GCSE Double Award Science Awarding Summer 2020

Technical Information
CCEA Awarding Organisation

Introduction

The centre assessment grades for Double Award Science is a double grade for the entire qualification for each individual students and not a grade at unit or discipline level.

You will find more information about the centre assessment grades and rank ordering of students on pages 4-9 of the CCEA awarding organisation *GCSE and GCE Awarding 2020 Technical Information* document, with specific mention of Double Award qualifications on page 9. This document was sent to centres on 30th April 2020. A separate document was also issued on this date, CCEA awarding organisation *GCSE and GCE Awarding Technical Information – Supplementary Questions and Answers.* Question 22, on page 5 of the supplementary question and answers includes the following question and answer:

For each GCSE Double Award Science student, how should the Head of Science make decisions about centre assessment grades and rank orders when there are three discrete subject teachers combining to give two grades?

CCEA appreciates that Double Award Science is made up of three different subject areas. There is no set method for making holistic judgements about the student's likely performance at overall qualification level. However, we would suggest that teachers should consider the student performance in their subject area first. It may be useful to decide on a notional centre assessment grade and rank order at subject level and then come together as a department to discuss. Each student should be discussed individually using all the evidence available. It may also be useful to consider the centre's percentage attainment at each grade from previous years before creating the holistic judgements and to revisit them again towards the end of the process to refine judgements.

The purpose of this document is to further exemplify how centres might approach the process of determining centre assessment grades and rank ordering students who were due to cash-in for GCSE Double Award Science in Summer 2020 series. Centre assessment grades should not be higher than the maximum grade allowable through the combination of Foundation (FT) and Higher Tier (HT) units selected. This document provides centres with information that will support this requirement. It is not intended that the examples in the document would replace methods individual centres are using to derive at centre assessment grades and rank orders, but rather to exemplify and support teachers with approaches that could be adopted.

Determining the maximum grades achievable by a student through the combination of Foundation and Higher Tier Units selected

The information below is applicable to a normal examination series however, it might be helpful for teachers to consider the UMS connected with the units that have been pupils entered for, provide principles for discussion and inform centres of the maximum grades for various tiering combinations.

Each unit has a maximum uniform mark achievable and that uniform mark will depend on the tier of entry. Foundation Tier units will have a lower maximum uniform mark. Using the student's tier of entry for each individual unit, add the maximum uniform mark achievable for each unit together. The combined total UMS mark can be mapped to the qualification uniform mark grade boundaries to determine the maximum allowable grade combination.

The following sections indicate uniform mark boundaries and maximum uniform marks at unit level:

Unit 1 results

For each written unit (B1, C1 and P1), there are 60 raw marks available at Foundation Tier and 70 at Higher Tier.

*The **maximum** uniform mark for each unit is 66. The **minimum** uniform mark required for each grade is as follows:*

A	B	C*	C	D	E	F	G
53	49	45	40	33	27	20	14

Candidates entering for Foundation Tier can achieve a maximum uniform mark score of 48 in each Unit 1.

Unit 2 results

For each written unit (B2, C2 and P2), there are 70 raw marks available at Foundation Tier and 80 at Higher Tier.

*The **maximum** uniform mark for each unit is 84. The **minimum** uniform mark required for each grade is as follows:*

A	B	C*	C	D	E	F	G
68	62	57	51	42	34	26	17

Candidates entering for Foundation Tier can achieve a maximum uniform mark score of 61 in each Unit 2.

Unit 7 – Practical Skills

For practical and written Unit 7, there are 45 raw marks available for Practical Booklet A (15 marks for each Biology, Chemistry and Physics) and 105 raw marks available for Practical Booklet B (35 marks for each Biology, Chemistry and Physics) for both Foundation and Higher Tiers.

*The **maximum** uniform mark for Unit 7 is 150. The **minimum** uniform mark required for each grade is as follows:*

A	B	C*	C	D	E	F	G
120	110	101	90	75	60	45	30

Candidates entering for Foundation Tier can achieve a maximum uniform mark score of 109 in this unit.

The table below summarises the maximum uniform marks available for each unit which can then be added together to determine the total uniform mark at qualification level which can be used to derive the maximum allowable grade combination. Examples are given below:

Maximum Uniform Mark		
	Foundation Tier (FT)	**Higher Tier (HT)**
Unit 1 (Biology, Chemistry and Physics)	48	66
Unit 2 (Biology, Chemistry and Physics)	61	84
Unit 7 (Booklet A and Booklet B combined for all three disciplines)	109	150

Qualification results

The **maximum** uniform mark for the final award is 600. The **minimum** uniform mark required for each final grade is as follows:

A*A*	A*A	AA	AB	BB	BC*	C*C*	C*C
543	511	480	462	438	420	402	378

CC	CD	DD	DE	EE	EF	FF	FG	GG
360	330	300	270	240	210	180	150	120

**The A*A* and A*A minimum uniform marks are changeable from year-to-year. The marks in this document reflect the minimum uniform mark boundaries from the Summer 2019 series.

Example 1:

If a student is entered for all FT unit 1 and unit 2 examinations in Biology, Chemistry and Physics and is entered for HT in the practical unit 7 (This unit must be taken at the same tier for the whole unit including Booklet A and B), the maximum grades they can achieve is calculated as follows:

- Unit 1 - Max uniform mark in unit 1 FT is 48 (48 x 3 = 144)
- Unit 2 - Max uniform mark in unit 2 FT is 61 (61 x 3 = 183)
- Unit 7 - Max uniform mark in unit 7 HT is 150

This means if the student were to attain maximum uniform marks in all 7 units, their total uniform mark score would be 477/600.

This would allow them to attain a Grade AB as the uniform mark boundary for an AB is 462/600.

Example 2:

A student is entered for FT unit 1 Biology and HT unit 1 Chemistry and Physics. They are also entered for FT unit 2 Biology and HT unit 2 examinations in Chemistry and Physics. The student is entered for FT in the practical unit 7 (This unit must be taken at the same tier for the whole unit including Booklet A and B). The maximum grades they can achieve is calculated as follows:

- Unit 1 - Max uniform mark in unit 1 Biology FT is 48
- Unit 1 - Max uniform mark in unit 1 Chemistry and Physics HT is 66 (66 x 2)
- Unit 2 - Max uniform mark in unit 2 Biology FT is 61
- Unit 2 – Max uniform mark in unit 2 Chemistry and Physics HT is 84 (84 x 2)
- Unit 7 - Max uniform mark in unit 7 FT is 109

This means if the student were to attain maximum uniform marks in all 7 units, their total uniform mark score would be 518/600.

This would allow them to attain a Grade A*A as the uniform mark boundary for an A*A in Summer 2019 was 511/600.

Rank Ordering of candidates

Final grades and ranking should be based on a range of evidence from each discipline teacher, including mock examinations, non-exam assessment, such as practical assessments, homework assignments and any other record of student performance over the course of study.

There are many models that centres can use to rank order their students and this will be very much dependent on the teaching structure of the specification. One possible method that could be used would be to assign Grades A*- G (A*, A, B, C*, C, D, E, F, G and U (for students whose work is below the threshold) to each student. This will initially transfer into double grades. For example, the students who have Grade A will be awarded AA as their centre assessment grade. Each of those students should be ranked ordered with the highest attaining Grade A student being number 1 and ranking down to the lowest attaining student within the grade boundary. Teachers should go down the rank for Grade AA candidates and identify where evidence suggests the first candidate in the rank order is deserving of the lower grade combination i.e. AB. That student is now number 1 in the rank order for AB. Teachers should revisit the BB grade rank order and double check if the top ranked students are placed correctly or should be pulled up into the bottom of the rank order for the higher grade. When coming to their decisions, teachers may find it useful to review this cohort's performance against previous cohorts (eg. % outcomes in previous cohorts at the various grade combinations) and consider ability trends to determine comparable grade outcomes.

The rank order submitted by the school entering the students for the grade boundaries, highlighted in the example above, may look like this:

Grade	Rank Order Number	Name
AA	1	Mary Smith
	2	John Grimes
	3	Peter Davison
AB	1	Bella Wright
	2	Niamh Quinn

This system of rank ordering would need to be done across all the grade boundaries (A*A*, A*A, AA, AB, BB, BC*, C*C*, C*C, CC, CD, DD, DE, EE, EF, FF, FG, GG and U) and should be standardised across science departments for each different science qualification they teach.

Further Support

The Association for Science Education (ASE) has put together some support for this process. Professor Christine Harrison has written initial ASE guidance for teachers that you may find useful. See link below:

https://www.ase.org.uk/news/awarding-of-gcse-gce-grades-2020-initial-ase-guidance

Contact Information

If you have any queries regarding the content of this document, please don't hesitate to contact the Subject Officer with responsibility for the specification:

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