



General Certificate of Education

Applied Science

8771/8773/8776/8779

**SC16 Ecology, Conservation and
Recycling**

Report on the Examination

2007 examination - June series

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Set and published by the Assessment and Qualifications Alliance.

General Comments – June 2007 Series

The A2 Units – SC07, SC09, SC10, SC12, SC13, SC15 and SC16

The entry for the specification has continued to grow and centres have continued to successfully guide candidates to achieve, this first cohort for the A2 award has generated much high quality work from centres. Due credit should be given to both teachers and students in making every effort to meet the requirements of a new specification, producing portfolios, in many areas, of a commendable standard of content, approach and presentation. Centre administration overall has been good. However a number of centres were very late in sending initial documentation to moderators and in sending off requested samples. A number of centres failed to fully complete candidate record forms, missing candidate names and numbers makes recognition of work very difficult and leads to frustration and the potential for mis-allocation of marks.

Unit 16 – Ecology, Conservation and Recycling

This has been a popular unit and it does require candidates to make considerable efforts since it contains a wide range of material.

Many centres made use of field work led by a study centre; others preferred to use work led by the class teacher. Work of a range of levels of skill was seen. In the ecological survey, many highly achieving candidates had visited an appropriate environment, maybe a sea-shore or stream, and had used random quadrats or a line transect in or across a suitable area to sample the population of organisms. Organisms were counted or percentage cover estimated. The physical features of the environment were measured: light/wind speed/temperatures/water depth/speed of flow etc. All this data was tabulated and displayed so that comparisons of distributions could be made and possible links established. The use of capture/recapture techniques rarely featured (candidates making use of this technique applied to sea-lettuce demonstrated some lack of appreciation of the use of the technique).

Many candidates worked out exemplar food chains and webs, but, again, there was a range of skills shown, with some working out a very large number of food chains – making up a large part of the portfolio - and others producing wall sized food webs with too many organisms included. In the context of the unit centre assessors/tutors need to guide candidates towards what it is appropriate to produce in relation to its position in the unit as a whole.

Some candidates, having collected a significant amount of data on an environment, did very little with the results.

Many candidates made good choices of areas to study for the conservation activity such as sand dune erosion by site visitors, conservation of river quality by re-instating natural banks, recovery of meadows by organic farming or actions taken after oil tanker disasters. Some candidates made assessment more difficult by addressing general issues such as “global warming” or destruction of rain forests. This is again an example where more appropriate guidance towards an area of study that allows candidates access to the assessment criteria is required. Global warming and the Amazon rain forests are very important but they are not the best choices for candidates to study if they are to match the requirements of the unit. Teachers should ask themselves – and get candidates to ask themselves, “What does this unit ask me to do?”, “Will the area I am proposing to study allow me to show that I can match the assessment requirements – or can I structure my work in such a way that it does?” If the answer to this question is, “No”, or, “It might be a bit difficult”, then another area of study which more closely matches the requirements should be chosen.

Candidates overall made good efforts with the investigation into the recycling of materials, giving general details for their local authority, often linked to government targets, followed by research into the recycling of a chosen material, frequently glass, paper or aluminium. Very few candidates seemed to choose oil. Many candidates gave some ideas of the scale of the recycling undertaken and the background to processing of waste. Not many gave much detail about the science behind the recycling process.

Many candidates said, in passing, how much they had enjoyed the work and how much they had learned about their local area in this part of the unit. Whilst this is not an assessment point, if candidates enjoy what they are learning about, that is very pleasing.

Mark Ranges and Award of Grades

Grade boundaries and cumulative percentage grades are available on the [Results statistics](#) page of the AQA Website.