

Supplementary notes regarding credit and grading of the BTEC Level 3 Nationals in Applied Science

To supplement:

1. Rules of combination for Edexcel BTEC Level 3 National qualifications (page 6)
2. Calculation of the qualification grade (page 19)
3. Annexe G - examples of calculation of qualification grade above pass grade (pages 69-73)

Calculation of the overall grade

Edexcel will automatically calculate the qualification grade for learners when the learner unit grades are submitted by a centre. The overall grade is calculated based on the rules of combination for the qualification, in the following way:

1. The mandatory units are selected and the points allocated and credit applied as in the following table
2. The best graded optional units are then selected, within the rules of combination
3. If the amount of credit needed for the qualification is within a higher graded unit, Edexcel will utilise the proportion of the unit to complete the overall grade calculation. Any surplus credits will be listed on the Notification of Performance.

Credit

The qualification is comprised of units with defined credits (this is estimated as being one-tenth of the learning time needed for an average learner) at an ascribed level. The overall qualification is determined by defined rules of combination as prescribed in the specifications. All units are graded as Pass, Merit and Distinction. Using the grading grid, assignments are created by centres to enable learners to be able to meet the criteria at Pass, Merit or Distinction; to gain an overall unit grade of Merit all the Pass criteria and all the Merit criteria must be achieved, and to achieve the overall grade of Distinction all the Pass, Merit and Distinction criteria must be achieved.

To gain the unit learners must achieve, as a minimum, the Pass grade; the Pass grade is in effect the gaining of the credit for the unit, and this contributes to the overall qualification grade. All units must be passes within the rules of combination to achieve the overall qualification. Please note that - unlike the NQF BTEC Firsts and Nationals where there was compensation (learners passing the qualification by compensating for not passing a unit(s) having gained Merit or Distinction grades in another unit(s)) - all units must be passed to achieve the qualification.

The table below shows the number of points scored per credit at the unit level and grade

Unit QCF level	Points per credit		
	Pass	Merit	Distinction
Level 2	5	6	7
Level 3	7	8	9
Level 4	9	10	11

Learners who achieve the correct number of points within the ranges shown in the 'qualification grade' tables below will achieve the qualification Pass, Merit, Distinction or Distinction* grades (or combinations of these grades appropriate to the qualification).

BTEC Level 3 Certificate

Points	Grade	
210-229	Pass	P
230-249	Merit	M
250-259	Distinction	D
260 and above	Distinction*	D*

BTEC Level 3 Subsidiary Diploma

Points	Grade	
410-459	Pass	P
460-499	Merit	M
500-519	Distinction	D
520 and above	Distinction*	D*

BTEC Level 3 Diploma

Points	Grade
830-879	PP
880-919	MP
920-959	MM
960-999	DM
1000-1029	DD
1030-1059	D*D
1060 and above	D*D*

BTEC Level 3 Extended Diploma

Points	Grade
1250-1299	PPP
1300-1339	MPP
1340-1379	MMP
1380-1419	MMM
1420-1459	DMM
1460-1499	DDM
1500-1529	DDD
1530-1559	D*DD
1560-1589	D*D*D
1590 and above	D*D*D*

Important notes regarding Annexe G - examples of calculation of qualification grade above pass grade

Please note that this Annexe within the specification is for illustrative purposes only - the examples given do not apply to the specification for BTEC Level 3 Nationals in Applied Science. See below for additional examples which are based on this specification.

The qualification rules of combination are agreed at accreditation, utilising the agreed units and their associated credits. All of the units within the structure of the BTEC Nationals in Applied Science are at Level 3 with the exception of Unit 6: Using Mathematical Tools in Science, which is at Level 2. Other than this, there are no units available at other Levels within the rules of combination.

Meeting Local Needs

In order to meet local needs, centres are permitted to import a prescribed maximum number - as determined within the rules of combination within the specification - of Level 3 units from other QCF accredited BTEC Level 3 Nationals through Edexcel Online.

Example 1 - Achievement of pass qualification grade

A learner completing a 30-credit Edexcel BTEC Level 3 Certificate **does not** achieve the points required to gain a merit grade.

	Level	Credit	Grade	Grade points	Points per unit = credit x grade
Fundamentals of Science	3	10	Pass	7	$10 \times 7 = 70$
Working in the Science Industry	3	10	Pass	7	$10 \times 7 = 70$
Scientific Practical Techniques	3	10	Merit	8	$10 \times 8 = 80$
Qualification grade totals		30	Pass		220

Example 2 - Achievement of merit qualification grade

A learner completing a 30-credit Edexcel BTEC Level 3 Certificate achieves the points required to gain a merit qualification grade.

	Level	Credit	Grade	Grade points	Points per unit = credit x grade
Fundamentals of Science	3	10	Pass	7	$10 \times 7 = 70$
Working in the Science Industry	3	10	Merit	8	$10 \times 8 = 80$
Scientific Practical Techniques	3	10	Merit	8	$10 \times 8 = 80$
Qualification grade totals		30	Merit		230

Example 3 - Achievement of distinction qualification grade

A learner completing a 60-credit Edexcel BTEC Level 3 Subsidiary Diploma achieves the points required to gain a distinction qualification grade.

	Level	Credit	Grade	Grade points	Points per unit = credit x grade
Fundamentals of Science	3	10	Merit	8	$10 \times 8 = 80$
Working in the Science Industry	3	10	Distinction	9	$10 \times 9 = 90$
Scientific Practical Techniques	3	10	Distinction	9	$10 \times 9 = 90$
Perceptions of Science	3	10	Merit	8	$10 \times 8 = 80$
Mathematical Calculations for Science	3	5	Distinction	9	$5 \times 9 = 45$
Informatics in Science	3	5	Merit	8	$5 \times 8 = 40$
Energy Changes, Sources and Applications	3	10	Merit	8	$10 \times 8 = 80$
Qualification grade totals		60	Distinction		505

Example 4 - Achievement of distinction merit qualification grade

A learner completing a 120-credit Edexcel BTEC Level 3 Diploma achieves the points required to gain a distinction merit qualification grade.

	Level	Credit	Grade	Grade points	Points per unit = credit x grade
Fundamentals of Science	3	10	Merit	8	$10 \times 8 = 80$
Working in the Science Industry	3	10	Distinction	9	$10 \times 9 = 90$
Scientific Investigations	3	10	Distinction	9	$10 \times 9 = 90$
Scientific Practical Techniques	3	10	Merit	8	$10 \times 8 = 80$
Perceptions of Science	3	10	Pass	7	$10 \times 7 = 70$
Using Mathematical Tools in Science	2	5	Distinction	7	$5 \times 7 = 35$
Mathematical Calculations for Science	3	5	Pass	7	$5 \times 7 = 35$
Using Science in the Workplace	3	10	Distinction	9	$10 \times 9 = 90$
Biochemistry and Biochemical Techniques	3	10	Merit	8	$10 \times 8 = 80$
Electrical Circuits and their Industrial Applications	3	10	Distinction	9	$10 \times 9 = 90$
Industrial Applications of Chemical Reactions	3	10	Merit	8	$10 \times 8 = 80$
Geology of Natural Resources	3	10	Pass	7	$10 \times 7 = 70$
Astronomy	3	10	Merit	8	$10 \times 8 = 80$
Qualification grade totals		120	Distinction Merit		970

Example 5 - Achievement of merit merit merit qualification grade

A learner completing a 180-credit Edexcel BTEC Level 3 Extended Diploma achieves the points required to gain a merit merit merit qualification grade.

	Level	Credit	Grade	Grade points	Points per unit = credit x grade
Fundamentals of Science	3	10	Merit	8	$10 \times 8 = 80$
Working in the Science Industry	3	10	Distinction	9	$10 \times 9 = 90$
Scientific Investigations	3	10	Distinction	9	$10 \times 9 = 90$
Scientific Practical Techniques	3	10	Merit	8	$10 \times 8 = 80$
Perceptions of Science	3	10	Pass	7	$10 \times 7 = 70$
Using Mathematical Tools in Science	2	5	Distinction	7	$5 \times 7 = 35$
Mathematical Calculations for Science	3	5	Merit	8	$5 \times 8 = 40$
Using Science in the Workplace	3	10	Pass	7	$10 \times 7 = 70$
Physiology of Human Body Systems	3	10	Pass	7	$10 \times 7 = 70$
Physiology of Human Regulation and Reproduction	3	10	Pass	7	$10 \times 7 = 70$
Biochemistry and Biochemical Techniques	3	10	Merit	8	$10 \times 8 = 80$
Energy Changes, Sources and Applications	3	10	Distinction	9	$10 \times 9 = 90$
Microbiological Techniques	3	10	Merit	8	$10 \times 8 = 80$
Chemistry for Biology Technicians	3	10	Pass	7	$10 \times 7 = 70$
Genetics and Genetic Engineering	3	10	Merit	8	$10 \times 8 = 80$
Medical Physics Techniques	3	10	Pass	7	$10 \times 7 = 70$
Science for Environmental Technicians	3	10	Merit	8	$10 \times 8 = 80$
Chemical Periodicity and its Applications	3	10	Merit	8	$10 \times 8 = 80$
Diseases and Infections	3	10	Merit	8	$10 \times 8 = 80$
Qualification grade totals		180	Merit Merit Merit		1405