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General Certificate of Secondary Education January 2012

Additional Applied Science AASC1

Science in the Workplace

Unit 1



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Additional Applied Science AASC1

Activities

Most schools/colleges demonstrated full coverage of the specification and had given students opportunities to access the full range of grading criteria. There were some very pleasing vocational contexts seen. There was evidence that many schools/colleges had used school visits, visiting speakers and work experience placements to increase the motivation of students. Students had been given opportunities to use a wide range of resources. In both strands, unedited downloaded material being included and/or given credit was seen only very rarely and it was good to see that schools/colleges were following this guidance.

Assessment

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

Assessor annotation has continued to improve and makes the moderation process straight forward, as it enables the moderator to see what credit had been given and where it had been given for most students.

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

Presentation of work to the moderator

Students' work was punched and tagged together, as requested, by most schools/colleges. A very small number of schools/colleges are still using staples, plastic wallets, bulky folders or loose pages. This can seriously hinder the moderation process. Moderation got off to a good start, as in the previous series, as a result of the prompt sending of marks and requested samples by most schools/colleges. A large number of schools/colleges sent in marks before the deadline and this was much appreciated by the moderation team. A small number of schools/colleges risked their students not receiving their results on time due to the schools/colleges' delayed turn-around of the requested sample.

The majority of schools/colleges completed the Centre Declaration Sheets and Student Record Forms correctly. A few schools/colleges had student 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

There was some excellent work seen from many schools/colleges, including a good range of organisations that use science, and many students achieving high marks that were well deserved. It was clear that these schools/colleges had followed the guidance given in the Specification and the Teacher's Guide very carefully.

Almost all schools/colleges 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. Students 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. Simple statements such as 'in the middle of town' were still given credit incorrectly by a minority of schools/colleges. At stage 3, generic statements such as 'good transport links' or 'on the outskirts of town' would not achieve 3A2 without considerable justification.

Most schools/colleges had followed the guidance on distinguishing between the list of products or services in 1A2 and the descriptions required for 2A3. Once again the schools/colleges that had incorrectly awarded 2A3 for nothing more than a list were those who had given the students templates to fill in. The templates either did not distinguish between the list and description or did not have enough space for students 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 previous series, a small number of schools/colleges were still awarding these marks for very little information on one job per organisation. Some schools/colleges also need reminding that 2A4 should include how the jobs use science as well as the qualifications.

At stage 3, the in-depth study should be distinguishable from the other two in the range by the amount of detail included. Students should be encouraged to produce one report that is more thoroughly researched than the other two. 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, 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. A small number of schools/colleges need to be reminded that students should include risk assessment in the information on hazards, and that all three aspects should 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. Students could be encouraged to use one of the organisations covered in strand A as their scientific workplace in strand B. There was evidence that some students 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. Schools/colleges should encourage students to do this, if it is an appropriate workplace, as students 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 small number of schools/colleges whose students had simply completed a brief comparison, often in a template, with very little 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.

Strand C: Research and Communication

Strand C was generally assessed in line with AQA standards. Students who had done very little work were correctly awarded one mark, those using several sources of information were awarded two, and those who had used and identified many sources and whose work was clear and logically presented were awarded three marks. A few schools/colleges were too lenient in giving three marks where the student had not identified their sources (either throughout the work or in a resource list/bibliography). There were also examples of schools/colleges giving every student 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 schools/colleges 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 <u>Results statistics</u> page of the AQA Website.

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