Department for Education

# Reformed GCSE and A level subject content consultation

## Government consultation

**Launch date 16 July 2015**
**Respond by 24 September 2015**

# Contents

# Introduction

This consultation asks for views on reformed subject content for a number of GCSE, AS and A level subjects which will be first taught in schools from 2017.

## Who this is for

- schools, including academies, colleges and further education institutions
- teachers, and organisations representing school teachers and lecturers
- subject associations
- parents and young people
- higher education
- employers/business sector
- local authorities
- awarding organisations

## Issue date

The consultation was issued on 16 July 2015.

## Enquiries

If your enquiry is related to the policy content of the consultation you can contact the team on:

- 0370 000 2288 and ask for Bethany Caines

or email:

2017GCSEsandAlevels.consultation@education.gsi.gov.uk

If your enquiry is related to the DfE e-consultation website or the consultation process in general, you can contact the DfE Ministerial and Public Communications Division by email: consultation.unit@education.gsi.gov.uk or by telephone: 0370 000 2288 or via the DfE Contact us page.

## Additional copies

Additional copies are available electronically and can be downloaded from GOV.UK DfE consultations.

## The response

The results of the consultation and the department's response will be published on GOV.UK in the Winter of 2015.

# About this consultation

The government is reforming GCSEs and A levels to ensure that they better prepare students for further and higher education, and for employment. GCSEs are being reformed so that they set expectations which match those of the highest performing countries. The new A levels will be linear qualifications and ensure that students are better prepared to progress to undergraduate study.

Reforms to GCSE and A level qualifications are already underway. New GCSEs, AS and A levels will start to be taught from September 2015 in some subjects, and further subjects will be taught from September 2016[1]. Revised content for these subjects has been published by the department.

Content is now being developed for a further set of GCSEs, AS and A levels to be taught from 2017. This consultation seeks views on draft content for some of the GCSE, AS and A level subjects to be taught from 2017, specifically:

- GCSEs in astronomy, business, economics, engineering, geology, psychology and sociology.
- AS and A level design and technology, environmental science, history of art, music technology and philosophy.

Awarding organisations are continuing work to develop the content for the remaining subjects, and an additional consultation will be published this autumn.

There is also a separate consultation currently open on content for design and technology GCSE, which is another subject that will be taught from 2017.

The proposed subject content requirements are designed to become regulatory documents, which set out the minimum knowledge, understanding and skills needed for GCSE and A level qualifications. They provide the framework for awarding organisations to create the detail of qualification specifications.

Whilst responsibility for specifying the subject content of GCSEs and A levels lies with the department, responsibility for determining the assessment arrangements lies with Ofqual, the independent regulator. Ofqual is therefore consulting in parallel on GCSE and A level assessment arrangements for these subjects, including the assessment objectives. In order to understand how students will be expected to engage with these

[1] See “Background and context of the consultation” below for further information about the reforms to date.

subjects it is important to consider both the content and the assessment objectives. Ofqual's consultation can be found on their website.

We would like to hear your views on our proposals.

## Respond online

To help us analyse the responses please use the online system wherever possible. Visit www.education.gov.uk/consultations to submit your response.

### Other ways to respond

If for exceptional reasons, you are unable to use the online system, for example because you use specialist accessibility software that is not compatible with the system, you may download a word document version of the form and email it or post it.

#### By email

- 2017GCSEsandAlevels.consultation@education.gsi.gov.uk

#### By post

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## Deadline

The consultation closes at 17.00 on 24 September 2015.

# Background and context of the consultation

## GCSE reform

The primary purpose of GCSEs is to evidence the progress and achievement of students of all abilities against demanding and fulfilling subject content. GCSEs must also enable progression to further vocational and academic study.

GCSEs are being reformed so that they set expectations which match those of the highest performing countries, with rigorous assessment that provides a reliable measure of students' achievement.

New GCSEs will remain universal qualifications which are accessible, with good teaching, to the same proportion of students currently sitting GCSEs at the end of key stage 4. At the level of a "good pass" (currently indicated by a grade C) there will be an increase in demand, to reflect that of high-performing jurisdictions. At the top end, the new qualifications should prepare students properly to progress to A level or other study.

## The GCSE reform process to date

The department consulted widely with subject experts, education experts, schools and teachers to develop the content for reformed GCSEs in English Baccalaureate (EBacc) subjects. We published GCSE subject content in English language, English literature and mathematics in November 2013, for first teaching from September 2015. We then published GCSE subject content in ancient languages, history, geography, science, and modern foreign languages in April 2014, for first teaching from September 2016.

The Secretary of State announced the second stage of GCSE reform in April 2014. GCSEs in art and design, citizenship studies, computer science, dance, design and technology, drama, music, physical education, and religious studies will be reformed for first teaching in schools from September 2016. We published subject content for art and design, computer science, dance, music, and physical education in January 2015, and citizenship studies and drama in February 2015.

The department is also currently consulting on revised content for design and technology GCSE for first teaching in 2017.

## A level reform

The primary purpose of A levels is to prepare students for undergraduate study. The purpose of AS qualifications is to enable students to broaden the range of subjects they study post-16, and to support progression to further study or employment. Reforms to

AS and A levels are intended to ensure that they continue to meet this purpose, and in particular, to respond to concerns from higher education institutions that students lack some of the skills necessary for undergraduate success[2]. The new A levels will be linear, and as the first new A levels become linear from 2015, the AS will be entirely decoupled from the A level, so that the marks do not count towards the final A level grade. This change will allow more time for teaching and for students to develop a deep understanding of their subject. The process for reform gives universities a greater role in the design and development of the new qualifications.

## The A level reform process to date

A review of A level subject content was conducted between April and July 2013 by the four awarding organisations for A levels in England. The review was independently chaired by Professor Mark E. Smith, Vice Chancellor of Lancaster University. As a result of this review subject content in art and design, biology, business, chemistry, computer science, economics, English language, English literature, English language and literature, history, physics, psychology, and sociology was published in April 2014. These new A levels will be taught from September 2015.

Responsibility for reviewing subject content for the remaining facilitating subjects, modern foreign languages, ancient languages, mathematics, further mathematics, and geography was remitted to a new independent body, the A level Content Advisory Board (ALCAB). ALCAB provided recommendations on these subjects and we consulted on them from July to September 2014. Content in these subjects was published in December 2014. These subjects, excluding mathematics and further mathematics will be first taught in schools from September 2016. Mathematics and further mathematics A level will be first taught in schools from September 2017: this decision was taken on the advice of ALCAB who recommended that the first cohort to study the reformed A level should have studied the reformed GCSE.

In April 2014, the Secretary of State announced that a further set of A levels would be reformed for first teaching from September 2016. Reformed A level subject content for dance, music, and physical education was published in January 2015, and for drama and theatre, and religious studies in February 2015. Design and technology A level had previously been included in this list, but as a result of the degree of change being proposed for GCSE design and technology, and the need to ensure that the AS and A

[2] 2012 Ipsos MORI Social Research Institute, Fit for Purpose? The view of the higher education sector, teachers and employers on the suitability of A levels, http://www.ofqual.gov.uk/files/2012-04-03-fit-for-purpose-a-levels.pdf;
Cambridge Assessment, What are the impacts of qualifications for 16 to 19 year olds on higher education? A survey of 633 university lecturers, http://www.cambridgeassessment.org.uk/images/116010-cambridge-assessment-he-research-survey-of-lecturers-executive-summary.pdf.

level ensure progression from the GCSE, subject content for AS and A level design and technology is being developed for first teaching in 2017. As with the GCSE in this subject, the department is leading on the development of content for design and technology A level.

## The reform process for subjects to be first taught in schools from 2017

Content is now being developed for a further set of GCSEs, AS and A levels to be taught from 2017. This follows work already conducted by Ofqual, including a consultation on the final phase of reform, the results of which were published in December 2014. Ofqual has already announced that any subject not reformed for first teaching in 2015 or 2016 must either be withdrawn from 2017 or be reformed for first teaching in 2017. Ofqual and the department are currently considering the process for any new qualifications that AOs may wish to propose for introduction in the future.

Following this consultation Ofqual confirmed a set of principles, which they would apply to existing and new subjects alike, to determine whether it would be appropriate to develop core content in any particular subject. Ofqual then invited awarding organisations to submit proposals for subjects they wanted to reform for 2017. In May 2015 Ofqual completed their review of the subjects for which awarding organisations submitted proposals, and decided that the following subjects would go forward to the next stage of content development, as detailed in the table below:

| GCSE subjects | AS and A level subjects |
|---|---|
| Ancient history | Accounting |
| Astronomy | Ancient history |
| Business | Archaeology |
| Classical civilisation | Classical civilisation |
| Economics | Creative writing |
| Electronics | Electronics |
| Engineering | Environmental science |
| Film studies | Film studies |
| Geology | General studies |
| Information and communications technology | Geology |
| Media studies | Government and politics |
| Psychology | Health and social care |
| Sociology | History of art |
| Statistics | Information and communications technology |
| | Law |
| | Media studies |
| | Music technology |
| | Philosophy |
| | Statistics |

Awarding organisations have worked with subject associations, subject experts and, for A levels in particular, representatives from higher education institutions, to develop the subject content for the subjects included in this consultation. As part of the development process awarding organisations were required to:

- at A level, actively involve subject experts, including higher education representatives, in the development of content to ensure that the proposed content facilitates progression to higher education and builds upon the revised GCSE content;
- at GCSE, ensure that the proposed content for GCSEs increases the level of demand, and is sufficiently robust and challenging;
- develop content that will result in rigorous academic qualifications appropriate for GCSE or A level study;
- develop content that will meet Ofqual's confirmed set of principles; and
- work with Ofqual to ensure that the content can be regulated.

During development of subject content, it has become clear that for one subject, AS and A level general studies, it has not been possible to draft subject content in accordance with the department's guidance and Ofqual's principles for reformed AS and A levels. As a result general studies AS and A level will not be available for teaching in 2017, and will not be consulted upon.

This consultation seeks views on proposed reformed content in the following subjects:

- GCSEs in astronomy, business, economics, engineering, geology, psychology and sociology.
- AS and A levels in design and technology, environmental science, history of art, music technology and philosophy.

The organisations consulted for these subjects are listed at annex 1.

Awarding organisations are continuing work to develop the content for the remaining subjects, and where content for a subject is developed to meet Ofqual principles and the department's guidance, it will be included in a consultation to be published in Autumn 2015.

# Proposed new subject content for GCSEs

## Consultation questions

1. Is the revised GCSE content in each of these subjects appropriate? Please consider:

    - whether there is a suitable level of challenge
    - whether the content reflects what students need to know in order to progress to further academic and vocational education
    - whether the amount of content in the qualification is appropriate and, if not, whether you have any suggestions for removing or adding content

    Please provide evidence to support your response:

    (a) Astronomy

    (b) Business

    (c) Economics

    (d) Engineering

    (e) Geology

    (f) Psychology

    (g) Sociology

## Proposal and rationale for GCSE subjects

This section outlines the key proposed changes to current GCSE subject content. The full subject content can be downloaded from the consultation page on GOV.UK.

### Astronomy GCSE

The new content for GCSE astronomy increases the depth and demand of the qualification by expanding some of the current core topics, for example, by including new requirements on tides, longitude, gravity, evolution of stars, and theories of the cosmos. The content has also been brought up to date, for example by including knowledge and understanding related to observational technology and satellites.

The new content maintains the focus on observational skills valued by subject experts: it requires students to undertake two observational activities, both aided (binoculars,

telescopes or robotic telescopes) and unaided, and requires that 20% of marks in the exam must be on questions drawing on the knowledge and understanding students have gained from observational work.

The new content also represents an increase in demand in terms of the mathematical knowledge required. The new content now includes, for each area of knowledge, the specific mathematical concepts that students must understand and use. There is also a greater emphasis on the collection and analysis of data sets, which stakeholders felt was essential for progression within astronomy.

## Business GCSE

The content for GCSE business has been strengthened in terms of the core knowledge and skills that all students must develop. For example, there is a clearer focus on the overall purpose of businesses, on how the different parts of a business work together, and on how business decisions are made. Students will be required to apply their knowledge to different business contexts (from small enterprises to large multinationals) and understand business behaviour in these contexts.

Demand has also been increased by adding depth and breadth to key areas. For example, all students will be required to know and understand business growth, and how and why businesses have different organisational structures. Students will be expected to understand how to use specific quantitative skills in applying data to business decisions and 10% of the marks for the qualification will be allocated to this.

Requirements have also been updated to cover the use of technology including e-commerce and social media. As suggested by stakeholders, including teachers, the GCSE requires an understanding of entrepreneurial activities, and of business growth and development.

AOS have proposed changng the name from business studies to business to better reflect the subject content.

## Economics GCSE

The content for GCSE economics has been significantly strengthened, with substantial additions to core knowledge requirements to increase demand. All students will now be required to understand more of the essential concepts of economics. Depth and breadth have been increased, for example, by requiring students to understand movements along, and shifts in, supply and demand curves; and by adding new topics including economies of scale. The content is further strengthened by the introduction of detailed requirements for specific quantitative skills and 10% of the total marks in the qualification will now be allocated to this.

The new GCSE will focus clearly on economics as a social science which explores global processes and problems, rather than students approaching the subject from their

own personal perspectives. The content emphasises a more academic approach, requiring that students think critically and weigh up alternatives, and build logical economic arguments based on a framework of economic concepts, using appropriate economic terminology.

## Engineering GCSE

Content for revised GCSE engineering has an increased level of demand through a greater emphasis on systems-related content. This includes mechanical systems and their application within engineering scenarios; electrical/electronic/programmable systems; and the requirement for students to have knowledge and understanding of structure.

A detailed section on testing and investigation has been introduced which includes a significant amount of demanding content not covered in the current criteria. For example, the requirement for an understanding of destructive and non-destructive testing, and predicting performance through calculations, simulations and modelling, either manually or with Computer Aided Design (CAD). Content relating to the design process has been reduced following concerns raised by stakeholders that it provided too much overlap with design and technology GCSE. The emphasis is now on the technical requirements needed to produce detailed engineering drawings or schematics, and to produce a functioning product.

The inclusion of new and demanding mathematical knowledge will also increase the level of demand, with much greater detail on where mathematical principles need to be applied. For example, the use of Ohm’s law, and resistance in series and parallel when building circuits.

Students are still required to carry out a design and make project, but the emphasis is now clearly on responding to a given brief, both to ensure less overlap with other subjects and to reflect real-world engineering practice.

## Geology GCSE

The demand of this subject has been increased from the current qualification by the requirement to study greater numbers of minerals, rock types and fossil groups; the inclusion of a new section on planetary geology; and by ensuring a more in-depth understanding of the nature of the Earth's structure, and aspects of the carbon cycle that are unique to geology.

Students will now need to study the characteristics of a minimum of four igneous rocks and four sedimentary rocks; they will need to have knowledge and understanding of the morphology of a minimum of three fossil groups, and of modern reptiles and birds. The new section relating to planetary geology will include comparisons of Earth and its planetary neighbours, meteoric evidence for the composition of the Earth, and will require the use of space imagery and other exploration data.

The new content requires more in-depth understanding of mathematical knowledge and skills, including the use of equations for calculations (for example ratio, percentage and speed), graphical methods for data analysis and interpretation, and 3D visualisation – 10% of the marks will be allocated to this.

The content still requires students to undertake laboratory and fieldwork as part of the qualification and the content sets out the skills developed through this work which will be assessed as 15% of the total qualification.

## Psychology GCSE

The psychology GCSE has been revised, in the light of feedback from subject experts, to ensure that students have a detailed knowledge of five core areas of psychology (social, cognitive, biological, developmental and individual differences) and also research methods. To cover these areas and understand their inter-relationships, and to increase demand, students will study five compulsory topics and two optional topics. In light of feedback from subject experts, the content requires students to know and understand specific debates within psychology, including 'psychology as a science' and 'nature/nurture'.

To further increase depth and demand, students will also be required to study and critically evaluate two specific theories/explanations, set out in the content, for each topic except neuropsychology. Subject experts consider that basic knowledge of neuropsychology is sufficient for GCSE, and a specific requirement to study particular theories/explanations would be excessively demanding, given the particular complexity of this topic.

The depth of study required for research methods has increased with more emphasis on complex skills, and this now represents 20% of the overall qualification, responding to stakeholders' view that research is fundamental to the subject. There is also a new requirement to study mathematical and statistical skills.

## Sociology GCSE

The new subject content increases the level of demand and reflects the recent changes to the sociology A level content, drawing on advice from higher education and subject experts. The revised subject content, in response to stakeholders' input, now includes more detail, including on the sociological approach, social inequality, social control and power, social structures and institutions, social processes and sociological research. For example, for the first time, as part of the sociological approach all students will be expected to understand key theories and approaches to the study of society, including structuralist approaches, interactionist approaches, consensus theories and conflict theories. In studying the topics above, students will also be required to know and understand the ideas of key sociological theorists. The range of topics included in content are those considered fundamental to stakeholders. This additional content

increases the demand of the subject by providing more breadth and depth, and the inclusion of sociological topics of greater complexity.

The impact of globalisation and the application of sociological theory have also been included in response to stakeholder views, which increases the demand of the subject and improves progression to the new reformed sociology AS and A level.

# Proposed new subject content for AS and A levels

## Consultation questions

1. Is the revised AS and A level content in each of these subjects appropriate? Please consider:

    - whether the content reflects what students need to know in order to progress to undergraduate study

Please provide evidence to support your response.

(a) Design and technology

(b) Environmental Science

(c) History of art

(d) Music technology

(e) Philosophy

## Proposal and rationale for AS and A level subjects

This section outlines the proposed changes to current AS and A level subject content. The full subject content can be downloaded from the consultation page on GOV.UK.

### Design and technology AS and A level

The new design and technology A level retains a specialist focus with separate endorsements, but, responding to feedback from subject experts, these have been consolidated to: engineering, product design, and fashion design and development. These endorsements are all linked to design disciplines that reflect possible higher education routes and industry.

To provide progression from the new GCSE content for design and technology, all students are now required to develop a core breadth of knowledge of materials, techniques, equipment and processes, with a focus on students being able to identify market needs for new products and initiate and develop design solutions. There is greater focus on knowing and understanding materials and processes in order to choose the right solution to address the design need. Students will then study these in greater depth within their chosen endorsement. Building on the GCSE, students will develop in-depth knowledge and understanding of the iterative design processes that are at the core of contemporary design practice. Following feedback from higher education design students, the A level includes a stronger focus on how to communicate their design ideas, using sketching and computer-aided design. In light of

feedback from higher education, students will be required to develop knowledge and experience of real world contexts for design and technological activity.

Students will still be required to undertake a substantial design and make task at A level, building on the knowledge set out above.

Food technology has been removed as an endorsed route within design and technology, as feedback from higher education practitioners and subject experts indicated that it did not fit comfortably within this subject. We have decided not to develop a separate food A level, as we have done at GCSE. There are already a number of high-quality vocational qualifications available post-16 in food-related subjects, including those with a focus on food nutrition. For those students wanting to progress to a career in food, there are career-specific vocational qualifications, for example in confectionary/butchery. For students wishing to progress to a degree in food nutrition or food science, top universities offering food science/nutrition related courses have told us they are looking for students with science qualifications for entry to their courses, rather than food-related A levels.

## Environmental science AS and A level

The content for environmental science A level has been brought into alignment with content for other new science A levels to better prepare students for higher education. This is reflected in the name change from environmental studies to environmental science. There is an increased focus on ensuring that students know and understand the science behind different environmental issues and topics: for example, students will explore and evaluate scientific ideas and evidence underpinning explanations of how humans and other species interact with their environment, and the different causes and effects of environmental change. On the advice of subject experts, the content builds upon and develops the knowledge and understanding in GCSE science subjects. For example, students are required to understand topics like conditions for life on earth, biodiversity, and different sources of energy in much greater depth.

As in other science A levels, students will also be required to use theories, models and ideas to pose scientific questions, define scientific problems, present scientific arguments, and develop scientific explanations of environmental processes. They will also be expected to undertake experimental and investigative activities; evaluate methodology, evidence and data; and know understand how to use a wide range of experimental and practical instruments, equipment and techniques.

The mathematic skills have been increased and set out in detail in the appendix, and as with biology and psychology, the assessment of quantitative skills will include at least 10% mathematical skills (at level 2 or above). Content will also require that students have the opportunity to undertake practical work to develop practical skills.

## History of art AS and A level

The new content includes clear expectations around the number of works of art, artists and periods students must study, ensuring that all students have a good breadth and depth of study by the end of the course. Students will be required to study the work of at least eight different artists, and a minimum of 24 works of art (12 at AS) from at least six periods or movements (three at AS), including movements both before and after 1850. This will ensure that students are familiar with a range of art from different artists and movements, both modern and pre-1850.

Students will study developments in art and connections between movements/periods (before and after 1850) in the context of two specified themes (one at AS) such as religion or technology, as well studying two specific art historical movement/period in depth (one at AS). This will secure better breadth and depth of knowledge and understanding, which will support progression to higher education. In response to feedback from higher education subject experts about the importance of critical engagement with art, A level students will also be expected to engage with at least four critical texts – relevant to four specified artists – to develop their knowledge and understanding of how these artists' works have been critically interpreted and analysed by others, including art historians.

## Music technology AS and A level

The new subject content is focused on the knowledge and skills which relate solely to music technology, with the removal of shared content that overlapped with the already reformed music A level. For example, based on feedback from stakeholders, there is a new requirement for students to know and understand the history and development of recording and production techniques from the 1950s. Students will still need to demonstrate their skills in using music technology to capture, manipulate, create and refine sounds.

New skills specific to music technology have been added, including developing as a music producer and sound engineer, including quantitative skills. This means the rigour of the qualification will be enhanced, and provide students with advanced skills that will help to prepare students for degree level courses in this subject. For example, students will need to show a more in-depth understanding of the principles of music technology, including bringing knowledge of the physics of sound to bear on their use of technology. They will also need to use data, such as graphical representations and diagrams related to frequency response, to make decisions about equipment.

## Philosophy AS and A level

The new subject content for A level philosophy builds upon the existing qualification and draws on advice from higher education and subject experts. It has been designed to enable students to gain a thorough grounding in key philosophical concepts through asking philosophical questions, exploring and critically engaging with ideas, and

criticising and reinterpreting the arguments of philosophers. The new AS content will provide an introduction to the subject, through the study of epistemology and the metaphysics of God. In addition A level students will also study moral philosophy and the metaphysics of mind. The minimum required philosophical texts appropriate to the areas of knowledge and understanding in the subject content are now set out.

The content has been designed around particular philosophical arguments that lend themselves to providing a focus on the nature of philosophical analysis (conceptual analysis and argument-analysis) and argument-generation. Feedback from subject experts was that this focus would reflect the aims and learning objectives in the subject benchmarks for degree level courses and better prepare students for progression to higher education study in philosophy and related subjects.

# Annex 1 - Subject experts consulted by awarding organisations in the development of proposed subject content

Subject experts were consulted as part of the subject content development process including representatives from the following organisations:

**Astronomy GCSE:** Royal Astronomical Society; British Interplanetary Society; and Faulkes Telescope Project.

**Business GCSE:** The Economics, Business and Enterprise Association (EBEA); The Chartered Institute of Personnel and Development (CIPD); The Chartered Institute of Marketing (CIM); The Chartered Institute of Procurement & Supply (CIPS); Federation of Small Businesses; Walthamstow School for Girls; Belvedere Academy; Darrick Wood School; Coloma Convent Girls' School; Abbey College Cambridge; Arden Academy; Stuart Bathurst Catholic High School; Skinners' Academy; Tonyrefail School; Upton-by-Chester High School; Edgbarrow School; The National Church of England Academy; and Cwmtawe Community School.

**Economics GCSE:** Royal Economic Society; CIMA; Institute of Economic Affairs; the Economics, Business and Enterprise Association (EBEA); Young Enterprise, includes Personal Finance Education Group; Institute of Financial Services; Institute for Financial Studies; New Economics Foundation; Bank of England; Coloma School; Beale School; Queen Elizabeth School, Barnet; King Edward IV, Southampton; and Reading School.

**Engineering GCSE:** Design and Technology Association (DATA); Dyson Foundation; Royal Academy of Engineering (RAE); Institute of Engineering and Technology (IET); F1 in Schools; The Science, Engineering, Manufacturing and Technologies Alliance (SEMTA); The Association for Instrumentation, Control, Automation and Laboratory Technology – representing the UK Electronics Alliance; Apple; BAE systems; VEX Robotics (UK & Ireland); and Siemens.

**Geology GCSE:** Maersk Oil; Geologists' Association; Geological Society; Amman Valley school; and Whitchurch School.

**Psychology GCSE:** Association for the Teaching of Psychology (ATP); British Psychological Society (BPS); Varndean College; and Helenswood Academy.

**Sociology GCSE:** The Belvedere Academy, Liverpool; Hayes School, Bromley; Oxsted School, Surrey; Littlehampton Academy, West Sussex; British Sociological Association; and The Heads and Professors of Sociology Group.

**Design and technology A level:** Design and Technology Association (DATA); James Dyson Foundation; Royal Academy of Engineering; Sinclair Consultancy (textiles); Institute of Engineering and Technology (IET); Thrybergh Academy; The King's

Academy; Silcoates School; Chipping Campden School; East Barnet School; City of London School for Girls; Lancaster Royal Grammar School; Merchant Taylors' Boys' School; Ashby School; and The King's School.

**Environmental science A level:** The Institution of Environmental Sciences; The Chartered Institute of Ecology and Environmental Management (CIEEM); Field Studies Council; Ellen MacArthur Foundation; Exeter College; Parton Peveril College; Peter Symonds College; Farnborough College; Itchen College; and Brighton and Hove Sixth Form College.

**History of art A level:** Association of Art Historians; Godalming College; St Dominic's Sixth Form College; Bradfield college; St Marys School Ascot; Sherborne School for Girls; The Harrodian School; Truro and Penwith College; Aylesbury High School; The Cheltenham Ladies College; Rudolf Steiner School Kings Langley; Strode College; and Watford Grammar School For Girls.

**Music Tech:** Eton College; The Purcell School; Falibroome Academy; Rochdale Sixth Form College; Hills Road Sixth Form College; Farnborough Sixth Form College; Music Education Council (MEC); Incorporated Society of Musicians (ISM); National Association for Music in Higher Education (NAMHE); and Joint Audio Media Education Support (JAMES).

**Philosophy:** British Philosophical Association.

Higher education institutions were also consulted during the AS and A level development process for each of these subjects.

Awarding organisations were unable to consult with all subject groups and we welcome the input of organisations, teachers and students in this public consultation.

Department for Education



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