



**General Certificate of Secondary Education
June 2011**

Applied Science (Double Award) APSC1

Science in the Workplace

Unit 1

***Report on the
Examination***

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Activities

There was evidence of good vocational contexts in candidates' work. Most centres demonstrated full coverage of the specification and had given candidates opportunities to access the full range of assessment criteria. School visits, visiting speakers and good use of work experience placements were seen in candidates' work from many centres. The majority of candidates had been given opportunities to use a wide range of resources. Some centres had used templates for both strands of this unit. The use of templates is permitted but centres must be careful to ensure that the templates enable candidates to include the detail necessary, especially to achieve the higher assessment criteria. There were a small number of centres whose templates did not include all the necessary information which meant that all their candidates could not achieve all the criteria. A few centres had considerably over-marked the very basic information that some candidates had included in a template table, indicating that marks were given for filling in the boxes rather than what candidates had actually written. In both strands, there was less evidence of unedited downloaded material being included and/or given credit than in previous series.

Assessment

The assessment of this unit was broadly in line with the AQA standard for most centres. However, generosity of marking is still being seen in some centres, especially at the higher end of the marking grid.

Assessor annotation on the work seen was generally of a higher standard this series, enabling the moderator to see what credit had been given and where it had been given for most candidates.

For some centres, there was clear evidence of internal standardisation taking place within the centre. However, there are still centres that must ensure that all their assessors are marking candidates' work to the same standard before submitting work for moderation. Internal standardisation can often highlight problems that can then be resolved before any marks are submitted. There is a risk of all candidates having their marks regressed if the moderator does not agree with the marks given by one of the assessors in a centre.

Presentation of work to the moderator

Candidates' work was punched and tagged together, as requested, by most centres. There was less evidence of the staples, plastic wallets, bulky folders or loose pages that can seriously hinder the moderation process. Moderation got off to a good start as a result of the prompt sending of marks and requested samples by most centres. A large number of centres sent in marks before the deadline and this was much appreciated by the moderation team. A small number of centres risked their candidates not receiving their results on time due to the centres' delayed turn-around of the requested sample.

The majority of centres completed the Centre Declaration Sheets and Candidate Record Forms correctly. A few centres had candidate numbers or the required signatures missing and need to be reminded of the importance of accurate administration.

Strand A: The Use of Science in the Workplace

As in the previous series, there was some excellent work seen from some centres, including a good range of organisations that use science and many candidates achieving high marks that were well deserved. It was clear that these centres had followed the guidance given in the Specification and the Teachers' Guide very carefully.

Most centres understood that a 'range of organisations' meant three and that the grading criteria for stages 1 and 2 had to be achieved for all three organisations.

Candidates were generally encouraged to describe the locations of the organisations by including a map and address to ensure that the organisation could be located using their information. However, some candidates were incorrectly given credit for giving the name of the town or city or making a simple statement such as 'in the middle of town'. At stage 3, generic statements such as 'good transport links' or 'on the outskirts of town' would not achieve 3A2 without considerable justification.

Most centres had followed the guidance on distinguishing between the list of products or services in 1A2 and the descriptions required for 2A3. Often the centres that had incorrectly awarded 2A3 for nothing more than a list were those who had given the candidates templates to fill in. The templates either did not distinguish between the list and description or did not have enough space for candidates to write a detailed description.

The number of jobs required for 2A4 and 2A5 should be appropriate to the size and type of organisation, but should be approximately three. As in the previous series, a few centres were still awarding these marks for very little information on one job per organisation. Some centres also need reminding that 2A4 should include how the jobs use science as well as the qualifications of the employees.

At stage 3, the in-depth study should be distinguishable from the other two in the range by the amount of detail included. Candidates should be encouraged to produce one report that is more thoroughly researched than the other two. Several centres had awarded stage 3 credit for very minimal information in all criteria. A small number of centres are still forgetting that there is only one mark available for all three criteria 3A1, 3A2 and 3A3 together. For 3A4 the information given should be more detailed than that awarded 2A4. It could, for example, include explanations of why certain qualifications and skills are required for the jobs. For 3A5, there should be a significant amount of research completed on the effect of the organisation on the environment. Simple statements such as 'they are reducing pollution' must be broken down into several different aspects and explained thoroughly. For example, details on the organisations policies or attitudes towards waste, recycling, transport pollution, energy and noise pollution could all be considered.

Strand B: Working Safely in Science

Generally there was good coverage of all three aspects of the specification (hazards and risk, fire prevention and first aid) for the school laboratory at stage 1. However, some centres need to ensure that candidates are encouraged to include risk assessment in the information on hazards and, in some centres, coverage of all areas was too brief and/or too general and did not specifically discuss the school science laboratory. An example of this might be where general first aid was briefly described but the specific types of injuries and first aid required in the school laboratory were not discussed.

At stage 2, the same areas of the specification should be covered again for a named workplace. Some candidates were not encouraged to name their workplace and just wrote about general workplace safety or government legislation e.g. COSHH regulations. This is not appropriate as it does not allow them to make the necessary comparison at stage 3. Some candidates had written about several organisations which is unnecessary. Candidates could be encouraged to use one of the organisations covered in strand A as their scientific workplace in strand B. Some candidates were using their work experience organisation or an organisation they had visited as a workplace in both strands and this was very pleasing to see. Centres should encourage candidates to do this, if it is an appropriate workplace, as candidates are able to write from their own experiences, and are not tempted to 'cut and paste' information from the internet.

A comparison of the scientific workplace with the school laboratory is required to achieve stage 3. The comparison alone is not enough to cover both stage 2 and stage 3 marks. There were still a number of centres whose candidates had simply completed a brief comparison, often in a template, with no information on the workplace for stage 2. In this instance, any stage 3 marks achieved can be used to compensate for a lack of marks at stage 2 up to a maximum of 2 marks.

Strand C: Research and Communication

Strand C was generally assessed in line with AQA standards. Candidates who had done very little work being awarded one mark, those using several sources of information being awarded two, and those who had used and identified many sources and whose work was clear and logically presented being awarded three marks.

Some centres are being too lenient in giving three marks where the candidate had not identified their sources (either throughout the work or in a resource list/bibliography). There were also examples of centres giving every candidate three marks where most of the work seen was not clear and logically presented and, even if a resource list was present, there was very little evidence of any research taking place.

A few centres were harsh, giving no marks or only one mark where it appeared that research had taken place and several sources had been used.

Mark Ranges and Award of Grades

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

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