. The moderation panel recommended that teachers should make use of the performance standards for each component (available on the SACE website) to assist students in addressing all of the criteria for judging performance.

Teachers are not required to write comments on the text or cover sheet. Student names, school name and teacher names should not appear on these tasks, only the candidate number. The final score should be a whole number only.

The moderation panel has again requested that in future individual tasks are **not** enclosed in clear plastic bags in consideration of environmentally responsible use of resources, and the time taken, for both teachers and moderators, to handle the moderation materials.

The examination was deemed to be challenging but not exclusionary, with a broad range of varying marks and questions that covered the course. It was aimed at an appropriate standard for students completing Year 12 Geography.

## ASSESSMENT COMPONENT 1: INDIVIDUAL FIELDWORK REPORT

There was a broad range of topics chosen and the general level of achievement was good. Successful students were able to structure a report appropriately, collect substantial and relevant data, present and discuss their findings, and integrate their material effectively across the whole report. There was a pleasing range of fieldwork techniques evident across the samples submitted to the panel. Again there was evidence of the highly skilled use of information and communication technologies (ICT) in the production of enquiries, although there was a lack of the use of geographic information systems (GIS). Students were able to demonstrate the ability to choose, apply, and evaluate a range of geographical skills. The fieldwork report allows students to demonstrate an understanding of the patterns and processes of geographical issues, and the complex interaction and interdependence of people and the natural environment. Students are then able to demonstrate the ability to present their findings in an original and well-structured manner. They can then demonstrate understanding and appreciation of conflicting demands and diverse values, perceptions, and views related to geographical issues, and come to justifiable conclusions. The students then use these conclusions to develop realistic and appropriate recommendations in relation to their issue or hypothesis.

A number of strengths were evident in the more successful fieldwork reports. The most successful reports were centred on a clearly defined local issue or testable hypothesis that was linked to an option topic, and they had a spatial dimension and a range of good quality data could be re-used for further investigation. Smaller scale issues were often more successfully conducted. The successful students used a range of fieldwork techniques that enabled good quality quantitative data to be collected that lent itself to further analysis. Surveys appeared to be better designed and resulted in more good quality data. Good quality maps, some hand-drawn, were well used and integrated into the report and were supportive of the investigation. The use of a range of methods to present findings was evident in the stronger reports. A temporal element, as well as a spatial element, produced interesting studies. All figures were clearly labelled and referred to in the text in the most successful examples. Pure description of the findings was limited, and analysis and discussion was more evident. Data was effectively synthesised and justifiable conclusions were drawn. Clear and relevant recommendations were articulated. Many students had used www.nearmap.com and aerial photos very effectively to show location factors and influences.

The most successful reports displayed confidence in using correct geographical terminology. There was less evidence of problems in meeting the word limit, and students used a variety of methods to communicate their ideas. Overuse of tables is not recommended.

The moderation panel identified some specific areas that may help to improve achievement in this component.

- The report must be centred on fieldwork data (primary data) that has been collected by the student. Secondary data can be used to add background, but should not be the main focus of the report.
- Ensure the report has an appropriate geographical context; this should be clearly stated and not just presented as a series of maps. It is crucial that the report has a spatial element, allowing it to be linked to location, and variations related to location.
- A range of fieldwork methods will produce better quality data that allows for more comprehensive analysis. The relative strengths and weaknesses of these methods need to be evaluated and expressed clearly.

- Photographs can be very effective if used sparingly and specifically.
- Perception or qualitative data can be difficult to collate and analyse. A more successful option is to focus on the collection of quantitative data that can be mapped, graphed or otherwise analysed. Avoid the use of adequate/inadequate in the question posed, unless the measure of this is very clearly defined.
- Judicious use of surveys, and careful design of a survey will result in better quality data.
- The survey sample size should be reasonable for students to draw realistic and justifiable conclusions; in most cases a sample of 30+ for surveys is recommended.
- Reports should be carefully set out. The more successful reports are clearly set out with a specific structure related to the performance standards.
- Avoid lengthy description of data. Instead students should try to analyse and discuss their findings in relation to the question or hypothesis under investigation.
- Students do not need to 'solve' an issue, but need to come to a set of recommendations, or in the case of hypothesis testing, 'accept or reject' the hypothesis.

## ASSESSMENT COMPONENT 2: GEOGRAPHICAL ENQUIRY

Although a number of formats were available for the presentation of this component, the most common format was in the style of a report. There were a few broadsheets, which were often successfully completed, and fewer digital slide presentations. Few students used an essay format, and most found it difficult to meet all the requirements of this task. Again there was evidence of highly skilled use of ICT in the production of enquiries. Students were able to demonstrate the ability to choose, apply, and evaluate a range of geographical skills in order to identify, explain, and evaluate the environmental, social, political, and economic consequences of management responses to geographical issues. Through this they were able to demonstrate an understanding and appreciation of conflicting demands and diverse values, perceptions, and views related to geographical issues, and ultimately to come to justifiable conclusions. An important element of the enquiry is for students to demonstrate an understanding of the contribution of a geographical perspective to sustainable futures in the context of their investigation.

A number of strengths were evident in the more successful enquiries. Overall there was evidence to show the enquiries were well-structured and that students were attempting to address all of the elements of the enquiry. The most successful examples were centred on a clearly articulated question that had a spatial dimension. The best titles were well-worded, often as a question. This led to an enquiry that was well-structured and able to be mapped and analysed using geographical concepts and ideas. The most successful students were able to demonstrate the dimensions of the investigation through the use of other communication methods, for example, well constructed maps, flow charts, diagram graphs and tables that were annotated by the student. Many students demonstrated high quality research skills and sources were well referenced. Evaluation of these sources was well done and comments on bias were present for some issues. Successful students used geographical terminology and the 'language' of the option topic with confidence and to good effect in discussion. The most successful enquiries demonstrated comprehensive integration of the materials, leading to better organisation of the student's work and allowing the reader to follow clearly the line of discussion throughout the task. Many students

produced excellent maps, diagrams and graphs; however there was limited evidence of the use of GIS.

The moderation panel identified some specific areas that may help to improve achievement in this component.

- Ensure that the topic has a clear geographical focus.
- Negotiated topics must be approved by the SACE Board of SA.
- The enquiry must *not* be from the core, or focus on population, or water.
- The development of a well-worded issue, often in the form of a question, that lends itself to spatial analysis, can be of assistance to students as they research their topic.
- Avoid the use of the words adequate/inadequate or effective/ineffective in the title unless the method of assessing this is clearly articulated.
- Ensure that the issue has an impact across all the scales.
- Define the topic clearly to illustrate the direction of the research.
- Avoid topics that are too broad and general.
- Develop and adapt individual maps that have been 'uncluttered', have a good resolution, and are not pixelated.
- Use the performance standards to assist in organisation of the enquiry and in the assessment of achievement.
- Concise analysis is preferred when making comparisons; avoid description.
- Use other forms of expression rather than just text.
- Integration of all the materials across the report, including clear labelling and reference to all figures included in the enquiry.
- The sustainable futures element could be addressed more explicitly.
- Bibliographies should be carefully constructed and detailed.
- Ensure that the enquiry falls within the word limit specified in the curriculum statement. Tables should not include analysis of the issue under investigation. Annotation should not be analytical.
- Refer to the *Learning Area Manual* for specific information on samples for moderation.

## ASSESSMENT COMPONENT 3: EXAMINATION

### GENERAL COMMENTS

The external source materials consisted of one page of approximately A2 size containing a map and a key. In the questions within the examination booklet a range of different skills were tested using a variety of different stimulus materials including graphs, maps, tables and images that related directly to areas of the core topic. Most students were comfortable about accessing and understanding the source materials.

Questions varied in difficulty and required students to use different skills, which allowed for the full spread of achievement across the paper. The aim of the examination was to give students the opportunity to demonstrate an understanding of the patterns and processes of geographical issues, and the complex interaction and interdependence of people and the natural environment at a range of scales. Students were expected to apply their conceptual knowledge to unseen material and many were able to do this, but with varying levels of success.

The more successful candidates used plain English to express their answers. Most students attempted all parts of the paper, and there was little evidence to suggest that students were rushed for time to complete the examination.

It is worrying that some students struggled to demonstrate an understanding of some fundamental geographical concepts, key ideas, and relatively basic geographic processes. Concepts such as estimating gradient, scale conversion for distance calculation, interpretation of symbols, understanding what a watershed might look like on a topographical map, and matching photographs to areas of a map continue to be inconsistently demonstrated. Students are reminded to read the directions in each question carefully and respond with care. Some students seemed to be unprepared for explanation of simple concepts, and the additional use of examples to illustrate their knowledge and understanding. Where students missed a command term the answer was invariably incomplete or poorly worded. Students are encouraged to write their answer as fully as possible in order to show the marker that they have responded correctly; writing an abbreviated answer may lead to ambiguity. The most successful students wrote a full answer where necessary and responded to the command terms in the question, allowing the maximum marks to be allocated.

The two extended-style questions (10 & 16 ) presented the greatest challenge for the majority of students. These questions provided an opportunity for students to demonstrate their understanding and appreciation of conflicting demands and diverse values, perceptions, and views related to geographical issues, and come to justifiable conclusions. Some students appeared to be unprepared to answer this style of question. Markers noted that the most successful answers were well-organised and made clear reference to the stimulus materials. A simple list in response to this style of question is unlikely to contain the level of detail necessary to reach the higher levels of achievement. Students are advised to read the question carefully and break it down into the various instructions to allow for a more successful approach to the answer.

The most successful students were able to use correct geographical terminology and concepts to a high level. These extended answers were well-constructed and organised and students demonstrated an excellent ability to use their knowledge and understanding appropriately to address the particular requirements of the question. The most successful students identified the command terms in the question by using a highlighter, or underlining the words, and this assisted them in their focus. These students examined the additional material carefully and used it to great effect in their answers. Where a question clearly asked for supporting evidence from the resources provided students are advised to use them as fully as possible.

Teachers are advised to explicitly teach examination strategy and the careful reading of questions. Opportunities to practice past examination questions and to analyse responses should be offered to students. Emphasis should be placed on connecting the question to the marks available, and helping students to understand how they should structure their answer for maximum success. Work should also be undertaken on a class and individual level to assist students to express themselves clearly, and how to structure their answers to meet the requirements of the questions. Extensive practice in interpreting data presented in different ways, should be offered to students. Using different graphs, being able to interpret a satellite image or aerial photo, and identifying trends and ideas from tables of data, will assist students in tackling these questions with more confidence.

## CORE TOPIC: SHORT AND EXTENDED ANSWERS

Mapping is always an examination element and teachers are advised to explicitly teach their students all the basic mapping skills and ensure that they get sufficient practice interpreting maps from various unseen locations. Students are encouraged to attempt all the questions and not to leave blank responses. Students need to read

the questions carefully and use the command terms to guide them in constructing their answers.

Question 1(a)
Many students selected the correct answer.

Question 1(b)
Some students were confused about this concept and it was not well answered.

Question 2
Generally well answered although some struggled with the curved railway line. Careful consideration should be given to the teaching of scale.

Question 3
Many students were able to select the correct response of Box C.

Question 4 (a)
Generally well answered; students did not get confused with directions of the compass, but used the degrees.

Question 4 (b)
(i) Generally well answered, however students need to use good English to express their ideas.

Question 4 (b)
(ii) Many students were able to produce a clear diagram using some elements of the labels. It is important to read the instructions carefully in order to meet the requirements of a question. A diagram with no labels, no matter how good, was considered incorrect, which is unfortunate as some of the diagrams were particularly impressive possibly due to fieldwork completed earlier in the year.

Question 4 (c)
Almost all students were able to select the correct choice.

Question 5 (a)
This question tested students' understanding of the geographical relationship of different features. Students who examined the map carefully should have been able to see the relationship between the woods and watercourse. Most students answered this correctly.

Question 6
The most successful students read the question carefully and responded accordingly. There were some good attempts at explaining the relative advantages and disadvantages of the two maps, however there was some confusion about which map had a smaller scale. Teachers are reminded to teach scale carefully to ensure that students understand this concept.

Question 7
This question was relatively well answered with most students selecting $4^{o}$ west. The most common error was $86^{o}$ west. This is a basic geographical concept and should not be ignored.

Question 8 (a)
This was a challenging question with around 40% of students answering correctly. There was evidence of confusion between water-course and watershed as a

concept, and there was a lack of specific reference to map evidence which impacted on student success.

Question 8 (b)
Most students answered correctly.

Question 9 (a)
Many students described the pattern but did not explain it. Careful reading and practice of these types of questions before the examination can improve student results in this area.

Question 9 (b)
This was poorly answered with responses across all the options. Few students recognised variability as the correct response.

Question 10
This question was challenging for most students. There was poor recognition of the concept of changing perception of resources. Many students reiterated facts from the tear-out sheet without linking them to the question. Some students analysed the value of hedgerows and their protection. The more successful answers were explicit in their referral to changes over time and explained the idea that economic and social change alters the perception of resources. Few students discussed ‘needs’ and ‘wants’.

Question 11 (a)
Most students clearly understood this concept but did not read the question carefully – only a 3-link food chain was requested. Answers that merely joined the components were not awarded marks.

Question 11 (b)
Generally correctly answered although some students did not read the question carefully, which resulted in a confusing answer.

Question 11 (c)
This was answered very well, with many students using the term ‘competition’ to explain the success of one species over the other.

Question 11 (d)
Most students were able to select the correct response, but it did require careful reading of the question.

Question 12
Students were required to use the map to help them explain the link between hedgerows and isolated species; the most successful answers did this explicitly. Some students were able to explain that hedgerows were corridors, but did not refer to the map.

Question 13 (a)
Most students successfully interpreted the graph and they were able to identify the correct distance.

Question 13 (b)
This was generally not answered well and many students were unable to identify the link between wind speed and evaporation rates.

Question 14 (a)
Most students selected the correct answer.

Question 14 (b)
The wording of the question invited a comparison and the more successful answers did this. Using words like ‘whereas’, or ‘in contrast’ will help students to effectively compare two ideas or concepts.

Question 15 (a)
Most students understood how to calculate natural Increase.

Question 15 (b)
Terminology was sometimes confused here, but most students were able to explain that net migration is the difference between in-migration and out-migration.

Question 15 (c)
A range of correct responses was offered to this question.

Question 15 (d)
A popular response was: ‘education in family planning and availability of contraception’, but there were other well-expressed correct responses.

Question 15 (e)
Most students correctly identified stage two.

Question 15 (f)
Most students were able to select ‘more’ and had a sound grasp of the concept of dependency when related to populations.

Question 16
Generally well answered. Students who read the question carefully were awarded higher marks. Those answers that were well-organised and expressed in clear English were always more successful. A range of countries were selected with the most successful answers focused on a developed nation.

Question 17 (a)
Some students did not read the question carefully. The most successful answers effectively linked the pattern of population with the influence of climate.

Question 17 (b)
There are several factors that influence the broad distribution of world population, as identified in the curriculum statement, and the more successful students were able to express them clearly. Some students did not read the question carefully and reverted to climatic influences, therefore affecting their success.

Question 18 (a)
The more successful answers were from students who had read the question carefully and understood what was meant by distribution. They analysed the pattern in these terms and referred to the map. Less successful students simply described one element and made general statements about Africa.

Question 18 (b)
This was answered successfully by students who understood that a factor related to levels of development was required.

Question 18 (c)
There was a limited range of success in this question with many students not showing a sound understanding of GIS. They were unable to make the connection between different factors affecting infant mortality rates, and this relationship as shown on maps. There appeared to be a limited understanding of the concept of 'layers' of data in GIS and how they can be used.

Question 19 (a)
This was generally poorly answered, which is disappointing as it is a fundamental process in the water cycle.

Question 19 (b)
Few students understood that the salt or silver iodide acted as condensation nuclei for water vapour to condense onto and ultimately form clouds which may bring rain. Again this is a crucial element in understanding the distribution of natural rainfall across the planet as part of the water cycle, and should be more clearly understood.

Question 19 (c)
This question was well answered.

Question 19 (d)
Students who read the question and constructed their answer carefully were the most successful. Most students were able to identify at least one new or alternative source of fresh water; around 40% were able to explain the second. Few students made the explicit connection to sustainability. This question was worth 3 marks and students needed to consider how those marks might be allocated and structure their answer accordingly.

Question 20 (a)
Many students were able to identify reasons why the price of piped water might vary. Those that did not had not read the question properly; they only gave one factor, or just listed reasons without explanation.

Question 20 (b)
Many students appeared to misread the question and wrote about the negatives of drinking poor quality water rather than discussing the consequences of having to pay a possibly unregulated price for water; or they discussed how unregulated prices would lead to less money being spent on health and education, or how this might impact on health as water would not be used for washing because it was too precious/valuable.

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