



**General Certificate of Secondary Education
June 2011**

Applied Science (Double Award) APSC3

Developing Scientific Skills

Unit 3

***Report on the
Examination***

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Applied Science (Double Award)
APSC3**General Administration**

Portfolios were generally well presented, the best being in the order of the candidate record form, tagged in the top left hand corner, all orientated the same way with work separated so that it was easy to navigate the portfolio. There were still some centres sending portfolios that were upside down and back to front and stapled so that it was impossible to see work without having to rip pages apart. There were also a few centres that did not attach work together at all or used paper clips. This meant that it was very easy for the work of different candidates to become mixed up. A number of centres put a lot of work into one parcel rather than splitting them up and sending the work in several batches, in some cases the parcel bags had split open and there was a risk of work being lost or damaged in the post. There were still a number of incidences where candidate numbers were missing or incorrect although there were far fewer candidate record forms sent this year without a candidate signature. It is however still vital that the teacher signs the form.

The best portfolios also had a tick sheet attached to the work but in addition were very clearly annotated next to where the evidence could be found which made it very easy to navigate the portfolios.

A number of centres had not applied the incomplete stage rule correctly. If a stage is incomplete then the maximum mark that can be awarded is the top mark for the incomplete stage. Centres can compensate two bullet points from the stage above. In APSC3 strand B it is possible to award a mark of 10 where a line graph is inappropriate. Some centres had “counted ticks” and therefore awarded marks well above the true mark.

Assessment

A nice range of tasks were seen and the best examples saw the vocational setting being given right at the start so that candidates could apply their knowledge all the way through. There were some errors in applying penalties. A penalty must be applied if an entire piece of work is missing for example chemical analysis techniques and not an individual strand of a piece. For each piece missing, the candidate loses one third of their total mark.

Presentation of work to the moderator

The best portfolios had all of the pieces of work in the order set out on the candidate record form and were punched and tagged in the top left hand corner and the best marks had been identified on the candidate record form which was particularly helpful if there were several pieces of work on the same mark. Some centres had unfortunately not orientated work correctly and had stapled work together on the opposite corner which made it very difficult to moderate without having to tear work open.

There are still a number of centres who submitted six pieces of work (only three, one for each area are required). Some had done these well yet others would be better using the time to complete three pieces well. If the marks had not been used however, there was no need to include the extra work.

There are also still a number of centres who are including class work that builds up to a piece of work. Unless it is creditworthy as part of the portfolio work, this should not be included.

Further support

Teachers are encouraged to make full use of the guidance available. A Teachers Guide is available which gives more detailed information on portfolio marking and there is also a document available called “Coursework information for centres”. This details general information about entries and notes on each of the units including appropriate tasks, administrative procedures and the role of the portfolio advisor.

These are available on the [AQA Website](#) by choosing support materials. Centres can also access the Ask AQA from the website.

Strand A: Planning and Following Instructions

One of the main errors in strand A was the awarding of stage 2 and 3 marks for risk assessments that were neither complete nor comprehensive. Even if a candidate has completed the risk assessment independently, if hazards are missing then only stage 1 can be awarded. Some centres had awarded stage 2 and 3 for one or two word descriptions for example “burns” or “cut you”. This level of detail is not sufficient for stage 2 and 3 marks. There was a high incidence of chemicals being described incorrectly for example sodium hydroxide was often described as “corrosive”. It is far more likely that the sodium hydroxide used at this level would be “irritant”. Very few centres incorrectly awarded 3A2 and 3A3 for simplistic tasks this series.

Strand B: Obtaining Evidence by Experimenting

In strand B some centres had still awarded 2B3 and 3B3 for bar charts. Since these do not have a line of best fit these are not credit worthy. If a graph is awarded 2B3 or 3B3 it must also have a suitable and correct scale, axis labels and units. There still seemed to be a significant number of centres who were providing tables for candidates at all levels and awarding full marks. If a table is provided then, 2B3, 3B1 and 3B2 cannot be awarded. A number of centres awarded two marks for 3B2 without the accompanying explanation from the candidate as to why they needed to repeat the experiment. A repeat is classed as doing the same experiment several times over for example performing the same titration two or three times and not doing a titration with three different solutions.

Strand C: Analysing and Considering Evidence

In strand C, a significant number of centres awarded 2C1 without any reference to the data collected during the experiment. 3C1 was often awarded incorrectly since this requires a quantitative relationship to be identified and must also use the data from the experiment to prove the pattern. It was good to see that most centres realised that if calculations could not be carried out then the maximum mark that could be awarded was 4, however there were a small number who ignored the need for a concluding comment for 1C2 and awarded stage 2 marks for calculations alone.

Strand D: Evaluating Evidence

Strand D was generally marked accurately at stage 1 and 2 although occasionally centres were awarding 2D2 for improvements that had not been justified. Quite a large number of centres awarded stage 3 marks for just a few sentences. The level of detail must reflect that stage 3 is aimed at the highest achieving candidates. The evaluation must have a detailed analysis of the strengths and weaknesses and the improvements suggested must also be detailed and be fully justified.

Strand E: Vocational Application

A large number of centres seen this series did not fully understand this strand. Often, candidates had been encouraged to describe applications of the techniques for example where titration would be used and not an application of *their* experiment. For example if candidates had looked at the acid levels in fruit juices using titration, then they should look at the type of companies who would also test fruit juices. Only at stage 3 would they discuss other companies who would carry out similar investigations and use the technique. At both stage 2 and 3, the workplaces suggested must be specifically named and a description given rather than a list of addresses.

The best portfolios had each piece of work set in a vocational context right from the start which helped candidates to apply their knowledge in strand E and strand C.

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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