

Geography

2013 Chief Assessor's Report



Government
of South Australia

SACE
Board of SA

GEOGRAPHY

2013 CHIEF ASSESSOR'S REPORT

OVERVIEW

Chief Assessors' reports give an overview of how students performed in their school and external assessments in relation to the learning requirements, assessment design criteria, and performance standards set out in the relevant subject outline. They provide information and advice regarding the assessment types, the application of the performance standards in school and external assessments, the quality of student performance, and any relevant statistical information.

There was a decline in the number of students studying Geography in 2013 with a final enrolment of 362 students. Students generally performed soundly within the range of assessment types. Teachers and schools have become familiar with the assessment model and the administration of the subject, and the assessments were effective.

Many students were able to show good achievement against the performance standards and demonstrated a sophisticated understanding of the key concepts and ideas. An interesting range of folio assessments was presented, and teachers and schools are developing some innovative and challenging methods of assessing student learning against the performance standards.

SCHOOL ASSESSMENT

Assessment Type 1: Fieldwork

Performance standards

A number of students met the performance standards at the highest level. A wide range of relevant fieldwork techniques were evident at moderation and this was especially true of the better students. Teachers are encouraged to guide student selection of topics and fieldwork that is relevant to that topic. The relevance of some survey questions to the fieldwork was questionable. Better students outlined details of how fieldwork was undertaken including survey sample sizes, dates of testing, etc.

Students are reminded to consider the limitations of their fieldwork techniques; this was evident in the best students' work. Teachers are encouraged to emphasise the importance of explicit evaluation of fieldwork, in particular the strengths and limitations of field techniques in text or in a table. At times teachers were overly generous in their assessment of Ap1 — evaluation of a range of geographical and fieldwork skills. The best students integrated comprehensive geographical knowledge and understanding of their fieldwork.

Teachers are also encouraged to emphasise to students the importance of illustrating the spatial nature of their topic through a range of carefully chosen maps. Highly effective mapping techniques were evident, including hand-drawn maps and modified maps generated by geographic information systems (GIS) to suit the purpose, which were used to good effect in a number of fieldwork reports.

Many students are highly skilled at using information and communication technologies (ICT). A range of techniques were used to manipulate, integrate, and present information, including writing titles, annotating the information, sourcing data,

and making reference in the report to the information, and students received credit for this. The best students perceptively analysed the spatial patterns and processes involved in their chosen topics. The better fieldwork reports included not only a description of the results, but also consideration of the reason for the results. Lack of refinement and synthesis was evident in some fieldwork reports, which clearly limited students' success.

Task design

The chosen guiding question or hypothesis can significantly influence student success in addressing the performance standards. The best fieldwork reports often emphasised the spatial and temporal nature of fieldwork. Small, local scale topics tended to be completed more successfully.

Range of topics covered

A wide variety of option topics were chosen that represented the best possible opportunities for developing, selecting, and applying a range of geographical and fieldwork skills. The inventiveness of students in developing their own fieldwork techniques to match the particular needs of their topic is to be commended.

Word count

Most students complied with the word limit specified in the subject outline.

Provision of opportunities for students to perform at all levels of the performance standards, including the highest level

The moderation panel identified some areas that will enable students to perform at all levels of the performance standards, including the highest level. These include:

- using fieldwork data (primary data) that is central to the focus of the topic rather than using secondary data as the focus of the fieldwork
- ensuring the fieldwork has an appropriate geographical and spatial context
- using different types of fieldwork to answer each aspect or question being considered
- including data that has been modified or adapted to suit the purpose of the report rather than raw data
- avoiding simple description of data without analysis or interpretation
- limiting the discussion to the local level and omitting a discussion of the national and global nature of the issue, which is not necessary for the fieldwork report
- using the structure in the subject outline to organise fieldwork and working towards assessment against the relevant performance standards
- using statistically significant sample sizes
- avoiding conclusions that are not supported by the results
- seamlessly integrating relevant geographical terminology
- removing appendices from the fieldwork report
- clearly specifying the questions that are being answered and identifying the option topic.

Teachers are reminded that fieldwork should be completed on an option topic not the core topic.

Assessment Type 2: Inquiry

Performance standards

Students were able to select, apply, and evaluate a variety of geographical skills and technologies in their inquiry. Better students successfully used the structure suggested in the subject outline and worked towards achieving the highest performance standards. Students should be commended for the highly integrated nature of their inquiries and their use of a range of technologies and variety of presentation (e.g. tables, pictures, mind maps, flow charts).

The best inquiries included more than one method of presenting information to illustrate the interdependent nature of issues within the topic. Less successful inquiries presented data with little or no organisation or structure.

Analysis of spatial patterns and processes related to geographical issues was evident in most students' work. The best students considered the complexity of the issue at a local, national, and global level. Students effectively evaluated the environmental, social, political, and/or economic implications of responses to geographical issues using a variety of presentation methods, including text, tables, flow charts, and mind maps.

Many students demonstrated strong research skills and a high degree of referencing.

The best students perceptively analysed and evaluated the conflicting demands and diverse values, views, and perceptions related to their chosen geographical issue. A number of inquiries included a skilful evaluation of the relevance, bias, accuracy, and usefulness of various sources using tables or text. The best students often sought conflicting expert opinions in order to present contrasting viewpoints.

Few students provided in-depth reflection on sustainability when examining geographical issues.

Task design

The best inquiries were framed around a question that had a spatial aspect. Issues structured around an appropriate question enabled students to achieve at the highest level against the performance standards. A number of formats were available for the presentation of this assessment type, but the most commonly used was the report. There were fewer broadsheets, which were variable in standard, and very few digital slide presentations.

Range of topics covered

The students are to be commended for selecting a wide range of controversial geographical issues including: piracy, nuclear energy, desertification, food miles, comparison of the impact of flooding on countries with different levels of economic development, palm oil, climate change and sea-level rise, crocodiles in the Northern Territory, ecotourism, and the impact of climate change on malaria.

Word count

Almost all students complied with the word limit specified in the subject outline.

Provision of opportunities for students to perform at all levels of the performance standards including the highest level

The moderation panel identified some areas that will enable students to perform at all levels of the performance standards including the highest level. These include:

- assessing the economic, environmental, and social implications of *responses* to the issue
- framing inquiries with a question, not a statement or heading

- choosing topics with a geographical and spatial focus
- selecting an inquiry topic from the option topics, not the core topic
- seeking approval from the SACE Board for negotiated topics
- developing and adapting individual maps to the intended purpose and avoiding maps that are cluttered or unclear
- synthesising and analysing rather than describing
- using a range of forms of communication
- avoiding topics that are too general
- following a structure that is related to the performance standards
- ensuring that the impact of the issue can be considered at local, national, and global scales
- using recent and relevant sources
- using the structure for the inquiry presented in the subject outline
- using detailed and specific geographical terminology
- presenting accurate and detailed bibliographies.

Teachers should look for evidence of students' learning in relation to the assessment design criteria specified in the subject outline for the inquiry assessment type.

Occasionally, a lack of drafting was evident and this appeared to limit the success of students.

Assessment Type 3: Folio

Performance standards

This year, some students produced outstanding work, which met the performance standards at the highest level. The best students demonstrated comprehensive geographical knowledge and understanding across the assessments in the folio.. Assessments that were rich in relevant geographical terminology led to better results. A number of successful responses integrated a range of technologies and different forms of presentation (tables, pictures, mind maps, flow charts).

Assessments that were structured using the performance standards led to better results.

Analysis of spatial patterns and processes related to geographical issues was evident in student work that included a range of unique maps, tables, annotations, and charts. The best students found an outstanding range of relevant information in various formats to complete their assessments. More capable students effectively used a variety of methods including text, flow charts, and mind maps to present their information. The best students provided in-depth reflection on sustainability when examining geographical issues.

Task design

There was a broad range of assessments chosen and the general level of achievement was good. Assessments in the folio should relate directly to the core topic. Digital slide presentations, broadsheets, and essays were presented as part of the folio. When assessments were designed specifically to meet the Assessment Design Criteria, students were more likely to succeed.

Some teachers limited the number of Assessment Design Criteria in their assessment design to enable all students to achieve at the highest level.

Some assessments presented in the folio were too simplistic to enable students to achieve at the highest level. In particular, mapping tests should authentically assess the depth and breadth of skills for students to achieve at the highest level.

Range of topics covered

There was a significant range of assessments presented. Mapping tests were commonly used and often enabled the teacher to limit the word count. The ecological footprints assessment was frequently used by teachers. Migration, population pyramids, and population sustainability were popular topics. A number of water topics were presented. An assessment on the global positioning system was also used this year.

Word count

Teachers are encouraged to limit the number of assessments presented, and the number of components within an assessment, and to assess fewer criteria in an assessment to avoid students exceeding the word limit. The nature of the assessments in the folio enabled most students to meet the prescribed word limit. Exams or tests with a number of extended responses made it difficult for students to stay within the word limit prescribed in the subject outline.

Provision of opportunities for students to perform at all levels of the performance standards including the highest level

The moderation panel identified some areas that will enable teachers to assist their students to perform at all levels of the performance standards including the highest level. These include:

- limiting the number of specific features of the Assessment Design Criteria assessed in each task. Where assessments required students to satisfy many criteria it was more difficult for students to succeed at the highest level
- avoiding large and complex tests and/or exams with a number of extended responses, which can make it difficult for students to stay within the word limit
- encouraging students to include scripts with digital slide presentations to assist the moderators to understand the assessment decisions
- specifying assessments with a clear geographical focus
- avoiding too many exam- or test-style assessments, which often significantly disadvantaged less able students.

EXTERNAL ASSESSMENT

Assessment Type 4: Examination

The examination consisted of a range of 26 short-answer and extended-answer questions and a two-sided sheet of additional material. Side 1 of the additional sheet comprised three maps of the same area at different scales. Side 2 comprised a range of maps and data relating to wind energy. Almost all students completed the entire paper.

Students need explicit instruction in the importance of reading all the instructions on the paper to ensure that they are considering the correct data or answering the

correct question. Students must examine the number of marks available for each question and then consider the detail and structure of their answer in order to have the best possible chance of gaining the maximum marks available.

It is important for teachers to explicitly teach examination strategy, including careful reading of the questions, to enable students to develop an effective examination technique. Students should be offered a range of opportunities to practice past examination questions and to analyse their responses. Emphasis should be placed on connecting the question to the marks available and helping students to understand how to structure their answer for success.

Students should be given the opportunity to practice the skill of clear expression. They should also be encouraged to re-read their responses critically. Students need to understand the meaning of a variety of command terms such as evaluate, compare, identify, and analyse, and be provided with practice in responding to questions that include these terms. In particular, questions using the term 'explain' had poor responses, with many students giving descriptions instead of explanations.

Students should be encouraged to use the marks as a guide to the time they should allocate to answering a question.

Extensive practice in the interpretation of data presented in different ways should be offered to students. Practice in the use of different types of graphs, interpretation of a satellite image or aerial photo, and identification of trends and ideas from tables of data will assist students to tackle data-interpretation questions with confidence. Careful attention should be paid to the wording of questions so that students clearly understand what is being asked, and then they can interpret data appropriately.

The most successful students, achieving at the highest level, used correct geographical terminology and concepts to a high level. Extended answers were well constructed and organised, and demonstrated an excellent ability to connect knowledge and understanding appropriately to address the requirements of the questions.

Students are advised to read questions carefully and use them to structure their answer. Many students identified the command terms in the question by the use of a highlighter or by underlining, and this helped them to focus their answer. In addition, some students took time to carefully examine any additional material provided and used it to great effect in their answers. Where a question clearly asks for supporting evidence from the resources provided, students are advised to use them as much as possible.

Teachers are advised to explicitly teach their students all the basic mapping skills and to ensure that students get sufficient practice in interpreting unfamiliar maps. Many students were able to show competency in a range of map-reading skills. However, there were some elements that need further attention. Students need to understand the need for accuracy, especially in locating and using grid references and reading information from graphs.

Some students lost marks through not reading the question carefully; for example, for a 2-mark question asking students to 'describe and explain', a response that included only one of these requirements could not be awarded more than 1 mark. Teachers are advised to ensure that students have been exposed to the full extent of mapping and spatial skills detailed in the subject outline.

Question 9 proved a challenge for many students. The term 'relief' was not known and a few gave long answers that were incorrect.

Some students were careless in their reading of data from graphs or maps, and lost marks due to inaccurate interpretations, such as in Question 10, which required a six-figure grid reference.

Many students had difficulty applying the concept of scale to identify the image with the largest scale in Question 11.

There was considerable variation in the ability of students to clearly express the meaning of sustainable development in Question 12(a). The more successful students were able to clearly explain the meaning of sustainable development, especially the future effect of this concept. Students with a limited understanding of the concept focused on waste production or the use of renewable resources without providing a holistic explanation.

While some students have a clear understanding of latitude and longitude, many were not able to distinguish between the two and consequently were unable to answer Question 13(a) correctly. Teachers should ensure that students have a working knowledge of latitude and longitude.

There were a number of well-expressed, sophisticated answers to Questions 13(b) and 13(c). Students showed a sound understanding of the interactions between organisms in an ecosystem and also understood the flow of energy and recycling of nutrients. Some students omitted to discuss the recycling of nutrients or neglected to explain how nutrients were recycled with reference to the particular example given in the exam. Some students did not appear to have experience in reading food webs. They read the arrows in the wrong direction and did not understand the role of decomposers.

Students handled Question 14 quite successfully. Many students could mark the economically active age groups on the population pyramid in answer to Question 14(a). Teachers are advised to explicitly teach the difference between social and economic issues. For many students, the social issue asked for in Question 14(b) was missed entirely. Generally an economic response was given or just 'ageing population' without any recognition of the social aspect of the question.

The focus of Question 15 was the components of population change and overall this question was well done. The majority of students read the graph correctly. Again, careful reading of the questions will provide the best opportunity for individual success, with some students only stating the factor influencing the rate of migration and thus missing out on the mark because an explanation was required as well.

Question 16 was handled well by most students. Generally students were able to see the trend of decrease and then increase, but those who were not successful tended to overgeneralise and ignored the increase from 2000 onwards. Most students were able to pick the increase in total fertility rate (TFR) in conjunction with an increase in migrants of child-bearing age. Indeed many gave more than one scenario in terms of migrant group cohorts that could increase or decrease the TFR.

Responses to Question 17 indicated that the push-and-pull factors in migration were well understood. Most students used examples from the information provided as instructed. Some students had two or three paragraphs in their answer, which indicated a desire to be thorough. The mark scheme is an indication of the extent of the response that is required.

There were some excellent diagrams of the Demographic Transition Model, which were well-labelled and accurately drawn, in response to Question 18(a), but the majority of students did not score well. Some students did not respond to the question and a large number did not label the y-axis.

GIS techniques were not well understood and very few students addressed the locational aspect of Question 19(a). Question 19(b) was answered most commonly with a prediction about future fires; very few students referred to the topography layer.

Questions 20 and 21 on wind energy were handled well by students, who were able to demonstrate their understanding of renewable resources. The everlasting nature of wind energy was mentioned by just about all students and the vast majority responded that resources were needed to produce panels or turbines, thus producing an ecological footprint for wind energy. Generally students responded to Question 20(c) that using fossil fuels as an energy source created more dangerous CO₂ waste than wind energy.

In approximately 85% of papers, students were rewarded for responding with 'exporting energy via the subsea cable' to Question 21. Very few students looked at the idea of proximity to the United Kingdom, but only one reason was needed to gain the mark for this question.

Question 22 was an extended-response question on the comparison of locations for wind farms. This question was done well and many students scored highly. The best answers were systematic, logically structured, addressed atmospheric, human, and physical factors, and expressed ideas clearly. The most common mistakes were either to omit a comparison of water depth at each site or to assume that both sites had the same water depth.

The factors affecting evaporation were not well known and therefore Question 24 was not well done. Very few students understood the need for standardising data collection from evaporimeters. Most commonly students were able to identify temperature as a factor affecting evaporation, but few got beyond this.

The final two questions in the exam related to water issues. Question 25(a) produced some lengthy and sometimes incorrect responses to the idea of comparative rainfall variability. Conversely some very succinct and accurate responses were also given. A comment about the annual rainfall variability and some evidence was sufficient to earn the mark. Snow was a very popular and correct response to Question 25(b). The better responses to Question 25(c) referred to saturation and run-off, and a handful of responses correctly referred to surplus in the soil-moisture budget. Responses that just quoted from the news item at the top of the page missed the point and also the mark.

The final extended response question on the transboundary management of water resources gave students an opportunity to show their understanding of the issues that are faced in the management of freshwater supplies and to draw on at least one case study. The students who could do this produced excellent answers. However, there were many blank pages and off-the-topic responses. Most students interpreted 'transboundary' as international boundaries (e.g. the Nile, the Aral Sea, Israel, the Mekong River), but others saw this as the chance to refer to the Murray–Darling Basin and, in a minority of cases, to refer to the odd local example or even to the beneficial nature of the transboundary of the Snowy River catchment area.

Some students had little understanding of the concept of 'transboundary'. The better responses tackled the idea of 'more difficult' to invoke some level of comparison in two catchments. In the poorer responses (usually about the Murray–Darling Basin), a lot of material was repeated and thus scored poorly. Many students knew their case studies very well, but were not able to explain the difficulty of managing transboundary catchments. Many focused on giving facts rather than structuring answers that addressed the question.

Finally, there was little evidence of students running out of time and having to resort to notes or dot points for extended responses.

OPERATIONAL ADVICE

- Teachers should ensure that the correct assessment design criteria are addressed for each assessment type.
- Teachers are encouraged to be familiar with and use the most recent forms available on the SACE Board website
- Teachers should ensure that the results recorded on assessment results sheets match those submitted to the SACE Board in the moderation materials.
- Teachers are reminded that the overall grade for an assessment type should match the selection of performance standards.
- It is easier for moderators to confirm a school's assessment decisions where associated mark schemes, rubrics, and/or specific features of the assessment design criteria are included with task sheets for each assessment task.
- Teachers are encouraged to self-moderate or work with a colleague or faculty to moderate their marking.
- Assessment cover sheets for the fieldwork and inquiry should include the option topic to assist with moderation.
- Appendices containing completed surveys, etc., should not be submitted for moderation.
- Folio tasks should allow students to provide evidence of their learning in relation to the same assessment design criteria that are outlined in the learning and assessment plan.
- When determining the grade for the folio, teachers are reminded to refer to it as a whole body of evidence.
- Avoid submitting more than 4–6 folio assessments as required in the subject outline.

Geography
Chief Assessor