

**EXPERT GROUP REPORT**  
**FOR**  
**AWARDS SEEKING ADMISSION TO**  
**THE UCAS TARIFF**

*Advanced Extension Awards*

**February 2004**

<b>CONTENTS</b>	<b>Page</b>
Introduction	1
The Conduct of the Comparability Study	4
Summary and Recommendations	5
Section 1: The Composition of the Expert Group	6
Section 2: Overview of the Award Seeking Admission to the Tariff	7
Section 3: Overview of the Award Subjects and the Benchmark Awards	9
3.1 AEA Mathematics and Edexcel GCE A Level Mathematics	10
3.2 AEA Chemistry and AQA GCE A Level Chemistry	14
3.3 AEA English and OCR GCE A Level English Language, English Language and Literature and English Literature	19
Section 4: The Work of the Expert Group	28
4.1 The Mathematics Group	28
4.2 The Chemistry Group	29
4.3 The English Group	31
Section 5: Allocating UCAS Tariff Points to the AEA	33
Appendix 1 CVs of Expert Group Members	35
Appendix 2 Evidence	43

## **INTRODUCTION**

The UCAS Tariff is a new points score system for entry to HE from September 2002. It replaces the existing A-level points system. The new system was developed to reflect a wider range of qualifications currently offered by applicants to and accepted by Higher Education Institutions. It also embraces substantial reforms to post-16 qualifications implemented from September 2000, popularly known as Curriculum 2000. These reforms completely restructured GCE A/AS levels, replaced the Advanced GNVQ with a suite of VCE awards, and introduced more emphasis on the attainment of Key Skills. For the first time, the points system accommodates Scottish Framework Qualifications.

The Tariff was developed with three specific purposes in mind as follows:

- To report achievement as a points score to Higher Education
- To allow admissions staff to make flexible offers
- To allow broad comparisons to be made between different types of achievement and different volumes of study

The table on the next page shows the points values within the Tariff of the qualifications currently contained within the system:

## UCAS Tariff (Revised April 2003)

CACHE Diploma <sup>1</sup>		BTEC Nationals <sup>2</sup>			GCE/VCE Qualifications				Points	Scottish Qualifications			
Theory	Practical	Award	Certificate	Diploma	GCE AS/ AS VCE	GCE A level/ AVCE	AVCE Double Award	Free standing Maths <sup>3</sup>		Adv Higher	Higher	Int 2	Standard Grade
				DDD					360				
				DDM					320				
				DMM					280				
A			DD	MMM			AA		240				
							AB		220				
B			DM	MMP			BB		200				
							BC		180				
C			MM	MPP			CC		160				
							CD		140				
D	A	D	MP	PPP		A	DD		120	A			
	B					B	DE		100	B			
E	C	M	PP			C	EE		80	C			
									72		A		
	D				A	D			60		B		
					B				50				
									48		C		
									42			A	
	E	P			C	E			40				
									38				Band 1
									35			B	
					D				30				
									28		C		Band 2
					E			A	20				
								B	17				
								C	13				
								D	10				
								E	7				

Key. Adv Higher=Advanced Higher, Int 2=Intermediate 2

<sup>1</sup> Covers the CACHE Diploma in Child Care and Education and comes into effect for entry to higher education in 2004 onwards

<sup>2</sup> Covers the newly specified BTEC National Award, Certificate and Diploma and comes into effect for entry to higher education in 2005 onwards

<sup>3</sup> Covers free-standing Mathematics qualifications – Using and Applying Statistics, Working with Algebraic and Graphical Techniques, Modelling with Calculus

Core Skills <sup>4</sup>	Key Skills <sup>5</sup>	Institute of Financial Services		Points	Music Examinations <sup>8</sup>							
		CFSP <sup>6</sup>	CeFS <sup>7</sup>		Practical			Theory				
					Grade 6	Grade 7	Grade 8	Grade 6	Grade 7	Grade 8		
				75			D					
				70			M					
		Pass	A	60			D					
				55			M	P				
			B	45			D					
				40			M	P				
	Level 4			30								D
				25			P					M
Higher	Level 3			20							D	P
				17								
				15						D	M	
				13								
Int 2	Level 2			10						M	P	
				7								
				5						P		

<sup>4</sup> The points shown are for each of the five Scottish Core Skills – Communication, Information Technology, Numeracy, Problem Solving & Working with Others

<sup>5</sup> The points shown are for each of the three Key Skill qualifications - Application of Number, Communication and Information Technology

<sup>6</sup> The points shown for the IFS Certificate in Financial Services Practice (CFSP) comes into effect for entry to higher education in 2004 onwards

<sup>7</sup> The points shown for the IFS Certificate in Financial Studies (CeFS) come into effect for entry to higher education in 2005 onwards.

<sup>8</sup> The points shown are for ABRSM, Guildhall, LCMM and Trinity music examinations, grades 6, 7 and 8 and come into effect for entry to HE in 2004 onwards

## **The Tariff and the National Qualifications Framework**

The Tariff gives numerical values to qualifications, and establishes agreed equivalences between the types of qualifications covered. The system allows broad comparisons to be made between applicants with different volumes of study and types of achievement. The equivalences derive from those established within the English, Welsh, and Northern Ireland National Framework of Qualifications. Qualifications admitted to the framework are the subject of a rigorous regulation system operated by four sister regulatory authorities: the Qualifications and Curriculum Authority (QCA, in England), the Scottish Qualifications Authority (SQA), the Qualifications Curriculum and Assessment Authority for Wales (ACCAC), and the Council for the Curriculum Examinations and Assessment (CCEA in Northern Ireland), and led by the Qualifications and Curriculum Authority. The framework has been developed to give coherence and clarity to the provision of qualifications. It includes three broad categories of qualifications:

- General, e.g. GCE A-level and the new GCE AS
- Vocationally-related, e.g. VCE A level, VCE AS and VCE Double Award
- Occupational, e.g. National Vocational Qualifications.

Details of the accreditation process are contained in the publication *Arrangements for the statutory regulation of external qualifications in England, Wales and Northern Ireland*.

## **The Tariff – promoting wider access to Higher Education**

The Tariff is highly relevant in the context of the UK government's aim to increase participation rates in Higher Education, in that it covers both standard and non-standard entry routes. One of the features of the expansion of HE over the last decade has been an increase in the types of qualification presented by applicants, some of which may be vocational, some general, some taken mainly by adults, and so on. The advantage of the Tariff is that it facilitates comparison across applicants with very different types and sizes of achievement. It also ensures that UCAS communicates information to HE admissions and academic staff about the nature of such achievements, and that entry requirement information is collected.

The qualifications now seeking entry into the Tariff were introduced for advanced level students in summer 2002 as part of the Government's response to its report *'Excellence in Cities'*. Advanced Extension Awards (AEAs) supersede Special Papers. AEAs were originally intended to be aimed at the top 10% of students nationally in each subject and currently entries are comparatively small (Table 1 in Section 2 gives details). However, it is anticipated that the number of applicants will increase significantly as the value of these awards becomes more widely known. AEAs are intended to differentiate between the most able candidates, particularly in subjects with a high proportion of A Grades at Advanced Level GCE.

## **THE CONDUCT OF THE COMPARABILITY STUDY**

In order to ensure a robust and transparent procedure for allocating UCAS tariff points to qualifications seeking admission to the framework, UCAS approached the University of Oxford, Department of Educational Studies for assistance in developing an appropriate methodology. Acknowledging the problematic nature of comparability studies, the Department proposed a procedure based on the premise that such comparisons can only be achieved through the exercise of collaborative judgement by an expert group. Guidelines were drawn up for the composition of the expert group, the evidence that would need to be collected and examined and the choice of a benchmark qualification. Procedures were developed for the conduct of the work of the expert group, including detailed sets of questions to be addressed at different stages in the process. Section 4 of this report illuminates these procedures and reflects the sets of questions and the decision making process in its structure.

The judgements made by the Expert Group in this report are presented as suggested allocations of UCAS points which take account of the size and demand of the award seeking admission to the Tariff and a candidate's level of attainment within that award. However, the guidelines provide for an automatic review process to be conducted at a later stage in the light of further evidence. This latter point acknowledges the fact that both benchmark qualifications and those seeking admission to the Tariff may still be relatively new. Consequently there may only be a relatively small amount of evidence available at the time of the work of the Expert Group. There is, therefore, a need to review the decisions of the Group when more evidence becomes available and when HE admissions tutors have gained more experience of using the awards as entry qualifications.

The work of the Expert Group is subject to a quality assurance procedure, which includes scrutiny of the Group's report by an independent auditor from Higher Education.

## SUMMARY AND RECOMMENDATIONS

This report provides details of the Comparability Study conducted by an Expert Group to consider the admission of Advanced Extension Awards into the UCAS Tariff. Section 1 sets out the composition of the Expert Group.

Section 2 contains an overview of the aims and assessment objectives of the AEA's.

Section 3 contains a description of the aims, content and assessment of each of the AEA subjects selected for the Comparability Study. Seventeen subjects are offered at AEA, of which candidates aiming for university entrance normally take one (or two at most), in addition to Advanced Level in the same subject. In order to make the Comparability Study feasible, three of these subjects were selected for the current study: Mathematics, Chemistry and English. These subjects were selected because they are amongst those with the highest entry rates currently. The description of each of these subjects is followed by an overview of each of the awards against which the subject is benchmarked, namely Edexcel GCE A Level Mathematics, AQA GCE A Level Chemistry, OCR GCE A Level English Language, English Language and Literature and English Literature.

Section 4 reports on the proceedings and findings of the Expert Group which, for the majority of the meeting, worked as three Subject Groups. Within the guidelines of the task set, each group developed its own methodology guided by a facilitator with a detailed knowledge of the UCAS protocol, for comparing the respective awards in order to take account of differences between the subjects in terms of the sorts of knowledge, skills and understanding they seek to develop in learners.

Section 5 sets out a recommendation for the allocation of UCAS Tariff Points as follows:

Merit	20 UCAS Tariff Points
Distinction	40 UCAS Tariff Points

## **SECTION 1: THE COMPOSITION OF THE EXPERT GROUP**

The following individuals with expert knowledge and experience of the qualifications under consideration in this study were selected:

### Mathematics:

Mr Greg Attwood, Principal Examiner, Mathematics  
Dr Mario Micallef, Admissions Tutor, University of Warwick  
Mr Dave Wilkins, Chief Examiner, A level Pure Mathematics  
Dr Maria Zatorska, Admissions Tutor, University of Bristol

### Chemistry:

Dr Colin Chambers, Chief Examiner for Chemistry, AQA  
Dr Terry Kee, Admissions Tutor, University of Leeds  
Dr Andrew Maczek, Admissions Tutor, University of Sheffield

### English:

Mr Adrian Barlow, Chair of Examiners for English, OCR  
Dr Tracey Hargreaves, Admissions Tutor, University of Leeds

CVs of the Expert Group members may be found at Appendix 1.

Dr Jennifer Tuson acted as facilitator for the work, and together with Helen Wakefield from the UCAS Outreach Department, acted as secretaries to the Group.

The whole process was overseen and quality assured by Dr Geoff Hayward, as an independent representative of Higher Education.

## **SECTION 2: OVERVIEW OF THE AWARD SEEKING ADMISSION TO THE TARIFF**

This section contains an overview of the award seeking admission to the Tariff – the Advanced Extension Award (AEA). Section 3 contains a description of the aims, content and assessment of each of these AEA subjects, followed by an overview of each of the awards against which the subject is benchmarked.

### **GENERAL DESCRIPTION OF THE ADVANCED EXTENSION AWARD**

The following information applies to all AEAs and is taken from the generic information on the QCA website:

#### ***Introduction***

*Advanced Extension Awards (AEAs) were introduced for advanced level students in England, Wales and Northern Ireland in summer 2002 as part of the Government's response to its report "Excellence in Cities". AEAs supersede Special Papers.*

#### ***Aims***

*AEAs should:*

- *challenge the most able advanced level students by providing opportunities for students to demonstrate greater depth of understanding than that required at Advanced GCE;*
- *ensure that the most able students are tested against standards comparable with the most demanding to be found in other countries;*
- *be accessible to all able students, whatever their school or college and whichever specification they are studying, so that significantly more young people have the opportunity to take them;*
- *help differentiate between the most able candidates, particularly in subjects with a high proportion of A grades at Advanced GCE, in order to obviate the need for universities to develop their own entry tests.*

#### ***Design***

- *AEAs have been designed and developed to have the following characteristics. The qualifications:*
- *are based on Advanced GCE subject criteria where they exist rather than individual specifications;*
- *test candidates' depth of understanding and their ability to think critically and creatively;*
- *test candidates' ability to demonstrate an understanding of the connections between different elements of the subject;*
- *require no additional teaching or resources.*

### **Assessment**

*AEA test specifications provide the framework within which the assessment materials are created.*

*All AEAs will have an external assessment of 100%. External assessment is defined as:*

*'a form of independent assessment in which an awarding body sets or defines assignments, tests or examinations, specifies the conditions under which they are to be taken (including details of supervision and duration), and assesses candidates' responses.' (Arrangements for the statutory regulation of external qualifications in England, Wales and Northern Ireland).*

### **Assessment objective**

*There is one assessment objective for all Advanced Extension Awards. This is contained in the test specification for each subject. [These may be found in Section 3 for each subject under consideration – Mathematics, Chemistry, English.]*

### **Mark scheme**

*Assessment materials and mark schemes will lead to awards on a two-point scale: Distinction and Merit, with Distinction being the higher. Candidates who do not reach the minimum standard for Merit will be recorded as ungraded. Mark schemes will reward positive achievement and maximise the consistency of marking.*

### **Performance level descriptors**

*Performance level descriptors indicate the level of attainment characteristic of Merit and Distinction. They give a general indication of the required learning outcomes at each level. The grade awarded will depend in practice upon the extent to which the candidate has met the assessment objective overall. [These may be found in Section 3 for each subject under consideration – Mathematics, Chemistry, English.]*

### **Selecting candidates**

*AEAs are aimed at the top 10% of students nationally in each subject. The national profile of attainment varies quite markedly from subject to subject and centre to centre. Teachers should be confident that candidates entered for these awards are likely to attain a grade A securely in the corresponding A level. For Critical Thinking - where there is no full A level or subject criteria - centres should enter candidates who are generally expected to perform significantly above the grade A. Centres may enter as many or as few candidates as they wish for each AEA.*

The 17 subjects, and their numbers of entries for 2003, are shown in Table 1.

**Table 1 AEA entries in 2003**

Biology	752	History	542
Chemistry	821	Irish	12
Critical Thinking	210	Latin	82
Economics	466	Mathematics	1005
English	1341	Physics	832
French	357	Religious Studies	125
Geography	428	Spanish	110
German	125	Welsh and Welsh Second Language (Combined)	22

### **SECTION 3: OVERVIEW OF AEA SUBJECTS AND THE BENCHMARK AWARDS**

This section contains a description of the aims, content and assessment of the three AEA subjects selected for the Comparability Study: Mathematics, Chemistry and English. Each AEA subject is administered by one Awarding Body on behalf of all of the Awarding Bodies and so the benchmark awards described in this section were chosen because they were offered by the Awarding Body responsible for the AEA in that subject. To ease comparison of the AEA and A Level descriptions these are presented side by side in the following pages.

### Section 3.1 Mathematics Advanced level and Advanced Extension Award

	A Level	AEA
Aims	<p>Should encourage candidates to:</p> <ol style="list-style-type: none"> <li>develop their understanding of mathematics and mathematical processes in a way that promotes confidence and fosters enjoyment</li> <li>develop abilities to reason logically and recognise incorrect reasoning, to generalise and to construct mathematical proofs</li> <li>extend their range of mathematical skills and techniques and use them in more difficult, unstructured problems</li> <li>develop an understanding of coherence and progression in mathematics and of how different areas of mathematics can be connected</li> <li>recognise how a situation may be represented mathematically and understand the relationship between ‘real-world’ problems and standard and other mathematical models and how these can be refined and improved</li> <li>use mathematics as an effective means of communication</li> <li>read and comprehend mathematical arguments and articles concerning applications of mathematics</li> <li>acquire the skills needed to use technology such as calculators and computers effectively, recognise when such use may be inappropriate and be aware of limitations</li> <li>develop an awareness of the relevance of mathematics to other fields of study, to the world of work and to society in general</li> <li>take increasing responsibility for their own learning and the evaluation of their own mathematical development.</li> </ol>	<p>Should encourage candidates to:</p> <ul style="list-style-type: none"> <li>use what they have been taught;</li> <li>think beyond what they have been taught;</li> <li>build chains of logical reasoning and use concepts of proof;</li> <li>develop confidence, stamina and fluency in working through unfamiliar and/or unstructured problems which might demand multi-step analysis or the exploration of different possibilities;</li> <li>think critically and evaluate critically a mathematical argument;</li> <li>solve mathematical problems with elegance, clarity and insight</li> </ul>
Content	See specification	<p>AEA requires no knowledge beyond the pure mathematics core (P1, P2, P3) but does require extended mathematical thinking beyond the level required for A Level.</p> <p>See specification (a subset of A Level content for P1, P2 and P3)</p>

	<b>A Level</b>	<b>AEA</b>
Assessment Objectives	<p><b>AO1</b> recall, select and use their knowledge of mathematical facts, concepts and techniques in a variety of contexts.</p> <p><b>AO2</b> construct rigorous mathematical arguments and proofs through use of precise statements, logical deduction and inference and by the manipulation of mathematical expressions, including the construction of extended arguments for handling substantial problems presented in unstructured form.</p> <p><b>AO3</b> recall, select and use their knowledge of standard mathematical models to represent situations in the real world; recognise and understand given representations involving standard models; present and interpret results from such models in terms of the original situation, including discussion of the assumptions made and refinement of such models.</p> <p><b>AO4</b> comprehend translations of common realistic contexts into mathematics; use the results of calculations to make predictions, or comment on the context; and, where appropriate, read critically and comprehend longer mathematical arguments or examples of applications.</p> <p><b>AO5</b> use contemporary calculator technology and other permitted resources (such as formulae booklets or statistical tables) accurately and efficiently; understand when not to use such technology, and its limitations. Give answers to appropriate accuracy.</p>	<p>Candidates' abilities to solve a range of unfamiliar problems that can be generated from the content specified above.</p> <p>Candidates will be assessed on their ability to apply and communicate effectively their understanding of mathematics (including for example problem-solving and the use of deductive logic), using the skills of critical analysis (including critical comment on an incorrect argument), evaluation and synthesis.</p> <p>Marks will also be awarded for style and clarity of mathematical presentation.</p>

	<b>A Level</b>	<b>AEA</b>
Assessment	<p>AS Three 1½ hour papers  A level Three 1½ hour papers (plus projects for statistics units)  Percentage weighting of the Assessment Objectives:</p> <p>AO1 Recall, select, use facts, concepts, techniques 30%  AO2 Argument, proof, deduction, inference, manipulate mathematical expressions, handle substantial problems presented in unstructured form 30%  AO3 Recall, select, use standard mathematical models; present and interpret results from such models in terms of the original situation 10%  AO4 Translations of common realistic contexts into mathematics; use the results of calculations to make predictions; read critically longer mathematical arguments or examples of applications 5%  AO5 Use contemporary calculator technology etc accurately and efficiently; understand when not to use such technology. Give answers to appropriate accuracy 5%</p>	<p>One 3 hour paper of about 7 questions, questions may be multi-step with confidence building parts or unstructured. Some may be of an unusual nature that might include topics from GCSE and logic-based items. Questions maybe open-ended.  There are no optional questions and full-marks can only be achieved by outstanding answers to all the questions.  Seven percent of the marks on the mathematics paper as a whole will be assigned for style and clarity of mathematical presentation. The examiners will seek to reward elegance of solution, insight in reaching a solution, rigour in developing a mathematical argument and excellent use of notation. These marks will be awarded across the paper and not attached in advance to individual questions. However, examiners may reward all the marks to an exceptionally brilliant solution to any particular question. Each candidate will be rewarded with 0-7% of the total mark for the style and clarity of his or her presentation.</p>

	<b>A Level</b>	<b>AEA</b>
Grade descriptions	<p><b>Grade A</b> Candidates recall or recognise almost all the mathematical facts, concepts and techniques that are needed, and select appropriate ones to use in a wide variety of contexts.</p> <p>Candidates manipulate mathematical expressions and use graphs, sketches and diagrams, all with high accuracy and skill. They use mathematical language correctly and proceed logically and rigorously through extended arguments or proofs. When confronted with unstructured problems they can often devise and implement an effective solution strategy. If errors are made in their calculations or logic, these are sometimes noticed and corrected.</p> <p>Candidates recall or recognise almost all the standard models that are needed, and select appropriate ones to represent a wide variety of situations in the real world. They correctly refer results from calculations using the model to the original situation; they give sensible interpretations of their results in the context of the original realistic situation. They make intelligent comments on the modelling assumptions and possible refinements to the model.</p> <p>Candidates comprehend or understand the meaning of almost all translations into mathematics of common realistic contexts. They correctly refer the results of calculations back to the given context and usually make sensible comments or predictions. They can distil the essential mathematical information from extended pieces of prose having mathematical content. They can comment meaningfully on the mathematical information.</p> <p>Candidates make appropriate and efficient use of contemporary calculator technology and other permitted resources, and are aware of any limitations to their use. They present results to an appropriate degree of accuracy.</p>	<p><b>Merit</b> Candidates:</p> <ul style="list-style-type: none"> <li>• demonstrate understanding and command of many of the topics tested.</li> </ul> <p>They will often:</p> <ul style="list-style-type: none"> <li>• handle complex mathematical expressions accurately;</li> <li>• exhibit insight and clarity of thought;</li> <li>• adopt effective and imaginative mathematical strategies to produce logically coherent and elegant solutions to problems;</li> <li>• set out formal proofs, generalise and pick out special cases;</li> <li>• detect and correct faulty logic;</li> <li>• cope with unfamiliar situations and unstructured questions.</li> </ul> <p><b>Distinction</b> Candidates:</p> <ul style="list-style-type: none"> <li>• demonstrate understanding and command of most of the topics tested.</li> </ul> <p>They will usually:</p> <ul style="list-style-type: none"> <li>• handle complex mathematical expressions accurately;</li> <li>• exhibit insight and clarity of thought;</li> <li>• adopt effective and imaginative mathematical strategies to produce logically coherent and elegant solutions to problems;</li> <li>• set out formal proofs, generalise and pick out special cases;</li> <li>• detect and correct faulty logic;</li> <li>• cope with unfamiliar situations and unstructured questions.</li> </ul>

### Section 3.2 Chemistry Advanced level and Advanced Extension Award

	A Level	AEA
Aims	<p>Should encourage candidates to:</p> <ol style="list-style-type: none"> <li>develop essential knowledge and understanding of the concepts of chemistry, and the skills needed for the use of these in new and changing situations;</li> <li>develop an understanding of the link between theory and experiment;</li> <li>be aware of how advances in information technology and instrumentation are used in chemistry;</li> <li>appreciate the contributions of chemistry to society and the responsible use of scientific knowledge and evidence;</li> <li>sustain and develop their enjoyment of, and interest in, chemistry</li> <li>bring together knowledge of ways in which different areas of chemistry relate to each other</li> </ol> <p>(a-e AS and A Level, f additional for A Level)</p>	<p>Should encourage candidates to:</p> <ul style="list-style-type: none"> <li>• bring together knowledge of ways in which different areas of chemistry relate to each other;</li> <li>• demonstrate their depth of knowledge and understanding of the materials within the Advanced GCE through:               <ul style="list-style-type: none"> <li>○ applying chemical concepts in novel situations;</li> <li>○ critical analysis of chemical information, such as experimental methods or data;</li> <li>○ proposing solutions to chemical problems; and</li> <li>○ evaluating information and evidence about how chemistry is used and applied in society</li> </ul> </li> </ul>
Content	See specification	See specification, Appendix 1 (a subset of A Level content)
Assessment Objectives	<p>AO1 Knowledge with Understanding            AO2 Application of Knowledge and Understanding, Analysis and Evaluation            AO3 Experiment and Investigation            AO4 Synthesis of Knowledge, Understanding and Skills            Quality of written communication (assessed within AO1-AO4)</p> <p>(AO1-AO3 AS and A Level, AO4 additional for A Level)</p>	<p>Candidates' abilities to apply and communicate effectively their understanding of chemistry, using the skills of critical analysis, evaluation, synthesis and by applying mathematical techniques to chemical contexts</p>

	<b>A Level</b>	<b>AEA</b>
Assessment	<p>AS Three 1 hour papers (structured and extended answer questions) plus coursework or practical exam</p> <p>A level Three papers of 1, 1½ and 2 hours (structured, extended answer and multiple choice questions) plus coursework or practical exam</p> <p>AO1 Knowledge with Understanding</p> <p>a) recognise, recall and show understanding of specific chemical facts, terminology, principles, concepts and practical techniques;</p> <p>b) draw on existing knowledge to show understanding of the responsible use of chemistry in society;</p> <p>c) select, organise and present relevant information clearly and logically, using specialist vocabulary where appropriate.</p> <p>AO2 Application of Knowledge and Understanding, Analysis and Evaluation</p> <p>a) describe, explain and interpret phenomena and effects in terms of chemical principles and concepts, presenting arguments and ideas clearly and logically, using specialist vocabulary where appropriate;</p> <p>b) interpret and translate, from one form into another, data presented as continuous prose or in tables, diagrams and graphs;</p> <p>c) carry out relevant calculations;</p> <p>d) apply chemical principles and concepts to unfamiliar situations, including those related to the responsible use of chemistry in society;</p> <p>e) assess the validity of chemical information, experiments, inferences and statements.</p>	<p>One 3 hour paper of 4 to 6 questions, with balance across the main areas of chemistry.</p> <p>In some problem solving questions candidates should be given no guidance about approach. When guidance is given it should be kept to a minimum.</p> <p>The paper should include questions where candidates are:</p> <p>i) provided with unfamiliar information, eg, spectra, reaction sequences, details of properties, and are asked to apply existing knowledge and understanding to the context of the material, for example, to predict products, identify compounds, suggest mechanisms, evaluate uses of products;</p> <p>ii) provided with data related to laboratory work or from other sources, asked to analyse and evaluate this critically and to use the analysis, for example, to propose a solution to a problem, to propose additional data to be collected to overcome weaknesses in the data available or to verify the validity of conclusions drawn. This could be linked to part of a question on planning investigative procedures;</p> <p>iii) asked to give an extended structured account of an area of chemistry in which they draw together, select appropriate knowledge and understanding, and demonstrate an ability to marshal an argument, for example, in evaluating a statement about chemical processes, principles, group of reactions; candidates should be given a choice of one out of two alternatives which should be based on the same approach and of a similar style;</p>

<p>Assessment continued</p>	<p>AO3 Experiment and Investigation</p> <ol style="list-style-type: none"> <li>devise and plan experimental and investigative activities, selecting appropriate techniques;</li> <li>demonstrate safe and skilful practical techniques;</li> <li>make observations and measurements with appropriate precision and record these methodically;</li> <li>interpret, explain, evaluate and communicate the results of their experimental and investigative activities clearly and logically using chemical knowledge and understanding, and using appropriate specialist vocabulary.</li> </ol> <p>AO4 Synthesis of Knowledge, Understanding and Skills</p> <ol style="list-style-type: none"> <li>bring together knowledge, principles and concepts from different areas of chemistry, including experiment and investigation, and apply them in a particular context, expressing ideas clearly and logically and using appropriate specialist vocabulary;</li> <li>use chemical skills in context which bring together different areas of the subject.</li> </ol> <p>Quality of Written Communication</p> <p>The quality of written communication is assessed in all assessment units where candidates are required to produce extended written material. Candidates will be assessed according to their ability to:</p> <ul style="list-style-type: none"> <li>select and use a form and style of writing appropriate to purpose and complex subject matter;</li> <li>organise relevant information clearly and coherently, using specialist vocabulary when appropriate;</li> <li>ensure text is legible, and spelling, grammar and punctuation are accurate, so that meaning is clear.</li> </ul> <p>The assessment of the quality of written communication is included in all four Assessment Objectives.</p>	<ol style="list-style-type: none"> <li>provided with material (either one source or several sources) from which they select information to evaluate, illustrate or develop principles, patterns or hypotheses, or to solve a problem;</li> <li>asked to solve short chemical problems, for example, work out a formula using titrimetric data, suggest organic synthetic routes, involving several steps, identify inorganic unknowns from reaction data;</li> <li>asked questions which involve solving multi-step problems.</li> </ol>
-----------------------------	--	--

	<b>A Level</b>	<b>AEA</b>
Grade descriptions	<p><b>Grade A</b> Candidates recall and use chemical knowledge from the whole specification with few significant omissions and show good understanding of the principles and concepts they use. They are thoroughly conversant with the construction of chemical equations and use them quantitatively in a range of contexts. They select chemical knowledge relevant to most situations and present their ideas clearly and logically, making use of appropriate chemical terminology.</p> <p>Candidates carry out calculations in a logical manner even when little guidance is given. They demonstrate good understanding of principles, applying them in familiar and new contexts, <i>for example, in determining the order of reaction from empirical results, in predicting the conditions which might be used in an industrial process, in using knowledge of the periodic table to predict reactions of unfamiliar elements or compounds or in predicting the reactions of organic compounds containing specific functional groups.</i> They bring together and use knowledge and understanding from more than one area of the specification, <i>for example, in suggesting a method of synthesising a particular compound or in interpreting evidence relating to the structure of a molecule or ion.</i></p> <p>In experimental activities, candidates independently formulate a clear and accurate plan. They use a range of manipulative techniques safely and skilfully, making and recording observations with appropriate precision. They interpret, explain and evaluate results, using appropriate chemical knowledge and terminology.</p>	<p><b>Merit</b> Candidates:</p> <ol style="list-style-type: none"> <li>1 use and apply the specified chemical knowledge, with few significant omissions;</li> <li>2 select the relevant chemical information, principles and concepts and bring together principles and concepts from different areas of chemistry in seeking a solution, demonstrating a clear understanding of relationships between these;</li> <li>3 demonstrate good understanding of principles and concepts, applying them to familiar and new contexts;</li> <li>4 communicate their ideas clearly and logically, making use of appropriate chemical and mathematical terminology;</li> <li>5 carry out calculations in a logical manner, even when little guidance is given;</li> <li>6 are thoroughly conversant with the use of chemical equations and use them in a range of contexts, including quantitative contexts;</li> <li>7 interpret, analyse and evaluate qualitative information and quantitative data from a range of sources, identifying weaknesses and strengths, and drawing appropriate inferences.</li> </ol> <p><b>Distinction</b> Candidates:</p> <ol style="list-style-type: none"> <li>1 use and apply the specified chemical knowledge, with no significant omissions;</li> <li>2 select and use the relevant chemical information, principles and concepts, recognise information that is not relevant, and bring together principles and concepts from different areas of the subject in seeking a solution, demonstrating a clear and deep understanding of the relationships between these;</li> <li>3 apply principles and concepts in a range of familiar and new contexts proficiently and sometimes innovatively;</li> <li>4 communicate their ideas with clarity and precision, selecting a</li> </ol>

		<p>form appropriate to the context, and make effective use of appropriate chemical and mathematical terminology, concepts, data and techniques in constructing arguments and solving problems;</p> <p>5 carry out calculations in a logical and concise manner, even when no guidance is given;</p> <p>6 are thoroughly conversant with the use of chemical equations and use them in a range of contexts, including quantitative contexts, and will select ways of presenting and using chemical equations appropriate to the context;</p> <p>7 interpret, analyse and evaluate qualitative information and quantitative data from a range of sources, identifying weaknesses and strengths, and suggest improvements, and draw inferences and, where appropriate, relate these to other contexts.</p>
--	--	---

### Section 3.3 English Advanced level and Advanced Extension Award

	<b>A Level English Language</b>	<b>AEA English</b>
Aims	<p>To bring candidates to greater awareness of their own intuitive understanding of the structure and functions of English, to help them explore that understanding and to strengthen it.</p> <p>Should encourage candidates to develop knowledge and understanding in the following areas:</p> <ol style="list-style-type: none"> <li>frameworks for the systematic study of language at different levels of analysis, including phonology, lexis, grammar and semantics;</li> <li>variations in language according to mode (speech and writing) and context;</li> <li>the application, and (in A2) the usefulness, of different linguistic frameworks for the description and analysis of speech and writing;</li> <li>how geographical, social, personal and (at A2) historical variation shape and change forms and meanings in language</li> </ol> <p>(Specification p4)</p> <p>The introduction to the specification gives the four subject criteria; three of these match aims a, b and d above. The remaining criterion is: appropriate and accurate control of written English for a variety of audiences and purposes; this should include the production, interpretation, adaptation or re-presentation of texts.</p> <p>(Specification p1)</p>	<p>Should be accessible to the most able students studying English Language, English Literature, and English Language and Literature.</p> <p>Should encourage candidates to:</p> <ul style="list-style-type: none"> <li>acquire greater skills of enquiry, analysis and synthesis within the three English disciplines;</li> <li>write with precision and conviction;</li> <li>sustain their interest and enjoyment of literary and/or linguistic study;</li> <li>engage intelligently and creatively with a wide selection of unseen texts, regardless of the Advanced GCE English specification/s being followed; and</li> <li>work with insight and originality on tasks that move beyond those of the English Advanced GCE synoptic modules</li> </ul>
	<b>A Level English Language and Literature</b>	
	<p>To enable students to enjoy the study of literature and language.</p> <p>Specifically, to encourage candidates:</p> <ul style="list-style-type: none"> <li>to study language and literature as interconnecting disciplines;</li> <li>to develop their ability to use linguistic and literary critical concepts and analytical frameworks in commenting on a wide range of spoken language texts and written texts;</li> <li>to develop as independent, confident and reflective readers, enabling them to relate literary and non-literary texts to the contexts in which they were produced; also to develop their skills in speaking and writing for different purposes and audiences.</li> </ul> <p>Additionally, at A2 to encourage candidates:</p> <ul style="list-style-type: none"> <li>to make comparisons and connections between a range of texts, and to make independent judgements about the range of approaches that can be adopted in understanding the inter-relationship between language and literature.</li> </ul>	
	<b>A Level English Literature</b>	
	<p>To enable candidates to enjoy the study of literature.</p> <p>Specifically, to encourage candidates:</p> <ul style="list-style-type: none"> <li>to develop their interest and enjoyment in literary studies through reading widely, independently and critically;</li> <li>to gain an insight into the traditions of English Literature, and to take the opportunity also to read both texts in English written outside the UK and literature in translation;</li> <li>to develop as confident, independent and reflective readers of a range of texts, learning to express their responses effectively through speech and writing;</li> <li>to use critical concepts and terminology with understanding and discrimination;</li> <li>to reflect on their own responses to texts, informed by other readers' interpretations, with an awareness of the contexts in which texts were written.</li> <li>to use their detailed knowledge and understanding of individual texts to explore comparisons and connections between them, and to appreciate the significance of cultural and historical influences upon readers and writers.</li> </ul>	

<b>A Level English Language</b>		<b>AEA English</b>
Content	<p>These Advanced Subsidiary GCE and Advanced GCE specifications in English Language encourage candidates to develop their interest and enjoyment in the use of English, through learning more about the structures and functions of English, drawing on their experience and knowledge of language change and variation. Candidates learn to express themselves in speech and writing with increasing competence and sophistication, undertake a varied programme of reading, and develop skills of listening critically and attentively to spoken English.</p> <p>The Advanced Subsidiary course introduces candidates to an understanding of concepts and frameworks for the study of language, and enables them to apply these to investigate their own and others' use of speech (note that 'speech' and 'spoken English' may include transcripts) and writing. Advanced Subsidiary courses develop candidates' skills in speaking and writing for different purposes and audiences, as well as their ability to respond perceptively to the different varieties of English they hear and read.</p> <p>The Advanced GCE course in English Language develops further candidates' knowledge of and ability to apply a range of linguistic frameworks to a wide variety of texts from both the past and the present. Advanced GCE candidates become increasingly able to select and use the frameworks most appropriate for their investigation and research, and express themselves with fluency and competence in speech and writing. (Specification piv)</p> <p>It may help to consider here the description of the synoptic assessment: Synoptic assessment involves the explicit synthesis of insights developed through the application of theoretical frameworks to the study of language, both spoken and written. It requires candidates to show evidence that their critical understanding of meaning and variation in language is informed by the appropriate use of linguistic analyses, and to demonstrate their skills of interpretation and expression in accurate, well-argued responses.' (QCA Subject Criteria, 1999) (Specification p14)</p> <p>It may also help to include here guidance from Section 5 Specification Units which includes aspects of evaluation</p> <ul style="list-style-type: none"> <li>• analyse and evaluate variation in written and spoken language, including language from the past;</li> <li>• make connections between their knowledge and understanding of concepts and frameworks for the study of language and evaluate the suitability of these as tools for analysis of language in use (p19)</li> </ul> <p>to analyse and evaluate variation in forms and meanings of spoken and written language from different times according to context (p23) analyse and evaluate variation in spoken and/or written language according to context (p24)</p>	<p>The AEA in English will assess candidates' ability to:</p> <ol style="list-style-type: none"> <li>1. understand and analyse texts of different types and periods using appropriate conceptual frameworks;</li> <li>2. understand and evaluate the ways in which contextual variation and choices of form, style and vocabulary shape the meanings of texts;</li> <li>3. generate and synthesise insights and apply knowledge gained from Advanced GCE specification content;</li> <li>4. articulate independent opinions and judgements on the significance of texts, informed by knowledge of other approaches to interpretation and analysis; and</li> <li>5. write precisely and with some originality in response to tasks set.</li> </ol>
<b>A Level English Language and Literature</b>		
	<p>These specifications cover knowledge and understanding of the following areas:</p> <ul style="list-style-type: none"> <li>• the ways in which the study of language and literature inform each other;</li> <li>• a range of literary and non-literary texts, covering the literary genres prose, poetry and drama; literature published before 1900 and (in A2) before 1770;</li> <li>• linguistic concepts and key features of frameworks for the study of spoken and written language, drawn from the different systems of phonology, lexis, grammar and semantics;</li> <li>• the ways in which forms and meanings in language are shaped by variations in mode, use, time or place;</li> <li>• the ways in which spoken language and written texts relate to the contexts in which they were created (AS) and have been interpreted by different readers or listeners at different times (A2). (Specification piv)</li> </ul>	

<b>A Level English Literature</b>	
Content	<p>The Advanced Subsidiary GCE specification covers, within a programme of wider reading, a minimum of four texts, including:</p> <ul style="list-style-type: none"> <li>• The study of at least one text from each of the genres prose, poetry and drama;</li> <li>• The study of a play by Shakespeare, and at least one other pre-1900 text.</li> </ul> <p>The full Advanced GCE specification requires, ..., the study of a further four texts, including:</p> <ul style="list-style-type: none"> <li>• The study of at least one text from each of the genres prose, poetry and drama</li> <li>• The study of at least one text published pre-1770 and another published pre-1900</li> <li>• Comparative study of at least two whole texts within the context of a detailed study of a literary topic area. (Specification piv)</li> </ul>

	<b>A Level English Language</b>	<b>AEA English</b>
Assessment Objectives	<p><b>AO1</b> communicate clearly the knowledge, understanding and insight appropriate to the study of language, using appropriate terminology and accurate and coherent written expression</p> <p><b>AO2</b> demonstrate expertise and accuracy in writing for a variety of specific purposes and audiences, drawing on knowledge of linguistic features to explain and comment on choices made</p> <p><b>AO3i</b> know and use key features of frameworks for the systematic study of spoken and written English</p> <p><b>AO3ii</b> apply and explore frameworks for the systematic study of language at different levels, commenting on the usefulness of the approaches taken</p> <p><b>AO4</b> understand, discuss and explore concepts and issues relating to language in use</p> <p><b>AO5i</b> distinguish, describe and interpret variation in the meanings and forms of spoken and written language according to context</p> <p><b>AO5ii</b> analyse and evaluate variation in the meanings and forms of spoken and written language from different times according to context</p> <p>(Specification p6)</p> <p>It may help to consider here the description of the synoptic assessment:  Synoptic assessment involves the explicit synthesis of insights developed through the application of theoretical frameworks to the study of language, both spoken and written. It requires candidates to show evidence that their critical understanding of meaning and variation in language is informed by the appropriate use of linguistic analyses, and to demonstrate their skills of interpretation and expression in accurate, well-argued responses.’  (QCA Subject Criteria, 1999) (Specification p14)</p>	<p>Candidates’ abilities to apply and communicate effectively their knowledge and understanding of English, some of its methodologies and texts, using the skills of critical analysis, evaluation and synthesis.</p>
	<b>A Level English Language and Literature</b>	

	<p><b>AO1</b> communicate clearly the knowledge, understanding and insights gained from the combined study of literary and linguistic study, using appropriate terminology and accurate written expression</p> <p><b>AO2i</b> in responding to literary and non-literary texts, distinguish, describe and interpret variation in meaning and form</p> <p><b>AO2ii</b> respond with knowledge and understanding to texts of different types and from different periods exploring and commenting on relationships and comparisons between them</p> <p><b>AO3i</b> respond to and analyse texts, using literary and linguistic concepts and approaches</p> <p><b>AO3ii</b> use and evaluate different literary and linguistic approaches to the study of written and spoken language, showing how these approaches inform their readings</p> <p><b>AO4</b> show understanding of the ways contextual variation and choices of form, style and vocabulary shape the meanings of texts</p> <p><b>AO5</b> identify and consider the ways attitudes and values are created and conveyed in speech and writing</p> <p><b>AO6</b> demonstrate expertise and accuracy in writing for a variety of specific purposes and audiences, drawing on knowledge of literary texts and features of language to explain and comment on the choices made.</p> <p>(Specification p6)</p> <p>Synoptic assessment in English Language and Literature takes account of the requirement that Advanced GCE qualifications should enable candidates to develop a broader and deeper understanding of the connections between knowledge and understanding set out in the specification as a whole, including the requirement to produce a range of written work which is accurate, well structured and appropriate to its purpose. Synoptic assessment involves the explicit synthesis of insights gained from the study of a range of texts, both spoken and written. Candidates are required to demonstrate the ability to analyse and comment on a range of familiar and unfamiliar texts from the past and the present. The specification ensures that candidates draw on literary and linguistic approaches in articulating critical, informed readings, showing that they understand how the contextual factors can influence interpretations.. (QCA Subject Criteria for English Language and Literature: 1999) (Specification p15)</p>	
	<b>A Level English Literature</b>	

<p>Assessment Objectives</p>	<p><b>AO1</b> communicate clearly the knowledge, understanding and insight appropriate to literary study, using appropriate terminology and accurate and coherent written expression</p> <p><b>AO2i</b> respond with knowledge and understanding to literary texts of different types and periods</p> <p><b>AO2ii</b> respond with knowledge and understanding to literary texts of different types and periods, exploring and commenting on relationships and comparisons between literary texts</p> <p><b>AO3</b> show detailed understanding of the ways in which writers' choices of form, structure and language shape meanings</p> <p><b>AO4</b> articulate independent opinions and judgements, informed by different interpretations of literary texts by other readers</p> <p><b>AO5i</b> show understanding of the contexts in which literary texts are written and understood</p> <p><b>AO5ii</b> evaluate the significance of cultural, historical and other contextual influences on literary texts and study (Specification p6)</p> <p>Synoptic assessment in English Literature takes account of the requirement that Advanced GCE qualifications should enable candidates to develop a broader and deeper understanding of the connections between the knowledge and understanding set out in the specification as a whole. Synoptic assessment involves the explicit synthesis of insights gained from a close and detailed study of a range of texts important for the development of English Literature. It requires candidates to show evidence of the ways in which contextual factors and different interpretations of texts illuminate their own readings, and ensure that candidates demonstrate their skills of interpretation and expression to give articulate, well-argued responses.' (QCA Subject Criteria, 1999) (Specification p14)</p>	
------------------------------	---	--

	<b>A Level English Language</b>	<b>AEA English</b>
Assessment	<p>AS: Two papers of 1¼ hours (one compulsory question which requires analysis of a set passage of speech transcript) and 1¾ hours (one compulsory essay question that focuses on an issue of specific written language usage and either one question on child language acquisition or one question on levels of formality and register) plus coursework (folder containing original writing in two different modes accompanied by a commentary evaluating the work and the differences in linguistic features between the pieces)</p> <p>A level: AS plus two papers of 2 hours (one question on structures from a choice of three and one question on social context from a choice of three) and 2¼ hours (two compulsory questions focused on one set of passage-based source material – one requires candidates to transpose the content of a transcript of natural spoken language and write a commentary on this, the other requires candidates to analyse and account for key features of language use in the data presented) plus coursework (a piece of original research on a topic connected with the study of language)</p> <p>Percentage weighting of the Assessment Objectives:</p> <p><b>AO1</b> knowledge, understanding and insight 20%</p> <p><b>AO2</b> writing for a variety of specific purposes and audiences 15%</p> <p><b>AO3i</b> frameworks for the systematic study of spoken and written English 10%</p> <p><b>AO3ii</b> apply and explore frameworks for the systematic study of language at different levels, commenting on the usefulness of the approaches taken 15%</p> <p><b>AO4</b> concepts and issues relating to language in use 20%</p> <p><b>AO5i</b> variation in the meanings and forms of spoken and written language according to context 10%</p> <p><b>AO5ii</b> analyse and evaluate variation in the meanings and forms of spoken and written language from different times according to context 10%</p> <p>The descriptions of the Units (Specification pp20 – 25) give more detail and may be helpful here but are not reproduced here</p>	<p>One three hour written examination, of which up to one hour will be recommended as reading time. Two equally weighted questions from a choice of up to six. The examination will be based on a collection of textual material which will invite candidates to focus on a central issue/major ideas in the subject. It will typically comprise the following elements:</p> <ul style="list-style-type: none"> <li>• unfamiliar primary texts from different genres and periods, drawn from spoken and written language, and selected to facilitate comparisons and connections;</li> <li>• some secondary texts linked to the primary reading material by, for example, authorship, context, or specific commentary, and which raise issues of literary or linguistic debate relevant to the interpretation of the primary texts;</li> <li>• other secondary materials which demonstrate a range of critical views, theoretical positions and analytical approaches which have the potential to illuminate and challenge ways of reading the package as a whole.</li> </ul> <p><i>The tasks set or routes through the material should enable candidates to draw on either literary or linguistic studies or a combination of both. Where appropriate to the textual material, question styles may include opportunities for candidates to produce their own imaginative or recreative writing.</i></p> <p>Questions will require candidates to:</p> <ul style="list-style-type: none"> <li>• closely read and analyse some of the primary texts;</li> <li>• discuss some of the relationships between the primary and secondary texts;</li> <li>• reflect critically on issues raised by the package as a whole, taking account of such matters as contextual factors, methods of analysis, topics of literary or linguistic debate.</li> </ul>

Not repeated for A Level English Literature and A Level English Language and Literature

	<b>A Level English Language</b>	<b>AEA English</b>
Grade descriptions	<p><b>Grade A</b></p> <p>In response to the tasks set, candidates demonstrate a comprehensive theoretical knowledge of the way language works as a multi-layered system, through their analysis and evaluation of a range of material from the present to the past.</p> <p>They select and apply analytical frameworks appropriately and systematically in their own investigation and research, evaluating the usefulness of the approaches taken to the description of spoken and written English.</p> <p>Candidates explore perceptively and critically concepts and viewpoints relating to language in use, supporting coherent, well-argued discussion with relevant examples, using appropriate terminology.</p> <p>Their writing is fluent, well structured, accurate and precise, demonstrating awareness of a wide range of different audiences and purposes.</p> <p>(Specification p18)</p>	<p><b>Merit</b></p> <p>Candidates:</p> <ul style="list-style-type: none"> <li>• analyse unfamiliar texts perceptively and cogently, selecting relevant conceptual frameworks and demonstrating knowledge of contextual factors or other analytical approaches;</li> <li>• make thoughtful and original connections and comparisons between unfamiliar texts and concepts to illuminate meanings and to validate judgements or support hypotheses, drawing on knowledge of texts already studied;</li> <li>• discuss literary/ linguistic issues perceptively and reflectively and to argue a point of view convincingly, using well-selected evidence;</li> <li>• write in a lively, cogent and convincing style with accuracy and control</li> </ul> <p><b>Distinction</b></p> <p>Candidates:</p> <ul style="list-style-type: none"> <li>• analyse unfamiliar texts in ways which demonstrate critical understanding and insight, using conceptual frameworks, knowledge of contextual factors and other analytical approaches to reach secure and stimulating judgements;</li> <li>• make connections and comparisons between texts at different levels, generating sophisticated and convincing readings of the inter-relationships between language, ideas, viewpoints and content;</li> <li>• discuss literary/linguistic issues rigorously and elucidate their debates with knowledge, evidence and conviction, arguing a point of view from a coherently constructed position;</li> <li>• demonstrate skills of synthesis in writing which is precise, individual and mature in style.</li> </ul>

	<b>A Level English Language and Literature</b>	<b>AEA English</b>
Grade descriptions	<p><b>Grade A</b></p> <p>Candidates demonstrate a thorough and wide ranging knowledge and understanding of the concepts and frameworks used in the study of English Language and English Literature, and the connections between them, in response to the tasks set.</p> <p>They make cogent comparisons and links across a range of texts and present thoughtful distinctions and convincing judgements which draw on their appreciation of the influences of social, cultural and historical contexts.</p> <p>Candidates show critical awareness of different approaches to the analysis of spoken and written texts, and write in a fluent, precise and accurate style, adapted to audience and purpose.</p> <p>In their independent studies of literary and non-literary texts, they support well-organised and coherent arguments with effectively chosen examples. (Specification p20)</p>	<p><b>Merit</b></p> <p>Candidates:</p> <ul style="list-style-type: none"> <li>analyse unfamiliar texts perceptively and cogently, selecting relevant conceptual frameworks and demonstrating knowledge of contextual factors or other analytical approaches;</li> <li>make thoughtful and original connections and comparisons between unfamiliar texts and concepts to illuminate meanings and to validate judgements or support hypotheses, drawing on knowledge of texts already studied;</li> <li>discuss literary/ linguistic issues perceptively and reflectively and to argue a point of view convincingly, using well-selected evidence;</li> <li>write in a lively, cogent and convincing style with accuracy and control</li> </ul> <p><b>Distinction</b></p> <p>Candidates:</p> <ul style="list-style-type: none"> <li>analyse unfamiliar texts in ways which demonstrate critical understanding and insight, using conceptual frameworks, knowledge of contextual factors and other analytical approaches to reach secure and stimulating judgements;</li> <li>make connections and comparisons between texts at different levels, generating sophisticated and convincing readings of the inter-relationships between language, ideas, viewpoints and content;</li> <li>discuss literary/linguistic issues rigorously and elucidate their debates with knowledge, evidence and conviction, arguing a point of view from a coherently constructed position;</li> <li>demonstrate skills of synthesis in writing which is precise, individual and mature in style.</li> </ul>

	A Level English Literature	AEA English
Grade descriptions	<p><b>Grade A</b> Candidates demonstrate a comprehensive, detailed knowledge and understanding of a wide range of literary texts from the past to the present, and of the critical concepts associated with literary study.</p> <p>Their discussion of texts shows depth, independence and insight in response to the tasks set, and they analyse and evaluate the ways in which form, structure and language shape meanings. Where appropriate, candidates identify the influence on texts of the cultural and historical contexts in which they were written.</p> <p>They are able to make significant and productive comparisons between texts which enhance and extend their readings, and are sensitive to the scope of their own and others' interpretations of texts.</p> <p>Their material is well organised and presented, making effective use of textual evidence in support of arguments.</p> <p>Written expression is fluent, well-structured, accurate and precise, and shows confident grasp of appropriate terminology. (Specification p19)</p>	<p><b>Merit</b> Candidates:</p> <ul style="list-style-type: none"> <li>analyse unfamiliar texts perceptively and cogently, selecting relevant conceptual frameworks and demonstrating knowledge of contextual factors or other analytical approaches;</li> <li>make thoughtful and original connections and comparisons between unfamiliar texts and concepts to illuminate meanings and to validate judgements or support hypotheses, drawing on knowledge of texts already studied;</li> <li>discuss literary/ linguistic issues perceptively and reflectively and to argue a point of view convincingly, using well-selected evidence;</li> <li>write in a lively, cogent and convincing style with accuracy and control</li> </ul> <p><b>Distinction</b> Candidates:</p> <ul style="list-style-type: none"> <li>analyse unfamiliar texts in ways which demonstrate critical understanding and insight, using conceptual frameworks, knowledge of contextual factors and other analytical approaches to reach secure and stimulating judgements;</li> <li>make connections and comparisons between texts at different levels, generating sophisticated and convincing readings of the inter-relationships between language, ideas, viewpoints and content;</li> <li>discuss literary/linguistic issues rigorously and elucidate their debates with knowledge, evidence and conviction, arguing a point of view from a coherently constructed position;</li> <li>demonstrate skills of synthesis in writing which is precise, individual and mature in style.</li> </ul>

## **SECTION 4: THE WORK OF THE EXPERT GROUP**

The Expert Group met for a half day to examine and discuss the evidence listed in Appendix 2. The task for the expert group was to determine the size and demand of the AEA's and translate these into tariff points. An account of the work of each group and its findings is set out below.

### **4.1 THE MATHEMATICS GROUP**

#### **Comparison of A level and AEA assessment**

The key differences between A Level and AEA as outlined in the comparison of aims, assessment objectives and grade/performance level descriptions were agreed; this comparison may be found at Appendix A. It was also agreed that assessment of these more advanced skills is achieved through the use of a different style of questioning in the AEA examination. Unstructured questions require candidates to select appropriate strategies without the signposting and direction given in A Level questions. During the meeting this was exemplified by considering the AEA 2003 paper question 3 – if this question were set at A Level it would be split into a number of steps to guide candidates through. AEA questions can also include more complex expressions than would be found at A Level, demanding that candidates be very secure in their ability to manipulate algebraic expressions. Such an example is question 6. Individual AEA questions can also draw on different aspects of mathematics from across the range of content contained in the A Level mathematics specification, for example question 7 in the 2003 AEA paper mixes integration with geometric series, rather than focussing on one topic or idea. Candidates' ability to cope with surprising situations and/or novel problems not met before is also tested.

The AEA paper is considerably longer than any individual A Level paper (three hours compared with one and a half hours) and thus requires rather more sustained working. The time for the AEA paper is intended to allow candidates thinking time, to make false starts, go back and try other strategies, and this was certainly borne out by the scripts inspected.

#### **Use of AEA's by HE admission tutors**

Both HE admission tutors agreed that they could use AEA Merit and Distinction awards to compensate for lower grades in other A Level subjects. For example, A in mathematics, B in a second subject, and B in a third subject with Merit in AEA mathematics, could be regarded as meeting the requirements of AAB for entry to a mathematics course.

#### **AEA entry and pass statistics**

The statistics for AEA entries and grades for 2002 were felt to be very encouraging, particularly the general decrease in AEA grade across decreasing mark bands within A Level grade A. There was some concern expressed about the number of unclassified AEA results and this was felt to be attributable to schools not yet being familiar with the new AEA's and thus entering candidates who had little real prospect of success in the examination and/or to insufficient time being given to candidates to practise working in the style of AEA questions..

These statistics supported the notion that the AEA did indeed differentiate between A Level A grade candidates and also that there was a clear differentiation between Distinction and Merit at AEA.

#### **A Level and AEA candidate scripts**

Inspection of AEA scripts at the bottom and middle of the Merit band, and A level scripts (Unit P3) at the middle and top of the A grade band, suggested that the jump from A grade to Merit was equivalent to a jump from the bottom of grade A to the top. Thus 20 tariff points were suggested for a Merit award.

Inspection of AEA scripts at the bottom of the Distinction band suggested that the jump from a bottom Merit to a bottom Distinction was equivalent also to 20 tariff points and thus 40 points were suggested for a Distinction award. After looking at a range of Distinction scripts it was noted that Distinction candidates tended to make a good attempt at more of the questions than did Merit candidates demonstrating a more consistent performance. False starts were still evident, especially in the lower Distinction scripts, but candidates were more often able to rethink their strategies, start again and produce a solution.

The AEA content is that of the A Level Units P1, P2 and P3 but A level and AEA scripts from the same candidates were not available for A Level Units P1, P2, P3. A Level scripts for Unit P5 and AEA scripts from the same candidates were, however, inspected and this confirmed that the AEA was discriminating between the top A grade A Level candidates.

The Chief Examiners provided a description of an A Level B grade, see Appendix B, and it was then agreed that the differences between grades A and B at A level were in the degree of accuracy and rigour shown by the candidate. This was thought to be equivalent to the difference between Merit and Distinction at AEA. Each examination assessed the same skills and knowledge - A Level in routine problems with some guidance, AEA in non-routine problems with no guidance – and the increase in accuracy and rigour in moving from grade B to grade A in A Level was equivalent to the move from Merit to Distinction in AEA.

Borderline Distinction scripts were again inspected and confirmed the suggestion of 40 tariff points.

## **4.2 THE CHEMISTRY GROUP**

The AEA paper is set using content common to all A-level chemistry specifications or content common to none. Only seven topic areas fall in the former category and these are the simpler ones. Thus setting demanding questions is problematic and this was reflected in the later discussions over the papers where parts of some questions were seen as being of A2 or even AS standard. Question setting and approval is overseen by a range of groups including one drawn from all awarding bodies that check the fairness of the questions being set.

The AEA exam consists of 5 compulsory questions:

- A comprehension and application question
- Physical chemistry

- Inorganic chemistry
- Organic chemistry
- A choice of 1 out of 2 essays

Questions 2, 3 and 4 were designed to test knowledge, understanding and comprehension. Question 5 requires candidates to marshal ideas drawn from across the A Level specification to produce a coherent answer. Across all the papers examined by the expert group, the essay question resulted in the weakest answers, possibly due to its position in the paper so that candidates were answering the question without having left enough time to produce good answers.

Examining and discussing the grading criteria for the AEA and the A level suggested the following major differences between the AEA and the A-level in terms of the increased demand of the AEA examination:

- The capability to cope with the unexpected
- The application of existing knowledge to new situations
- A greater need to synthesise information
- Working out how to apply existing knowledge to solve novel problems

For the 2002 examination the AEA grade boundaries in chemistry were set at:

- Distinction 95/160 (59.5%)
- Merit 75/160 (47%)

After discussing the grading criteria two of the members of the chemistry expert group suggested the allocation of 20 UCAS Tariff Points for Merit and one member suggested 10; and there were suggestions of 20, 30 and 40 UCAS Tariff points for Distinction. The validity of these suggestions was then assessed by examining scripts.

Borderline merit and distinction scripts were compared and the following differences noted:

- merit candidates were typically able to undertake the more complex and unscaffolded calculations in the AEA paper but, unlike the distinction candidates, frequently failed to interpret and comment on the significance of the results of such calculations.
- Distinction candidates provided a better interpretation of a graphical representation of an autocatalytic reaction and a richer account of the chemical principles that produced the experimental data used to construct the graph.
- Merit candidates consistently lost marks compared to the candidates gaining distinctions because of a lack of attention to detail.
- Distinction candidates typically demonstrated greater levels of logic in their answers based upon a sounder understanding of fundamental chemical principles and their inter-relation
- Merit candidates tended to make contradictory statements in their essays indicating a less well developed and coherent knowledge base

However, such differences were not consistently observed between borderline distinction and merit papers. On some questions the merit candidates actually gained more marks than the distinction candidates. The really consistent difference seemed to be that the candidates gaining a borderline distinction were giving more attention to detail and possibly managing their time better in the examination.

The expert group next compared borderline Grade A A-level scripts with borderline merit AEA scripts. The clear difference here was that the borderline A level students needed the additional structural support offered by the A-level paper to complete calculations, they were weaker at synthesising information from different parts of the specification and they were less successful in planning multi-step procedures, than the borderline merit candidates.

These differences were reflected in the distribution of AEA and Merit distinction grades across the three bands of the A grade of the A-level examination in 2002 provided by the QCA's confidential report examining the relationship between A level and AEA grades. Here, of A level candidates falling into the bottom one-third of the A grade band (UMS 480 – 519) and who took the chemistry AEA, only 1% gained distinctions and 19% merits in the AEA. By comparison, of those candidates falling into the middle third of the A grade band (UMS 520 – 559) and taking the AEA, 11% gained distinctions and 30% merits. Finally, of those candidates falling into the top third of the A grade band in Chemistry A level in 2002, and who took the AEA in chemistry, 45% gained distinctions and 37% merits.

In a final discussion, the view expressed by all members of the chemistry expert group was that the distance between an A grade at A level and a merit grade in the AEA chemistry exams was equivalent to the difference between the A and B grades in the A level, i.e. 20 UCAS Tariff points. However, on the basis of the scripts that were examined, the group felt that the difference between a merit and a distinction grade was not as great. Accordingly they recommended that a distinction grade at AEA should attract 30 UCAS tariff points. Furthermore, there was some concern that allowing a distinction grade to attract 40 UCAS Tariff Points would permit compensation of two A level grades, i.e. an AAC candidate with a distinction in the AEA would have the same number of UCAS Tariff points as an AAA candidate.

However, following a final plenary session, the chemistry expert group accepted that the second concern about compensation was not universally felt. Furthermore, it became clear during the discussion that the borderline merit and distinction candidate scripts in chemistry were separated by a much narrower range of marks (12.5%) than the mathematics borderline merit (50%) and distinction (75%) candidates, i.e. 25%. Examining chemistry AEA scripts where candidates had scored more than 110 marks (i.e. more than 69%) it was found that these candidates consistently demonstrated the qualities listed above. Consequently, the chemistry group agreed to a merit grade in the AEA examination attracting 20 UCAS Tariff Points, and the distinction grade attracting 40 UCAS Tariff Points.

### **4.3 THE ENGLISH GROUP**

The English AEA consists of a single three-hour examination, of which up to one hour will be recommended reading time. Candidates are then asked to answer two questions from a choice of up to six.

The examination is designed to be accessible to candidates from any of the three English A levels: Literature, Language, and Language and Literature. There is no prescribed content for study. Instead, the questions will be based on a collection of

quite diverse, unseen reading material which will be centred on a given theme, topic or period. It will typically comprise the following elements:

- Unfamiliar primary texts from different genres and periods, literary and non-literary, drawn from spoken and written language, and selected to facilitate comparisons and connections;
- Some secondary texts linked to the primary reading material by, for example, authorship, context, or specific commentary, and which raise issues of literary or linguistic debate relevant to the interpretation of the primary texts;
- Other secondary materials which demonstrate a range of critical views, theoretical positions and analytical approaches which have the potential to illuminate and challenge way of reading the package as a whole.

The tasks set will enable candidates to select their own route through the material, drawing on either literary or linguistic studies or a combination of both. Where appropriate to the textual material, question styles may include opportunities for candidates to produce their own imaginative or recreative writing.

It was proposed by the OCR Chair of Examiners for English, that, above and beyond the points given to A level grades, AEA candidates should receive an additional 20 points for the Merit grade and 40 points for the Distinction grade. Therefore, the Tariff score of a candidate achieving an A grade at A level and a Merit in AEA would total 140 points while an A grade A level candidate achieving a Distinction at AEA would total 160 points.

After discussing the grading criteria for A level and the performance indicator criteria for AEA together with the QCA subject criteria, and then comparing a number of A level A grade scripts with Merit and Distinction AEA scripts, both the Chair of Examiners for English and the HE representative agreed that the initial proposal of an additional 20 points for Merit and 40 points for Distinction was an accurate reflection of the achievement.

- Merit  
120 points for an A grade are awarded for threshold A grade performance. Awarded performance on totality of the A level, half of which is awarded for AS standard work. AEA English papers have to be more demanding and move beyond synoptic assessment. Therefore a candidate who achieves a Merit standard on the AEA paper is demonstrating high A grade skills in response to very demanding tasks and deserves more points than a candidate who achieves only the threshold A standard across the 6 A level units.

Why 20 points? Merit candidates are demonstrating that they can write with precision, they can engage intelligently with a wide selection of texts and can engage with insight on tasks which are more demanding than A level tasks.

Candidate 6770. In section A the candidate has adopted a relatively straightforward approach and has handled it efficiently and effectively in terms of being able to respond to two passages of unseen material. This answer, on its own would be mid A grade material but the second essay - section B - demonstrates an ability to engage with complex ideas that were unfamiliar to the candidate before she read them in the exam paper and to explore these ideas with a high degree of

clarity in relation to an interesting range of texts from her own experience. The second task is a task which is considerably more demanding than a synoptic task at A Level and it demonstrates precisely the qualities of synthesis, precision and insight set out by the AEA specification.

- **Distinction**

Candidates who achieve Distinction are likely to demonstrate not only precision but also conviction, to engage not only intelligently but also creatively and to work not only with insight but also with originality. And we see this in a Distinction script in the way in which the candidates have responded under severe time constraint to highly challenging tasks.

Why 40 points? In section A, candidate 5574 (an English Language and Literature student) adopted an approach to two non literary texts which was highly organised, very well sustained and which made complex connections in a mature style. In section B, the candidate adapted a passage of 19<sup>th</sup> century prose into a formally exact sonnet and followed that with an analysis which was illuminating, both of the original material and of the linguistic features of transposition. This was a task and a level of attainment well beyond that of the top of A grade A level standard (as far above threshold A as threshold A is above threshold C).

## **SECTION 5: ALLOCATING UCAS TARIFF POINTS TO THE AEA**

At the final plenary session, the three subject groups reported and there was agreement to recommend that a Merit grade should attract 20 UCAS Tariff Points and a Distinction Grade 40 UCAS Tariff Points.

**CURRICULA VITAE OF EXPERT GROUP MEMBERS**

**Chemistry Group:**

AQA Chief Examiner for Chemistry	Dr Colin Chambers
HE Representative	Dr Terry Kee
HE Representative	Dr Andrew Maczek

**English Group:**

OCR Chair of Examiners for English	Mr Adrian Barlow
HE Representative	Dr Tracey Hargreaves

**Mathematics Group:**

Edexcel Principal Examiner AEA	Mr Greg Attwood
Edexcel Chief Examiner, A level Pure Mathematics	Dr Dave Wilkins
HE Representative	Dr Mario Micallef
HE Representative	Dr Maria Zatorska

## CURRICULUM VITAE

Name: Dr Colin Chambers

Date of Birth: 28<sup>th</sup> February 1938

Education: 1957 – 1964 University of Liverpool

Qualifications: 1961 BSc Chemistry  
1964 PhD  
1986 FRSC CChem

Employment: 1964 – 1969 Assistant Master, Birkenhead School  
1969 – 1999 Head of Chemistry, Bolton School  
Head of Science  
Director of Science Studies  
1999 – date Educational Consultant  
1969 – date Examiner JMB; NEAB; AQA. Posts held:  
Principal Examiner Chemistry Special Paper  
Principal Examiner Chemistry Options Paper  
Principal Examiner, Modular A level  
Chief Examiner A level Chemistry  
1984 – date Chair of A level Syllabus Development

Additional Activities:  
1976 – 1992 National Co-ordinator RSC Industry study Tours  
1970 – 1986 Secretary/Chair RSC Curriculum Subject Group  
2001 – 2003 President of Education Division of RSC  
1990 – 1997 Chair, NE/NW Standing Committee for Science

Publications: 1975 Inorganic Chemistry, Butterworths  
1995 NEAB Syllabus support material, CH02  
2001 AQA Specification support materials  
2001 Editor, Collins Advanced Modular Sciences,  
Chemistry AS and A2

Awards: 1985 RSC Award in Chemical Education  
1989 University of Liverpool Potts Medal  
1994 Salters Prize

## CURRICULUM VITAE

**Name:** Terence Phillip Kee

**Date of Birth:** 21-10-63

**Education:**

1985	BSc (1st Hons) Chemistry, University of Durham
1989	PhD Chemistry, University of Durham

**Qualifications:** BSc, PhD, CChem, MRSC

**Employment:**

1989-1990	NATO Postdoctoral Fellow, Massachusetts Institute of Technology, USA
1990	Lecturer, University of Leeds
1997	Senior Lecturer, University of Leeds

## CURRICULUM VITAE

*Name:* Maczek, Andrew Oswald Stanley

*Date of birth:* 28-02-1937

*Qualifications:* MA(Oxon), DPhil, CChem, FRSC

*Education:*

1950-55	Ampleforth College, York
1955-61	Postmaster, Merton College, Oxford
1959	BA(Chemistry) Class II
1963	DPhil

*Employment:*

1961-64	Demonstrator, Chemistry, University of Leeds
1964-66	Salters Company Fellow, Chemistry, University of Leeds
1966-68	SRC Fellow, Chemistry, University of Leeds
1968-96	Lecturer/Senior Lecturer, Chemistry, University of Sheffield
1969-89	Part-time Tutor Counsellor and Course Tutor, Open University
1985-date	Senior Admissions Tutor, Chemistry, University of Sheffield
1970-date	Examiner A-Level Chemistry, JMB/NEAB/AQA
1983-96	Principal Examiner, Chemistry Special Paper, JMB/NEAB
1996-2001	Principal Examiner, Chemistry Modular, NEAB/AQA

*External:*

1989-92	University Representative UCCA Council of Management, Member of Panel on offers
---------	---

*Educational Publications:*

1995	NEAB Chemistry Syllabus Support Materials – <i>Unit CH04</i>
1998	OUP Primers – <i>Statistical Thermodynamics</i>
2001	Student Support Materials, AQA A2 Chemistry – <i>Modules 4&amp;5</i>

## ADRIAN EDWARD BARLOW: *Curriculum Vitae*

---

**Date of Birth:** 16.9.49 **e-mail:** barlow.a@ocr.org.uk

**Education:** 1963-1967: St. John's School, Leatherhead  
1968-1973: University College, Durham

### **Academic and Professional Qualifications**

1971 BA (2.1) English Language and Literature  
1972 PGCEd (Distinction)  
1975 MA (Durham)

### **Current Employment**

Staff Chair of Examiners, OCR (since October 2000); responsible for standards in English and Classics subjects at GCSE and GCE; also for AEA development within OCR; lead trainer and course director, OCR senior examiners' professional development programmes.

### **Teaching experience**

1973-1983 Bedford School  
1983 -1997 Monmouth School: Head of English (1983-1990);  
Director of Studies (1988-1997).  
1998- Part-time Tutor in Literature, University of Cambridge Institute of Continuing Education; acting Staff Tutor, 2004

### **Examining experience with UCLES and OCR (and QCA consultancy):**

*Chief Examiner*, A level English Literature (1993-2001)  
*OCR Team Leader*, responsible for A Level Syllabus Development in English Literature, English Language and English Language & Literature.  
*Chair of Examiners* in English (UODLE and OCSEB Legacy syllabuses).  
AEA trial English (2000 and 2001) lead developer for QCA. UK Awarding Bodies Representative, Common English Forum (2001- ); member QCA AEA Advisory Group (2002-).

### **Publications**

1993: *The Calling of Kindred* (C.U.P)  
1995: *Six Poets of the Great War* (C.U.P)  
1998: *Robert Frost: Selected Poems* (O.U.P)  
1999: (ongoing) series editor, 'Cambridge Contexts in Literature' (C.U.P)  
2000: *The Great War in British Literature* (C.U.P)

### **Recent Lectures and Reviews:**

2002: 'Reading the Great War in Context', Imperial War Museum  
2000- articles on AS/A level English, on the new A levels and their implications for HE, on the Advanced Extension Award, in *The English Review*, *English & Media*, *English Association Journal*.  
2003: 'A level English Literature in Context', English Association conference, Oxford  
2003: 'Too tall? Jane Austen, close reading and context' *E-magazine*  
2004: 'On the Watch in Shakespeare: questions of context', in *Use of English*

## Gregory Brian Attwood

Telephone: (01283) 702804

e-mail: [gregruthattwood@onetel.net.uk](mailto:gregruthattwood@onetel.net.uk)

**Date of Birth:** 01/04/1955

---

### EDUCATION

<b>School:</b>	Worthing High School for Boys	1966-1973
<b>University:</b>	Durham (St. John's College)	1973-1977
	University of Sheffield	1977-1978
<b>Qualifications:</b>	B.A. (2.1) Mathematics	(Durham)
	PGCE Maths and RS	(Durham)
	M.Sc. Statistics	(Sheffield)

---

### EMPLOYMENT

<b>Repton School:</b>	Assistant master (mathematics)	1978-
	Head of Community Service	1987-1989
	Head of Mathematics	1989-1994
	i/c School Timetable	1992-1994
	Housemaster	1995-2001
	Director of General Studies	2002-
<b>Other:</b>	Principal/Chief Examiner in A level Maths	1991-
	SCAA working party on calculators	1994-1995
	SCAA/QCA scrutinies of Exam boards	1996-1998
	QCA pilot of AEA examination	
2000&2001	QCA A level vs IB comparability study	
2001&2003	QCA Tomlinson phase 2 (grade descriptors)	2002-2003
	INSET provision for teachers & students	1993-
	Author of Mathematics Textbooks (Heinemann)	1994-

---

### PROFESSIONAL MEMBERSHIPS

Fellow of The Institute of Mathematics and its Applications (FIMA & C.Math)  
Member of The Mathematical Association

David C. Wilkins

After having been in full time teaching (Secondary Mathematics) until 1999, I was appointed by Edexcel as Chief Examiner in Pure Mathematics, and have therefore been involved in the launch and subsequent development of “Curriculum 2000”.

My role as Chief Examiner has included participation in regular feedback meetings for teachers, giving the opportunity for direct discussion of issues of concern.

Date of Birth:	18.07.46	
Education:	1964-67	University of Hull B.Sc. in Mathematics
	1967-68	University of Birmingham P.G.C.E.
	1985-86	University of Reading M.Sc. in Mathematical Education
Recent Employment:	1990-94	Waltham Toll Bar School, Grimsby Head of Mathematics
	1994-99	Batley Grammar School, West Yorkshire Head of Mathematics
	1990-94	London Examinations Principal Examiner (Pure Maths/Mechanics)
	1999-	Edexcel (London) Chief Examiner (Pure Mathematics)

## **CURRICULUM VITAE - DR. MARIA BARBARA ZATURSKA**

### **Date of Birth**

09.07.1943

### **Education**

1954 -1961 Convent of the Sacred Heart High School, Hammersmith

1961-1964 Undergraduate student at Imperial College, London

1964-1967 Postgraduate student at Imperial College, London

### **Appointment held**

Aug.1967- Assistant Lecturer in Mathematics, then Lecturer, now Senior Lecturer, University of Bristol

Part-time Tutor for the Open University for one year (mid 1970s)

(Since Feb 2003, I have been on the Board of Governors of St. Ursula's School, Bristol.)

### **Academic Qualifications**

1964 B.Sc.(Hons.) First Class in Mathematics, University of London.  
A.R.C.S.(Associate of the Royal College of Science)

Feb.1968 Ph.D. awarded and D.I.C.(Diploma of Imperial College).

## **EVIDENCE EXAMINED FROM GCE A LEVEL AND ADVANCED EXTENSION AWARDS**

### **Syllabuses and specifications**

#### *GCE Specifications:*

AQA Chemistry, 2005  
OCR English Language, 2003  
Edexcel Mathematics, 2000

#### *Advanced Extension Award Specifications:*

AQA Chemistry, 2003  
OCR English, 2003  
Edexcel Mathematics, 2003

### **Examination papers and marking schemes**

#### *GCE A level documents:*

Chemistry paper and marking scheme, 2003  
English Language paper and marking scheme, 2003  
Mathematics paper and marking scheme, 2003

#### *AEA documents:*

Chemistry paper and marking scheme, 2003  
English paper and marking scheme, 2003  
Mathematics paper and marking scheme, 2003

### **Candidate materials**

A selection of candidate scripts from all of the above examinations was available for scrutiny.

### **Additional material**

Grade descriptors for B grade at GCE A level, written by the Chief Examiner or Chair of Examiners for each of the three subjects - Chemistry, English and Mathematics.  
QCA A2 English Performance Descriptions  
QCA Analysis of data matching A level and AEA grades for candidates in summer 2002