



## Entry, aggregation and certification rules for the new GCSE Sciences

### Guidance for AQA centres

The details of the rules for the new GCSE Sciences have been confirmed by the regulatory authorities, including QCA. This document is designed to give guidance to centres on the rules as they apply to AQA specifications. The guidance was updated in February 2008 to reflect changes agreed as a result of comments from centres.

- 1 All the new AQA GCSE Science specifications are unitised. This means a separate entry must be made for each unit that a candidate is taking. AQA issues the result for each unit as a UMS (Uniform Mark Scale) score which can be related to a unit grade (A\* to G). AQA's unit entry codes all begin with three or more letters eg BLY1F. There is a fee for each unit entry.
- 2 In order to obtain certification, a subject award entry must be made. AQA's subject award entry codes have four digits eg 4462. Entry for a subject award means that the AQA computer adds together the UMS scores for the relevant units, and relates the total UMS score to a subject grade (A\* to G). This process is called aggregation. The subject grade appears on the candidate's GCSE certificate. There is no fee for a subject award entry.
- 3 In unitised specifications, candidates can take different units in different exam series. Since the exam papers for a unit could vary in difficulty between series, it would be unfair to use raw marks in aggregation. The use of the UMS enables the same score to be given for equivalent performances in different series. The relationship between raw marks and UMS score is decided for each unit during the awarding procedures.
- 4 An explanation of the UMS and details of the relationship between UMS score and grade are given in the Awarding and Reporting section of each specification.

#### Example 1

Amy takes BLY1F in January of Y10, followed by CHY1F, PHY1F and SCYC (the centre – assessed unit) in June of Y10. For June she is also entered for the subject award, GCSE Science B (4462). Her results are:

Entry code	UMS score	Grade
BLY1F	53	D
CHY1F	58	D
PHY1F	55	D
SCYC	63	C
4462	<hr/> 229	D

Her final grade for GCSE Science B (D) appears on her GCSE certificate for the June series.

- 5 For the new GCSE Sciences, if a subject award entry is made for a candidate, the candidate is not allowed to decline certification of the award. This means that any final grade achieved by a candidate appears on their GCSE certificate for that series. (Declining has been a feature of other unitised qualifications such as GCE. It effectively deletes from the AQA computer the record of the candidate's aggregated mark for the subject award so that the final grade does not appear on their certificate. The facility to decline was removed from GCE from January 2008.)
- 6 Candidates can resit any unit an unlimited number of times. The best UMS score is used in the aggregation of the subject award.
- 7 For units other than the centre-assessed units, the deadline for entries is just after the date on which unit results for the previous relevant series are published. This means that candidates know how well they have performed in a unit and can make an informed judgement about resitting.

### Example 2

Ben takes CHY1H three times as follows:

Exam series	UMS score	Grade
January Y10	82	A
June Y10	85	A
January Y11	76	B

He chooses to re-take CHY1H in June of Y10 after he receives his result of 82 for the January exam. He is not satisfied with 85, thinking he could do even better, so resits again but does less well. He is entered for GCSE Science B (4462) in January of Y11. His UMS score of 85 from June of Y10 is used in the aggregation for his final grade.

- 8 Unit results can be reused towards a further subject award of the same title. A candidate who wants to improve their grade for a subject award can retake one or more of the appropriate units and re-enter the subject award to obtain a further final grade. The best UMS score for each unit is used so, if they do worse when they resit, their further final grade is the same as the original grade.

### Example 3

Amy (see example 1) thinks she can get a better final grade for GCSE Science B by retaking BLY1F. She retakes BLY1F in January of Y11, and at the same time is re-entered for the subject award GCSE Science B (4462). Her results are:

Entry code	UMS score	Grade
BLY1F (January Y10)	(53)	D
BLY1F (January Y11)	65	C
CHY1F	58	D
PHY1F	55	D
SCYC	63	C
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4462 (June Y10)	(229)	D
4462 (January Y11)	241	C

Her second final grade for GCSE Science B (grade C) appears on her GCSE certificate for the January series.

If Amy wants to, she can also retake any or all of CHY1F, PHY1F and SCYC.

If Amy does worse when she resits BLY1F eg gets a UMS score of 49, her better mark of 53 from January of Y10 is again used in the aggregation and she gets the same final grade as originally (grade D).

- 9 Some units are common between GCSE titles. Examples of titles are Science, Additional Science, Biology, .... Results of common units which have been used for a subject award of one GCSE title cannot be used towards a subject award of a different title. If a candidate wants two subject awards which have a common unit, they have to sit the common unit at least twice. Then one unit result is used for one subject award, and another unit result for the second award.
- 10 If the subject awards are entered in different series, the best result is used for the first award claimed. The next best result is used for the second award claimed.

#### Example 4

Farhat takes Science B (4462) with the following results.

Entry code	UMS score	Grade
BLY1H (January Y10)	(78)	B
BLY1H (January Y11)	83	A
CHY1H	73	B
PHY1H	67	C
SCYC	75	B
4462 (January Y11)	298	B

She decides to take Biology in Y11. BLY1H is a common unit between Science B and Biology. She takes BLY2H, BLY3H and BLYC in June of Y11 and is entered for Biology (4411).

She does not have to take BLY1H because she has a result of 78 from January of Y10 which has not been used for a subject award. Her result of 83 for BLY1H (January Y11) cannot be used because it has contributed to her Science B award. However, she could take BLY1H for a third time in June of Y11 in the hope of achieving a better UMS score than 78. Then her better score from January of Y10 and June of Y11 would be used towards Biology.

- 11 Some combinations of subject awards cannot be entered in the same series. These are:
- Science A and Science B
  - Additional Applied Science and Applied Science (Double Award)
- 12 All other combinations of awards can be entered in the same series. In particular, the following combinations, which have common units, can be entered in the same series:

Science A (or B) and Biology	Additional Science and Biology
Science A (or B) and Chemistry	Additional Science and Chemistry
Science A (or B) and Physics	Additional Science and Physics

13 Where a candidate has two or more results for a common unit, centres cannot choose which result is used towards a subject award. AQA uses rules to decide how the unit results are aggregated to work out subject grades. Where there is more than one way of aggregating scores, AQA optimises the total UMS score for Science (or Additional Science).

- If a candidate enters Science A and a separate science in the same series, and has taken both the written paper and the objective tests, the marks for the objective tests will be used for Science A. The mark for the written paper is used for the separate science.
- If a candidate enters Science B and a separate science in the same series, and has taken both the written paper and the objective tests, the mark for the written paper will be used for Science B. The marks for the objective tests are used for the separate science.
- If a candidate enters Science and a separate science in the same series, and has taken the written paper for the common unit more than once (or the objective tests for the common units more than once), the best mark(s) are used for the Science subject award, and the next best mark(s) for the separate science.
- If a candidate enters Additional Science and a separate science in the same series, the best mark for the common unit is used for Additional Science.

#### Example 5

Helen is taking Science A (4461) and Physics (4451). She takes the written paper for Physics 1 as well as the objective tests. Science A is aggregated using her objective test scores, and her written paper score is used for Physics. The score for the written paper cannot be used for Science A, leaving the objective tests to be used for Physics, even if that would mean her grade for Physics would be better.

Entry code	UMS score	Grade
BLY1AH (January Y10)	38	B
BLY1BH (June Y10)	41	A
CHY1AH (June Y10)	38	B
CHY1BH (June Y10)	39	B
PHY1AH (January Y10)	44	A
PHY1BH (June Y10)	45	A*
PHY1H (June Y10)	82	A
PHY2H (January Y11)	79	B
PHY3H (June Y11)	72	B
SCYC (June Y11)	86	A
PHYC (June Y11)	80	A
4462 (June Y11)	331	A
4451 (June Y11)	313	B

### Example 6

Greg obtains the following unit results and subject awards in Science B (4462) and Chemistry (4421).

Entry code	UMS score	Grade
BLY1H (January Y10)	68	C
CHY1H (June Y10)	77	B
PHY1H (June Y10)	74	B
CHY1H (January Y11)	82	A
CHY2H (January Y11)	72	B
CHY3H (June Y11)	66	C
SCYC (June Y11)	76	B
CHYC (June Y11)	73	B
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4462 (June Y11)	300	B
4421 (June Y11)	288	B

He takes the common unit CHY1H twice. His better score of 82 from January of Y11 is used for Science B, and his other score of 77 from June of Y10 is used for Chemistry.

- Deadlines for subject award entries are the same as other GCSE subjects in a given exam series. Providing some of the units for a title are available in the series, subject awards for that title can be entered in the series. So, for example, Science A and Physics are available in November, but Science B is not.
- The centre-assessed units for Science A, Science B, Additional Science, Biology, Chemistry and Physics can be entered in the June series only. The entry deadline is the same as the deadline for subject award entries. For Additional Applied Science and Applied Science (Double Award), the centre-assessed units (portfolio units) are available twice a year, in January and June.
- QCA requires that the subject context for any centre assessment is appropriate to the subject award to which it contributes. For AQA specifications with Investigative Skills Assignments (ISAs), this means the context of the ISA should be the subject content of one of the externally-assessed units of the subject award.

For example:

- for GCSE Science A, ISAs in the contexts of Biology 1A, Biology 1B, Chemistry 1A, Chemistry 1B, Physics 1A and Physics 1B are all acceptable, but an ISA in the context of Physics 2 is not
- for GCSE Chemistry, ISAs in the contexts of Chemistry 1, Chemistry 2 and Chemistry 3 are all acceptable but Biology 1 is not.

- 17 QCA has allowed that, where a context is common to two subject awards, the centre-assessed mark can (but does not have to) contribute to both subject awards. This means that, wherever two awards have a common unit, there is the possibility of an ISA mark counting towards both subject awards.

For example, Science and Physics have a common unit, Physics 1. An ISA in the context of Physics 1 can contribute to both Science and Physics, but not Additional Science, Biology or Chemistry. The centre-assessed unit of Science is SCYC; the centre-assessed unit of Physics is PHYC.

If a candidate with an ISA mark which has counted towards an SCYC result wants to use the same ISA mark for PHYC in a later exam series:

- the candidate is entered for PHYC
- the Centre Mark Form is annotated to indicate the series and the entry code, SCYC, for the earlier result being carried forward as a PHYC result. The earlier result will be input to the AQA computer under the code PHYC.

If a candidate wants to use an ISA mark for SCYC and PHYC in the same series:

- the candidate is entered for both centre-assessed units (SCYC and PHYC)
- the marks for SCYC and PHYC (they will be the same) are entered by the teacher on the Centre Mark Forms.

Note that:

- an entry fee is payable for each of SCYC and PHYC, and the normal entry date for centre-assessed units applies
- a centre-assessed unit mark is a mark for an ISA plus a mark for the Practical Skills Assessment (PSA).

- 18 Where it is not known at the outset which subject awards a candidate is going to enter (eg they might take GCSE Biology, Chemistry and Physics, or GCSE Science B and Additional Science), it is best practice to delay subject award entries, for example, until February of Y11 when entries for June of Y11 have to be made. More unit results are known and a better judgement about the best course of action can be made. It also ensures that unit results are not used up unnecessarily and retains flexibility.

The advice about delaying entry also applies to entries for centre-assessed units with ISAs. This is because, although marks can be transferred between centre-assessed units (providing the context of the ISA is appropriate), there is an additional entry fee cost.

Sidelining indicates where changes have been made to the text because the rules have changed. Where the text has been amended for greater clarity but the information hasn't changed, it is not sidelined.