Evidence submission

Curriculum and Assessment Review

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Executive summary

AQA is an independent education charity, providing high quality assessments that are fair, reliable, and support students in their educational journey. Our qualification expertise dates back to 1903, when our predecessor boards were founded by five leading universities. Today, we're the largest provider of academic qualifications taught in schools and colleges. We set and mark the papers for over half of all GCSEs and A-levels taken every year. But exams are only part of the story – we also make sure the content of our qualifications support great teaching.

Our qualifications are designed to suit a range of abilities and include GCSEs, AS and A-levels, the Extended Project Qualification and Technical Awards. Our qualifications are internationally recognised and taught in more than 40 countries around the world and they're highly valued by employers and universities.

This response builds on AQA's wide ranging experience of delivering qualifications and assessment for more than 120 years. To inform our response, we have also listened to and reflected the important voices of those who work with us closely and shape education every day. AQA spoke to 90 school leaders, teachers and exams officers for their views in focus group sessions, as well as wider sector experts. There was a consensus that reform is necessary and that the current system is failing too many children. AQA also spoke to its Student Advisory Group, which gives young learners a voice in the exam system. The group is made up of 15 students from different types of schools, colleges and universities across England.

A teacher told us: "The sheer number of exams is overwhelming – some students are sitting 30 papers over two or three weeks. By the end of it, they're completely fatigued, and it feels more like a test of endurance than a measure of their abilities."

A senior school leader told AQA: "Creative subjects build problem-solving, collaboration, and innovative thinking – skills that employers actually want. Cutting these options is doing a disservice to our students."

A head of department said: "We're not preparing students for the real world. They leave school with academic knowledge but no idea how to apply it in a workplace setting."

A member of our Student Advisory Group said: "'There is too much content that requires memorising information for the exam, which isn't always engaging or useful.'

Key points from our submission

- We welcome the Government's evolutionary, subject-by subject approach to this important reform, and its desire to build on lessons from past reforms instead of seeking to 'reinvent the wheel'. In this response we propose specific changes we believe will improve the system. We do not advocate for a total overhaul or dramatic change in approach. We believe this is not only the right thing to do, but also the one favoured by students and teachers alike.

- It is clear areas of the curriculum that have become crowded. We advocate for a trimming of content in relevant specifications. This would create room for broader skills to be developed that

support future life, study and work. We believe to support this, we can make better use of different qualification types, such as on-demand digital assessments and project qualifications.

- In particular, numeracy, literacy and digital fluency skills are a problem in England now and have been for a long time. AQA is proud to be creating a numeracy qualification that allows students to demonstrate their 'real life' numeracy in a way that would sit alongside Maths GCSE; we plan to develop similar products for literacy and digital fluency. At the same time, we can use digital methods such as AQA Stride to improve the way content in GCSE and A- level is taught and reduce inequalities.

- Designed to help learners starting or retaking GCSEs, AQA Stride includes five 20-minute tests which help teachers see how strong students' understanding is of the fundamental mathematical concepts they will need for the course. Each test is adaptive and personalised to the student so that as they take the test, the system uses the responses provided to select the next, most appropriate question. For students who are struggling, a key challenge they face is overcoming gaps in knowledge from much earlier in their education, but with the added difficulty of not knowing where these gaps occurred. With potentially key foundations missing from their knowledge, this makes learning new content significantly more difficult. AQA Stride helps teachers to tackle these gaps because it can identify them after the fact, even many years later, allowing the teacher to tailor a support package to that student. We are offering AQA Stride free of charge to the sector.

- We would be very cautious about reintroducing coursework in its previous form. The teachers we speak to do not want it because of the workload implications and because it increases opportunities for malpractice and inequality. However, there are ways in which the Government could either set externally marked controlled assessments in some subjects or introduce an element of digital modularity earlier in the course.

- We think there is over specialisation at A-level and that there should be broader options available for students, particularly in Year 12. This could include the addition of an EPQ or looking again at the AS to A2 model.

- We think that the vocational landscape is too complex and rigid. As with A- levels, there should be greater flexibility and choice built in, which could include breaking T-levels down into smaller constituent parts.

- Difficult decisions need to be made about where content that increases diversity is mandated, and where teachers have autonomy to choose. We have updated several specifications with a Diversity & Inclusion (D&I) lens, such as Design and Technology, Art, Psychology and English Literature. We know, for example, that despite offering a wide range of texts by women, only 7% of students in 2024 answered questions about novels or plays by a woman in GCSE English Literature because of teacher text choice – while 83% of students in 2024 answered a question on *An Inspector Calls,* by JB Priestley.

- We also note logistical challenges in terms of access arrangements. Centres where there are large cohorts, such as FE Colleges where resits of GCSE English and Maths are happening, tell us they cannot manage the variety of access arrangements within the timeframes they have.

General views on curriculum, assessment and qualification pathways

10. What aspects of the current a) curriculum, b) assessment system and c) qualification pathways are working well to support and recognise educational progress for children and young people?

The examination system works well, and its positives should be preserved. High stakes, end point exams are efficient, reliable and fair assessment tools. GCSE and A-level exams provide a robust snapshot of student performance during a fixed period of time, alongside the performance of those also taking the same exams during the same period.

The assessment system also shines a light on inequalities and helps policymakers know where to target support. Whilst a criticism of exams is that they simply indicate who has been more or less advantaged in their education, it would be wrong to bend general qualifications to give dispensations to students who are less advantaged, when exams are, in fact, one of the fairest tools at our disposal to show a snapshot of proficiency in a particular subject in a fair and unbiased way.

11. What aspects of the current a) curriculum, b) assessment system and c) qualification pathways should be targeted for improvements to better support and recognise educational progress for children and young people?

We believe the Government is right to highlight issues of assessment burden and the amount of content in qualifications. Areas of the curriculum have become crowded: we advocate for a trimming of content in those areas. This would also create room for broader skills to be developed that would support future life, study and work. We believe we can make better use of different types of qualifications, for example on-demand digital assessments, as well as project qualifications. We also believe there are a wider range of assessment methods and parallel qualifications that could be used, particularly digital, to support the Department's social justice agenda and ready young people more effectively for the modern world.

There are ways that we can seek to reduce the burden of exams on students and ensure they are as accessible as possible to the greatest number of students. These include reducing content in certain subjects, reducing the number of end point exams, and taking an evolutionary approach in moving to digital assessment.

Looking at some subjects and solutions in further detail, in some areas there is too much content that is expected to be covered. For example, GCSE History has a 1,000-year span to cover over the course. In other courses the content is outdated or mechanistic, such as GCSE English Language, GCSE RS and GCSE Geography. Here, teachers tell us that they end up teaching to the specification to the detriment of preparing young people for the next stage in their journey, be that further study or employment. It demotivates teachers and students alike. Of course, it can be argued that the specifications are worth teaching to students who progress towards an academic pathway. Nevertheless, updates would improve the quality and the balance of what students learn and better support and recognise educational progress for children and young people.

In GCSE Maths there is a high content burden, particularly at foundation tier. High content perpetuates the problem of mastery of the fundamental maths skills for lower attainers as there is insufficient time to

‘master’ fundamental knowledge before building further. Reducing the overall content at foundation tier would also allow for a reduction in the end point assessment time – allowing two papers instead of three in our specification, without compromising validity. We could also trim content and cut down from three to two papers in higher without compromising validity.

Steps can be taken to reduce the number of end-point exams in some subjects. For example, GCSE Science could be assessed in a modular fashion in the first and second year of the course, thereby reducing end of course examination hours. In the previous model, students would gain a 'core' science qualification (year 1 module), though time was taken from teaching and learning in Year 10 to revise for exams and teachers entered students for repeated resits to boost marks. Instead, in future, we think digital solutions could help, for example through an on demand digital test to check foundational knowledge before progressing to more complex concepts and knowledge. This is something which has been echoed by a Head of Department we spoke to in our focus group who told us:

"It feels like we’re testing how well students can handle stress rather than how much they’ve learned. The pressure of cramming everything into one exam isn’t working for everyone."

It is AQA’s view that the Review should take a subject-by-subject approach to increasing the proportion of NEA in some subjects, while leaving others as examined only. We would be very cautious about reintroducing coursework in its previous form. Teachers don’t want it because of the workload implications and because it increases opportunities for malpractice. However, there are some ways in which you could either set externally marked controlled assessments in some subjects or introduce an element of digital modularity earlier in the course. For example, in creative subjects, such as GCSE Dance (60%), GCSE Drama (60%), and GCSE Design and Technology (50%), you could increase the proportion of NEA.

In wider terms, the Department for Education should reconsider the effectiveness of the EBacc measure given the sharp decline in take up of arts and creative GCSEs. According to statistics published by Campaign for the Arts in August 2023, there has been a 47% decline in entries since 2010. While it was intended to increase equity in the system by giving students a strong academic core, it has had a detrimental impact on the take-up of creative and arts subjects.

Finally, technology and digital exams have the potential to improve access for students with SEND. This is something which a teacher who we spoke to in our focus groups said they would find helpful:

“We have a lot of SEND pupils who just can't access the exams because of the way they're designed—it's all about reading and writing, and there's very little room for alternative ways of demonstrating their strengths.”

There is an increase in students using word processing software for their exams, and given some students with SEND struggle to obtain a diagnosis, making this the default for more exams phased over a period of time would help. Digital exams can also help with things like large print, audio readers, coloured backgrounds, changing colour-coded diagrams and other access needs. These are things we know cause significant administrative burden for exams officers at the moment and that we could solve instantly with digital exams.

Social justice and inclusion

12. In the current curriculum, assessment system and qualification pathways, are there any barriers to improving attainment, progress, access or participation (class ceilings) for learners experiencing socioeconomic disadvantage?

As an exam board and education charity, AQA is conscious of the level of disadvantage a growing number of students face and through our work we look to ensure that we create qualifications and solutions for all learners to thrive. Examples of this include our work in digital exams (exploring them on a subject-by-subject approach), the creation of AQA Stride, our new fully funded diagnostic maths test which allows teachers to find and fix students' maths gaps and ensuring that through any changes to subjects we consider how the specification and subject conditions could better include diversity and inclusion. In addition, and as noted in the previous question, we should look carefully at the level of content in the curriculum.

When we design our assessments, we pay particular attention to not assuming knowledge which some students who share a socioeconomic status are likelier to have than others. As an exam board, we would not, for example, ask students to undertake a piece of creative writing in GCSE English Language asking them to describe a ski holiday, as clearly this would advantage some students over others. Other examples may not be so obvious and so need continuous self-interrogation and quality assurance.

Ultimately, we would like to see the Review reflect that we want an education system which allows all young people, regardless of what education setting they learn in, or their socioeconomic status, to pursue individual passions and thrive. However, there are still several barriers to making this a reality. Many of these barriers are caused by societal disparities interacting with the education system, as much as the system itself, something which the Sutton Trust noted in its '*A Class Act: Social mobility and the creative industries'* report published in November. The assessment system shines a light on these inequalities and helps policymakers know where to target support.

Barriers don't only exist in equal access to a rounded curriculum – GCSE and A-level results show the significant and persistent disadvantage gap in attainment between FSM eligible students and non-FSM students. There are also entrenched regional disparities which the Government has commented on recently. The highest performing regions of England are clustered in London and the South East; over 30 per cent of entries were awarded a grade 7 or above in Surrey, Berkshire and Buckinghamshire. In contrast, the East Riding of Yorkshire, Cumbria, Staffordshire, and Isle of Wight had the lowest rates, with less than 17 per cent of entries awarded grade 7 or above. However, as set out by the Education Policy Institute and other organisations, local demographics explain much of this. That is to say that poverty, wherever it's found in England, drives lower educational attainment, as do other indicators of disadvantage.

To recap and in order to assist in tackling the challenges noted above, AQA proposes the following to support greater fairness for those experiencing socioeconomic disadvantage:

- Exploring digital exams on a subject-by-subject basis
- The rollout of digital products such as AQA Stride
- Proposing constructive ways in which content can be reduced in the curriculum
- Ensuring the curriculum is reflective of and inclusive for learners

13. In the current curriculum, assessment system and qualification pathways are there any barriers to improving attainment, progress, access or participation which may disproportionately impact pupils based on other protected characteristics (e.g. gender, ethnicity)?

The Review, the Department and the wider sector must have a difficult conversation about the trade-offs between curriculum volume and entitlement, particularly when it comes to diversity and inclusion. In order to guarantee that all students benefit from a diverse curriculum, clearer guidance may need to be included explicitly in the National Curriculum and DfE qualification subject documents. What we know is that even though teachers are able to deliver lessons about a more diverse range of writers, designers, sociologists, musicians and scientists and their work across the key stages, including in many of our own specifications, there is not universal take up of those flexibilities.

Children and young people deserve a curriculum which reflects modern Britain, so young people can see themselves represented and learn about the lives of others regardless of background, ethnicity, sex, gender, sexual orientation, belief or disability. This is something teachers and students themselves ask us about often and is the right thing to do.

A diverse curriculum should be pursued in a way that is meaningful and not tokenistic. The curriculum must strike the right balance between prescribed content to which all learners are entitled, appropriate volumes of course content, and teacher flexibility.

We know that students with particular protected characteristics are less likely to study certain subjects. For example, Black Caribbean students are less likely to pursue STEM subjects and report feeling their abilities are undervalued by their teachers as a reason for this. Research also indicates that Asian students are less likely to choose A-level English Literature.

Students on our advisory group who we spoke to as part of the consultation told us that integrating greater diversity and inclusion in the curriculum must be done meaningfully and not just via a word added to the specification, with one saying

"Adding single bullet points to exam specifications, like 'diverse role models' specifications, could end up feeling tokenistic".

They also told us that they struggle to find examples where diversity and inclusion is included in the curriculum, and that while they welcome initiatives like LGBT+ History Month or Pride Month, these are often delivered as extracurricular activities and not given much time, because they are not assessed as part of a qualification or the curriculum.

Some of this is a symptom of what is delivered in classrooms. Despite having a range of texts by women on the specification, only 7% of students answer questions about novels or plays by a woman in our specifications because of teacher text choice. Despite our recent addition of works by three women of colour to our set text list in GCSE English Literature, most teachers of our specification deliver JB Priestley's *An Inspector Calls*. In 2024, 411,934 candidates answered questions on *An Inspector Calls,* which represents 83% of the cohort. The reasons for this could be due to familiarity, assumptions about examiner knowledge or preference, the time needed to acquire training and resources for other novels and plays, a lack of physical copies of the texts themselves, or a combination of these.

14. In the current curriculum, assessment system and qualification pathways, are there any barriers in continuing to improve attainment, progress, access or participation for learners with SEND?

Technology and digital exams have the potential to improve access for students with Special Educational Needs and Disabilities (SEND). There is an increase in students using word processing software for their exams, and given some students with SEND struggle to obtain a diagnosis, phasing towards digital exams by default over time would help. Digital exams can also help with things like large print, audio readers, coloured backgrounds, changing colour-coded diagrams and other access needs. These are things we know cause significant administrative burden for exams officers that we could solve with a move towards digital exams.

Our aim is that every student has a fair and equal opportunity to demonstrate their knowledge. This means embedding accessibility in our questions and papers during assessment design. We monitor the language used in our papers to ensure it does not introduce any unfairness. We select visuals carefully to not disadvantage students with visual impairments. Modified versions of exams are also available where necessary. It should also be noted that while some features will support accessibility for a certain group of students, it may not be the case for all students. Accessible design does not eradicate the need for access arrangements, and we work with SENCos to ensure students can have the materials and support they need.

The current system also presents logistical challenges in terms of access arrangements. Centres where there are large cohorts, such as FE Colleges where resits of GCSE English and Maths are happening, tell us they cannot manage the variety of access arrangements within the timeframes they have.

Designing a curriculum and assessment system which learners with SEND can fully access is important, and something on which exam boards are continuously improving on, though it does present challenges. Barriers to ensuring accessibility range from specific access requirements for SEND students, to more systemwide issues.

Some educationalists and learners believe that the volume of written exams at the end of a two-year course, about thirty hours for a typical GCSE student, can be detrimental to the mental health and wellbeing of students in general and those with SEND in particular. This is compounded by the fact that a typical access arrangement for students with SEND is extra time – pushing up the number of hours. The Review and ultimately the DfE might like to consider the most appropriate volume of written exams at the end Year 11 and Year 13. There are trade-offs involved in this around the reliability and validity of grading in some subjects. Some specifications, for example in GCSE Maths, lend themselves better to the possibility of having fewer written papers at the end of the course. And, similarly, some subjects lend themselves better to traditional or innovative non examined assessments (NEA) than others.

There are well documented issues with the SEND system more broadly – with increasing rates of diagnoses coming up against a lack of resources and specialists to support this. The lack of SEND specialists mean some – particularly poorer – families struggle to get a SEND diagnosis for their child, meaning they might be missing out on access arrangements they need.

The appropriateness of visual resources, and the access arrangements that go along with these, is also an issue. Similarly, there are debates about how (and whether) British Sign Language ought to be recognised for the spoken language endorsement in English language.

15. In the current curriculum, assessment system and qualification pathways, are there any enablers that support attainment, progress, access or participation for the groups listed above?

As we have set out in the answers above, there are a range of interventions that can be made to improve attainment, access and participation. These include:

Exploring digital exams on a subject-by-subject basis

Technology and digital exams have the potential to improve access for students with SEND. There is an increase in students using word processing software for their exams, and given some students with SEND struggle to obtain a diagnosis, making this the default for more exams phased over a period of time would help. Digital exams can also help with things like large print, audio readers, coloured backgrounds, changing colour-coded diagrams and other access needs. These are things we know cause significant administrative burden for exams officers that we could solve instantly with digital exams. On demand assessment could also support students who have difficulty being assessed under normal exam qualifications, as could a project qualification as students are assessed on their ability to plan, manage, complete and review their project.

The creation of AQA Stride

AQA Stride includes five 20-minute tests which help teachers see how strong students' understanding is of the fundamental mathematical concepts they will need for the course. Fully funded by AQA, each test is adaptive and personalised to the student so that as they take the test, the system uses the responses provided to select the next, most appropriate question. For students who are struggling, a key challenge they face is overcoming gaps in knowledge from much earlier in their education, but with the added difficulty of not knowing where these gaps occurred. With potentially key foundations missing from their knowledge, this makes learning new content significantly more difficult and in some cases impossible. AQA Stride helps teachers to tackle these gaps because it can identify them after the fact, even many years later, allowing the teacher to tailor a support package to that student. We are offering this product free of charge to the sector.

Proposing constructive ways in which content can be reduced in the curriculum

We believe the Government is right to highlight issues of assessment burden and the amount of content in qualifications. It is clear there are areas of the current system that have become crowded, and we advocate for a trimming of content in those areas. This would also create room for broader skills to be developed that will support future life, study and work. We believe that to support this, we can make better use of different types of qualifications, for example on-demand digital assessments, as well as project qualifications. We also believe there are a wider range of assessment methods and parallel qualifications that could be used, particularly digital, to support the Department's social justice agenda and ready young people more effectively for the modern world.

Ensuring the curriculum is reflective and inclusive for learners

The Review, the Department and the wider sector must have a difficult conversation about the trade-offs between curriculum volume and entitlement, particularly when it comes to D&I. If we want to guarantee

that all students benefit from a diverse curriculum, then it may need to be included explicitly in the National Curriculum and DfE qualification subject documents. What we know is that even though teachers are able to deliver lessons about a more diverse range of writers, designers, sociologists, musicians and scientists and their work across the key stages, including in many of our specifications, there is not universal take up of those flexibilities.

Children and young people deserve a curriculum which reflects modern Britain, so young people can see themselves represented and learn about the lives of others regardless of background, ethnicity, sex, gender, sexual orientation, belief or disability. This is something teachers and students themselves ask us about often and is the right thing to do.

Ensuring an excellent foundation in maths and English

16. To what extent does the content of the national curriculum at primary level (key stages 1 and 2) enable pupils to gain an excellent foundation in a) English and b) maths? Are there ways in which the content could change to better support this aim? Please note, we invite views specifically on transitions between key stages in section 9.

N/A

17. To what extent do the English and maths primary assessments support pupils to gain an excellent foundation in these key subjects? Are there any changes you would suggest that would support this aim?

N/A

18. To what extent does the content of the a) English and b) maths national curriculum at secondary level (key stages 3 and 4) equip pupils with the knowledge and skills they need for life and further study? Are there ways in which the content could change to better support this aim?

GCSEs and A-levels provide robust and respected academic routes for both English and Maths and prepare students for further study. But there is more that can be done to equip students with the knowledge and skills students need for life and further study.

Numeracy, literacy and digital fluency skills are a problem in England now and have been for a long time. Currently, some estimates are that 9 million adults have low basic skills in literacy or numeracy, of which 5 million have low skills in both, and 18 per cent of adults aged 19-64 are not qualified to at least Level 2. These figures have proven stubbornly high for years and low levels of numeracy and literacy have persisted in the general population for some time. More information on this subject can be found in AQA's *"A, B, C, it's as easy as 1, 2, 3" Towards new assessments for Numeracy, Literacy and Digital Fluency* report published in October 2023.

Please see below for suggestions for improvements that could be made to maths and English to address these issues:

Maths

The present GCSE provides the right pathway for intermediate (Grade 4-6) and higher (Grade 7-9) achieving students but is at risk of failing lower attainers (Grade 1-3). Some of these students need more time to embed their learning, build their core skills and knowledge and address deep rooted misconceptions built up over previous key stages.

There is a high content burden for GCSE Maths at foundation tier. High content perpetuates the problem of mastery of the fundamental maths skills for lower attainers as there is insufficient time to 'master' fundamental knowledge before building further. Reducing the overall content would also allow for a reduction in the end point assessment time – allowing two papers instead of three, without compromising validity. There is also the potential to maintain the amount of content for intermediate and higher students but reduce the number of papers from three to two.

English

GCSE English Language does not sufficiently enthuse and inspire students to continue studying English Language post-16 and there are significant drop-offs in uptake of English Language A-level and higher education. Entries to A-level English declined from 60,275 in 2020 to 56,745 in 2024, despite overall growth in A-level entry numbers. The English Association echoed similar concerns in a press release in 2022.

The narrow curriculum (as referenced by the English Association Working Group on GCSE English Reform in their July 2024 report) has led to teaching to the test and so the subject has become too mechanistic. This leads to students becoming disengaged and demotivates teachers. Some of that is caused by re-instilling grammar that has been covered at KS2, which is also mechanistic, and that then flows into English Language GCSE. Specification and texts need to match the modern world, assess oracy and include multi-modal texts.

GCSE English Language spoken endorsement is also problematic as it places a high administrative burden on teachers. Looking to the future, we should look to explore how this burden could be reduced with an increased emphasis on oracy. Creative writing could also be better included in the curriculum and assessed, looking at how it could be made more appropriate to the creative writing process, eg including planning, drafting and editing.

Similarly, teachers have highlighted to us that literacy issues are a significant barrier across subjects, impacting students' ability to perform well in exams that require strong reading and writing skills. Teachers suggest that literacy should be reinforced school-wide rather than limited to English classes, as literacy skills are foundational for success in various subjects. In addition, they echoed some of the points raised by our Student Advisory Group that they had seen a notable trend of declining literacy levels among students, especially those from disadvantaged backgrounds and felt that this impacted their ability to engage with parts of the curriculum.

This is why AQA believes that something additional is needed in the curriculum for all students to demonstrate a level of proficiency in numeracy, literacy and digital fluency alongside the traditional academic route, and that this should apply to all students, not only the less academically successful. We have therefore created a numeracy qualification that allows students to demonstrate they are numerate alongside Maths GCSE and are developing similar products for literacy and digital fluency.

19. To what extent do the current maths and English qualifications at a) pre-16 and b) 16-19 support pupils and learners to gain, and adequately demonstrate that they have achieved, the skills and knowledge they need? Are there any changes you would suggest that would support these outcomes?

GCSEs provide an established and respected means for understanding which candidates achieved better outcomes than others and are therefore suited for determining further study options, and some forms of employment. GCSE grades are, however, hard to use as a proxy for fundamental numeracy and literacy, even though that is how they are sometimes used. Streamlining the number of GCSEs, content and/ or number of exams, and introducing a suite of digital on demand qualifications, could rebalance the scales and rebalance outcomes.

A-levels are also an established and internationally respected course of study to prepare the most academic students for higher education. Further, the Level 3 Mathematical Studies 'Core Maths' provides a flexible course of study for 16–19-year-olds who want to pursue more applicable (as opposed to pure) mathematics such as statistics. For academic students, there are a range of qualifications which can be used as a selection tool for further study and employment, giving an indication of a student's knowledge and skills.

Given that last year, only 27.74% of students who had not achieved a Level 2 pass – equivalent to GCSE Grade 4 – in maths and English by age 16 were able to do so by age 19, it would be wise and in the interest of the large number of 19-year-olds who never achieve this pass to have alternative routes to proving their literacy and numeracy competence. AQA internal analysis has also shown that out of the over 3000 Foundation students who took their last three GCSE exams with AQA, only about 10% of them passed this summer, and less than 10% scored higher marks after each subsequent attempt.

One possible alternative to the current resit policy could be that the 30% who do not achieve Level 2 pass standards by 16 are required to sit a minimum number of retakes before being offered alternative pathways to show that they are ready for the world of work. This would need to be carefully balanced with the need for social mobility as quickly and as early as possible.

While the Condition of Funding policy being tied to resits seems to have had some positive effect, more work needs to be done to ensure that students are given the greatest support as quickly as possible to secure their passes sooner than later. We acknowledge the requirement for schools and colleges to offer a minimum number of hours for these students in maths and English, the impact of which may not be seen immediately.

For students who are operating significantly below Level 2, the qualification landscape is less attractive. Repeated GCSE resits can be demoralising for students, who experience repeated frustration at not achieving a Grade 4. While Functional Skills Qualifications provide an alternative to GCSEs, Ofqual surveys show that they are not well-understood by employers and have struggled to establish a reputation for themselves outside of the shadow of GCSEs. GCSEs are more attractive for centres when they consider performance tables, as education providers can show improvement from a grade 1 to a grade 3, whereas the pass-fail dichotomy of an FSQ means it can seem less attractive. There are also significant overlaps between Foundation Tier GCSE Maths and FSQ Maths Level 2, meaning that there is often little to attract centres to put candidates forward for FSQs. Level 2 FSQs are also very demanding for candidates, meaning that they struggle to serve their role as a universal measure of competence. This has resulted in a substantial drop in entries for Level 2 FSQs.

Resits should be available to all those who want them. That is why AQA has developed AQA Stride to help students and their teachers understand gaps in their knowledge and help them address these. Stride is our new diagnostic maths test which allows teachers to find and fix students' maths gaps. It helps show what students know and why, quickly auto-marking and providing analysis for teachers to enable them to target interventions. Designed to help learners starting GCSEs – either for the first time or as a resit – Fully funded by AQA, Stride is a quick and engaging way to assess students while building independence and confidence.

When we discussed this with members of AQA's Student Advisory Group, they agreed that it was important to get a good grounding in both English and maths but stated that they thought the timings of sitting the examinations are too arbitrary. They added that more 'when ready' assessment would be

helpful in tackling this but cautioned that this would require additional support for teachers in helping to deliver this.

In recognition of wanting to do more to tackle resits, especially for those who find themselves in a continual cycle of re-sitting, we are creating a numeracy qualification that allows students to demonstrate their 'real life' numeracy skills but doing so in a way that would sit alongside Maths GCSE. We are also in the early phases of developing similar products for literacy/oracy and digital fluency. Looking to the future AQA also sees a time where this type of qualification could be developed and introduced for other areas, such as languages. Streamlining the number of GCSEs, content and/ or number of exams, and introducing a suite of digital on demand qualifications, could rebalance the scales.

20. How can we better support learners who do not achieve level 2 in English and maths by 16 to learn what they need to thrive as citizens in work and life? In particular, do we have the right qualifications at level 2 for these 16-19 learners (including the maths and English study requirement)?

As we set out in answer to question 19, GCSE resits should be available to all who wish to take them. There are many benefits for those who achieve a Level 2 'pass' at GCSE, including in destinations, employment and earnings. However, the condition of funding resits programme has led to some students repeatedly sitting GCSEs which they have little chance of realistically achieving; this can be demoralising and damaging for students. This summer almost 186,000 teenagers over the age of 16 resat maths GCSE, but only 15% achieved a grade 4 or above.

AQA has developed AQA Stride to help students and their teachers understand gaps in their knowledge and help them address these. Our new diagnostic maths test allows teachers to find and fix students' maths gaps. It helps show what students know and why, quickly auto-marking and providing analysis for teachers to enable them to target interventions.

Many organisations and education thought leaders have called for a resit policy rethink with an alternative programme to support students who don't achieve level 2 in English and maths by 16, and even more so given the rise in GCSE resits. We believe something else is required to help support this cohort of learners to develop their skills, knowledge and confidence to thrive in work and life. We are at the very advanced stage of delivering a numeracy assessment to test 'real-world' maths, and it will be available on demand to take and practise whenever students are ready. We are creating something that would enable these learners to demonstrate their capabilities and move on to their next stage. It also includes a learning component to address some of the fundamental issues that stop students progressing. Our proposals have been covered in The Guardian and The Times.

21. Are there any particular challenges with regard to the English and maths a) curricula and b) assessment for learners in need of additional support (e.g. learners with SEND, socioeconomic disadvantage, English as an additional language (EAL))? Are there any changes you would suggest to overcome these challenges?

From the recent GCSEs, over 50% of disadvantaged learners did not achieve the basics – at least a Grade 4 GCSE in both English and Maths. This summer, only 15% of students with an EHCP attained GCSE Level 2 in Maths and English compared to 77% with no identified SEN and 39% with SEN support. Exam accessibility for learners with EAL is affected by their level of English proficiency and the language complexities of assessments. Clearly, for these students, something is not working as well as it should,

and the assessment system holds up a mirror, showing those students for whom additional need hinders success.

With an increase in access arrangements requests over recent years (Ofqual's Access arrangements for GCSE, AS and A-level: 2023 to 2024 academic year notes an increase of 12.3% in the last year), there is a lack of clarity about how and when the arrangements are being put in place for individual students or groups of learners. The most common access arrangements within assessments are extra time for students to complete their exams. While it is often the default option, it may not be the best arrangement for some students. Despite extra time driving the increase in access arrangements, there is a lack of clarity on how it is being used by students and how prepared they are for using it effectively. It seems to be the 'go to' option, which may mean it is not the most appropriate for all who have it and other arrangements may be more suitable.

Furthermore, access arrangements for SEND students can present a substantial workload implication for school staff. The need for a large number of separate exam rooms, extra time and limited resources all add significant pressure to exam officers' roles and increase the complexity of administering an exam season.

From discussions we have had, we also know that there are issues in gaining access arrangements for SEND students if they move institutions at 16 and need to resit. We know that this can be very difficult and time consuming for centres to obtain the relevant information (JCQ Form 8 and Form 9) from the previous centre in time for the November resit series, as a student can arrive at a new centre which knows little about them and their needs; this is particularly acute in FE colleges which tend to start their term later in September. Centres where there are large cohorts, such as FE Colleges where resits of GCSE English and Maths are happening, tell us they cannot manage the variety of access arrangements within the timeframes they have.

Students with additional learning needs in English can take AQA's Entry Level Certificate Step up to English allowing them to develop the skills needed to progress to GCSE. Its assessment objectives are based on those of GCSE English Language.

Curriculum and qualification content

22. Are there particular curriculum or qualifications subjects where:

a. there is too much content; not enough content, or content is missing;
b. the content is out-of-date;
c. the content is unhelpfully sequenced (for example to support good curriculum design or pedagogy);
d. there is a need for greater flexibility (for example to provide the space for teachers to develop and adapt content)? Please provide detail on specific key stages where appropriate.

Areas of the curriculum have become crowded, and we advocate for a trimming of content in the relevant specifications. This would also create room for broader skills to be developed that will support future life, study and work. We believe that to support this, we can make better use of different types of qualifications, for example on-demand digital assessments, as well as project qualifications.

All specifications have a natural shelf life, and AQA welcomes this Curriculum and Assessment Review's call for evidence as a first step in refreshing GCSEs, A-levels and the curriculum more broadly.

In some areas there is too much content that is expected to be covered, for example GCSE History. In other cases, the content is outdated or mechanistic, such as GCSE English Language, GCSE RS and GCSE Geography. Here, teachers tell us that they end up teaching to the specification to the detriment of preparing young people for the next stage in their journey, be that further study or employment. It demotivates teachers and students alike. Of course, it can be argued that the specifications are worth teaching to students who progress towards an academic pathway and improve the quality and balance of what students learn.

There is also growing demand for including sustainability and climate change in the national curriculum which led to the Department for Education's 2030 strategic vision for the education sector in these areas. Climate change and sustainability are topics which many young people are passionate about. In fact, AQA's research discovered over 70% of students want to learn more about it. Therefore, to play its part, AQA used information from a Royal Meteorological Society survey and has created new teaching resources to help teachers identify opportunities to explore climate change beyond science and geography – in citizenship, design technology, maths, psychology and religious studies.

Going forward, AQA believes that climate change and sustainability should be embedded across the curriculum. Many young people are now more aware of and have an interest in learning about and understanding more on the impact of climate change and sustainability. Employers are also looking for the knowledge and skills needed for the green jobs of the future. So, it is important that the subject content in all subjects reflects this going forward. Climate change touches on multiple subject areas, and just as it impacts different aspects of our lives, so too should it be incorporated across different subjects.

23. Are there particular changes that could be made to ensure the curriculum (including qualification content) is more diverse and representative of society?

The Review, the Department and the wider sector must have a difficult conversation about the trade-offs between curriculum volume and entitlement, particularly when it comes to diversity and inclusion (D&I). If you want to guarantee that all students benefit from a diverse curriculum, then guidance may need to be included explicitly in the National Curriculum and DfE qualification subject documents.

What we know is that even though teachers are able to deliver lessons about a more diverse range of writers, designers, sociologists, musicians and scientists and their work across the key stages, including often in our specifications, there isn't universal take up of those flexibilities.

AQA is working hard to make sure our qualifications help prepare young people for life in modern Britain – as well as reflecting the different communities of teachers and students we serve. We have updated several specifications with a D&I lens, such as design and technology, art, and English Literature. Still, there is more that can be done both by exam boards and by the DfE. For example, in the science content requirements, set by the DfE, there is a gender bias towards men because the laws of science included in the curriculum are named after male scientists – for example, Newton's laws of motion and Charles' law on the behaviour of gases.

Students need to appreciate and understand the breadth of the scientific community and how generally it is teams of scientists – often international teams – rather than individuals working on a research project or a discovery such as genome mapping or creating a vaccine for Covid. This of course includes contributions from female scientists, yet they are often not explicitly named. The science GCSE curriculum includes no named scientists, since the history of science was taken out when GCSEs were last reformed, with the exception of GCSE Physics, specifically the development of the atom, in which Niels Bohr and James Chadwick are mentioned. As for A-level, male scientists are mentioned but only in the context of being used as part of a law, a model, or a principle. Women like Rosalind Franklin and Marie Curie are not mentioned although there are sections that reference James Watson and Francis Crick. These are areas where updates to the science content requirements, and potentially other general qualifications, would be straightforward.

In other areas, difficult decisions need to be made about where content that increases diversity is mandated, and where teachers have autonomy to choose. We know, for example, that despite offering a wide range of texts by women, only 7% of students answer questions about novels or plays by a woman in GCSE English Literature because of teacher text choice.

Students in our advisory group called for greater coverage of the histories of people from different social classes, different religions and beliefs and different regions of the world, notably emphasising the need for their history curricula to be presented from different perspectives to better portray the experiences of different people and groups. They felt that diverse perspectives should be integrated throughout the curriculum to avoid tokenistic representations of different groups and cultures. They gave examples of particular areas where they felt there was an absence of diversity. For example, as one young person put it,

"The only woman we studied in history was Florence Nightingale but not Mary Seacole', with another adding of the science curriculum 'How can we expect people to go into those fields if there's no representation?"

24. To what extent does the current curriculum (including qualification content) support students to positively engage with, be knowledgeable about and respect others? Are there elements that could be improved?

AQA Project Qualifications are stand-alone qualifications that help students develop broader study skills, offering a route into further and higher education and which can help support student to positively engage and be knowledgeable about and respect others. A huge benefit of Project Qualifications is that they establish and develop skills that students can take with them as they progress through their education. For example, students undertaking a Project Qualification can produce a formal academic report, developing writing skills that will be of immense value. A Project Qualification will bring students skills that will enhance attainment in their sixth form studies and beyond. Students apply these learned skills to a project that is unique and often students choose something which is personal and meaningful to them. We have seen evidence of them helping students connect with their local community such as one project investigating the health benefits of singing, which saw the creation of a community choir as the EPQ's artefact.

25. In which ways does the current primary curriculum support pupils to have the skills and knowledge they need for life and further study and what could we change to better support this?

No response.

26. In which ways do the current secondary curriculum and qualification pathways support pupils to have the skills and knowledge they need for future study, life and work and what could we change to better support this?

Numeracy, literacy and digital fluency skills are a problem in England now and have been for a long time. Some 9 million adults have low basic skills in literacy or numeracy, of which 5 million have low skills in both, and 18 per cent of adults aged 19-64 are not qualified to at least Level 2. Over half (57%) of the most digitally intensive businesses have found it difficult to find staff with good digital skills. We are creating a numeracy qualification that allows students to demonstrate their 'real life' numeracy in a way that would sit alongside Maths GCSE; we will be developing similar products for literacy and digital fluency.

27. In which ways do the current qualification pathways and content at 16-19 support pupils to have the skills and knowledge they need for future study, life and work and what could we change to better support this?

Project qualifications offer a significant opportunity to increase how well-equipped young people are for the next stage in their lives. Research shows that Extended Project Qualifications (EPQs) offer "solutions for many of the perceived deficits of the English post-16 curriculum" and could also empower students "to pursue a broad and diverse education".

Research also shows that project qualifications can encourage independent learning, increase students' resilience and academic confidence, and build reflective students while preparing them for the added rigours of university study. EPQs can also potentially boost students' grades in Level 3 qualifications. They also offer opportunities to keep a broader range of study in Year 12, before specialising in Year 13, addressing what we feel is an over-specialisation too soon at 16. Universities tend to make reduced offers to potential undergraduates who have completed an EPQ.

HPQ and HPQ entries are still relatively low. More should be done to ensure more students benefit from them.

We are creating a numeracy qualification that allows students to demonstrate their 'real life' numeracy in a way that would sit alongside Maths GCSE. We are now developing similar products for literacy and digital fluency. The aim is that students can demonstrate proficiency in a different way to traditional academic qualifications, based on a very specific set of knowledge and skills. Some of those qualifications could take a graded music exam style approach in future, in areas such as languages for example. Streamlining the number of GCSEs, content and/ or number of exams, and introducing a suite of digital on demand qualifications, could also all help to rebalance the scales.

A broad and balanced curriculum

28. To what extent does the current primary curriculum support pupils to study a broad and balanced curriculum? Should anything change to better support this?

No response.

29. To what extent do the current secondary curriculum and qualifications pathways support pupils to study a broad and balanced curriculum? Should anything change to better support this?

Pathways could be reformed to increase breadth in the curriculum. The EBacc should be discontinued as it has not achieved its aims and has decreased creative subject uptake. Progress 8 is a good measure for showing value-added, although the constituent groups should be reformed to encourage greater uptake of a broad range of subjects, particularly creative and vocational subjects. This could be done by decreasing the number of subjects to 'Progress 5,' reforming the current subject groups (or 'buckets') to allow greater flexibility, or increasing to 'Progress 10'. This is something teachers we spoke to in our focus group said they agreed with too:

'Progress 8 forces us to focus on academic subjects at the expense of creative and vocational options. It's limiting what we can offer, and some students are really missing out because of it.'

16-year-olds have an entitlement to study English, maths, science, religious studies, physical education, citizenship and Relationships, Sex and Health Education (RSHE), which – when topped up by other subjects to the customary ten – is a broad curriculum. We are an international leader in the breadth we offer to students up to the age of 16, which should be preserved.

However, the curriculum students experience at secondary school has narrowed. In some ways, the EBacc set out to encourage a core academic entitlement, with students having to study a language and history or geography. However, it has led not only to lower arts uptake but also to fewer secondary schools offering arts qualifications. (Harris et al, 2020; Neuman et al, 2020; Ashton and Ashton, 2023). Indeed, research has found that because of the way Progress 8 attainment is measured, it ends up weighted (70:30) in favour of the traditional academic subjects of the EBacc. This has led to knock-on effect in uptake at A-level.

We believe the Department should discontinue the EBacc as a measure given the sharp decline in take up of arts and creative GCSEs. While it was intended to increase equity in the system by giving students a strong academic core, it has stripped creative and arts subjects out of the curriculum, subjects that can often 'hook in' students who can otherwise disengage.

Progress 8 could be reformed to encourage greater breadth. The simplest way to remove the link with the EBacc would be to remove that bucket – so you would have a 'Progress 5' with two maths and English buckets and then the three 'free' buckets. If you accept the argument that the EBacc buckets have driven down numbers taking creative and arts subjects, then logic might suggest that reversing this would counter that effect.

Another option could be to change the relative sizes of the groups and essentially shuffle the pack to remove the EBacc bucket to free up curriculum time for creative and vocational subjects. This would

drive uptake in other subjects as they were no longer deprioritised and should be easy for students, parents and teachers to understand.

If the Government was committed to retain the EBacc in some form, Progress 8 could be increased to Progress 9 or 10 by adding a fourth bucket of subjects to the Progress 8 measure focused on creative and vocational. Taking these out of the 'open' bucket and putting them in a fourth one with the stipulation that one or two subjects must be chosen would ensure they are taught.

30. To what extent do the current qualifications pathways at 16-19 support learners to study a broad curriculum which gives them the right knowledge and skills to progress? Should anything change to better support this?

A-levels can lead to students over-specialising when there should be broader options available for students, particularly in Year 12. A broader 16-19 curriculum could include the addition of an EPQ or looking again at the AS to A2 model as well as technical qualifications or enabling students to mix academic and vocational qualifications more readily.

18-year-olds in England study a narrow curriculum by international standards. Nevertheless, the A-level brand remains globally prestigious – and many HE stakeholders consider the depth this facilitates desirable or, for some subjects, essential for their undergraduates.

At post-16, the curriculum narrows, with about half of learners following A-level, applied or mixed routes of study, 39% intermediate level and only 5% undertaking an apprenticeship or similar route to employment.

If A-level content could be reduced slightly, this could free up more time for 16- to 19-year-olds to access greater breadth, something which the teachers we spoke to when forming our response said they supported. This might look like the reintroduction of 'minors', akin to AS-levels. Thousands of students each year still sit AS-levels to achieve this breadth, but their popularity has waned since they were decoupled from A-levels. A new approach to minor subjects could be used to deliver broader or cross-disciplinary subjects, such as 'Public Understanding of Science' or 'Social Research Methods', or a taste of vocational and technical education for those pursuing an academic path.

We would also like to see a broader curriculum encompass T-levels. However, to make them viable and to give them the best possible chance of success, there are several changes that need to be considered:

- There should be a commitment to the long-term future of the qualification, which will hopefully come following the pause and review of Level 3; this will give exam boards greater confidence in investing in their development. As they are structured today, they are undeliverable at the current scale and not an attractive proposition for awarding organisations to deliver.
- The delivery costs should be considered and should either be reduced or a way of sharing the high delivery costs should be devised to improve financial viability, especially but not only for low-entry T-levels.
- The components could be broken out so that parts of existing T-levels can be taken independently, to introduce a level of modularity. In any event, the equivalence to three A-levels should be abandoned, as it creates a cliff edge for those who drop out.
- Assessment design should be remodelled to work better for students and be simpler for exam boards to deliver.

- The way in which the industry placement operates should be reconsidered to make the qualification more deliverable.

An expansion of Core Maths could help address the 'maths gap' between GCSE and A-levels, such as for social scientists, for those who have achieved a Grade 4 in GCSE Maths but cannot or do not wish to access A-level Maths.

Better still, this could be linked to an increase in the provision and uptake of project qualifications. These qualifications allow young people to pursue a topic of interest about which they are passionate, and document the journey through which they write either an academic essay or an artefact – ranging from longitudinal explorations of hen welfare to wellbeing-boosting community choirs. The Extended Project Qualification (EPQ) has been found to correlate with improved degree classifications and reduced dropout rates at university. Suitable for all levels and abilities, and academic or vocational pathways, it provides a robust and comparatively AI-proof way of diversifying assessment modes. A quick policy lever the Department for Education could pull in this area would be to make HPQs and EPQs eligible for the Large Programme Uplift given to FE colleges for students taking one alongside a full programme of study.

Young people tell us they do not want enforced breadth. Unsurprisingly, 16-year-olds guard the autonomy they are given to choose what they go on to study at this age very closely, which is something the sector might like to consider before making breadth in subjects mandatory.

A relaxed workload in A-levels (and some vocational routes, T-levels in particular) would also free up time for extracurricular activity. One slightly more pro-breadth young person told us "It would be good if it was encouraged to study perhaps a smaller qualification in a subject area different to the rest of what you are studying. I wouldn't oppose mandatory maths and English until 18. However, this wasn't so popular amongst my peers! My peers and I agree that extracurricular experiences are beneficial too; it is nice to spend time meeting people who study different subjects to you and learning something new, without the stress of being graded on performance."

31. To what extent do the current curriculum (at primary and secondary) and qualifications pathways (at secondary and 16-19) ensure that pupils and learners are able to develop creative skills and have access to creative subjects?

Creative and expressive arts have broader benefits for students' learning but have seen a decline in uptake and even offer in schools in recent years. Overall, the percentage of pupils doing any qualification in art and design fell from 31% in 2015 to 27% in 2023, in music from 9% to 7%, and in performing arts from 20% to 12%.

Music, drama, art and design and dance are all available as GCSE specifications, but access to these varies from one school or college to another. Timetable constraints and responses to accountability measures such as the EBacc, mean students often access only one or two of these in key stage 4 if at all. Teachers we have spoken to have voiced concerns that the current accountability system, such as the EBacc, pressures schools to prioritise subjects that improve performance metrics, which often marginalises vocational and creative subjects. This system narrows students' experiences, restricting access to skills that are increasingly relevant in today's economy, such as digital literacy and critical thinking.

This is an area that members of our Student Advisory Committee felt strongly about when we discussed it with them. One member told us that she felt more emphasis should be placed on take-up of creative subjects, but that lots of people she knew from school did not have access to them either through a lack of teacher resource or there were financial constraints because they were extracurricular activities.

Pathways could be reformed to increase breadth. The EBacc should be discontinued as it has not achieved its aims and has decreased creative subject uptake. Progress 8 is a good measure for showing value-added, although the constituent groups should be reformed to encourage greater uptake of a broad range of subjects, particularly creative and vocational subjects. This could be done by decreasing the number of subjects to a 'Progress 5,' reforming the current subject groups (or 'buckets') to allow greater flexibility or increasing to 'Progress 10'.

32. Do you have any explanations for the trends outlined in the analysis and/or suggestions to address any that might be of concern?

As mentioned in previous answers, there has been a significant decline in the number of students taking creative and design and technology courses of study up to 16; this has had a knock-on post-16 as well. One reason for this is the EBacc suite of courses have encouraged a focus on a core suite of academic subjects, at the expense of others. We believe this decline should be reversed by revising the EBacc measure, as these creative subjects offer breadth and can enthuse and inspire students, particularly those who may struggle with school.

33. To what extent and how do pupils benefit from being able to take vocational or applied qualifications in secondary schools alongside more academically focused GCSEs?

As a nation, we urgently need a greater focus to technical and vocational education. The Review will be familiar with the longstanding issue around the reputation and prestige disparity between academic and vocational routes – and initiatives old and new to tackle this. While this issue endures, however, the decline in a vocational offer for 14- to 16-year-olds and the standardisation towards a near-universal set of GCSEs is understandable.

The review process needs to address this longstanding problem and seek to arrive at simplicity in technical and vocational education to help encourage take-up. While VTQ is a space ripe for further reform, any changes must consider what has and has not worked in the past.

Parity of esteem is not something qualification design can address. 'Esteem' is a cultural label, so is the product of much wider considerations than simply qualification design. Instead, we argue that we need to focus on equivalent value, where vocational and academic qualifications are of high quality. Parity of esteem is a conceptual chimera: perceptions are not in the system's control. Instead, by demonstrating equivalent value, we can create the conditions in which vocational qualifications acquire social, educational and employment esteem in their own right. Vocational qualifications need to relate more to technical qualifications, bringing an equivalence in value between them, too.

One member of our Student Advisory Group told us "The two vocational subjects which I studied at level 2 felt severely outdated and tedious to complete, and I learnt close to nothing of value. I don't think they are held in high regard either: the fact that the subjects don't even exist on the UCAS form despite being accredited level two qualifications just demonstrates the lack of public understanding of them."

Teachers we spoke to about vocational and technical qualifications noted that VTQs can offer more flexibility and choice. In addition, they noted their ability in better meeting local skills needs, which is also a priority for Ofsted.

The either-or debate around academic and vocational is a distraction. We should have mixed programmes of study for those who want them. Combining general and vocational qualifications not only allows cross-pollination of knowledge and skills, but also means young people can keep their options open and try out a range of topics and experiences. In the general qualification space, we have development of critical thinking, problem solving, and research skills – as well as knowledge and conceptual schemes which underpin further learning. In the vocational qualification space we have communication, team working and other skills everyone needs, as well as specific industry skills developed over time in real settings. We believe the best education is one that broadens, not narrows, opportunity. One area of concern for us, however, is the proposal to change funding rules around mixed-study programmes, and the potential for this to undermine the ability for schools and colleges to offer these to our young people. But the principle should be: recognise that some students will adopt a wholly vocational route, others a wholly academic route, and a significant proportion will benefit maximally from a mixture of the two.

In other conversations with teachers, they expressed a desire to bring technical and vocational more into schools, but there is some concern shown on more practical elements for delivery such as how best to engage with employers, and how small sixth forms would be able to cope.

T-levels were a laudable idea but need to be reformed in a number of ways for them to achieve their aims. At current entry levels, our analysis suggests operating losses in relation to a single T-Level are likely to exceed £0.8m annually, and that a break-even point could only be achieved by charging entry fees at an unacceptably high level. Teachers we spoke to admitted that T-levels had experienced a 'rocky start', but they said the review should not feel the need to throw it all out, rather reform them to enhance their viability. As they are structured today, they are not uneconomic to deliver. The panel should:

- Consider delivery costs in order to reduce or find ways to share the high delivery costs, especially but not only for low-entry T-levels.
- Components could be broken out so that parts of existing T-levels can be taken independently.
- Ways to reduce or share operating costs should be explored, in order to make T-levels break even.
- Assessment design should be remodelled to work better for students and be simpler for exam boards to deliver.
- The way in which the industry placement operates should be reconsidered to make the qualification more deliverable.

Careers advice itself still varies from school to school, college to college and locale to locale. While T-levels endeavoured to create a robust reputable vocational offer at Level 3, the workload means they are inflexible (they cannot be mixed and matched with other qualifications), and efforts to have all Level 2 qualifications lead to a T-level risks overcorrecting the confusingly wide past range of VTQs. Evidence suggests that a wide range of vocational options in fact motivates students to take up VTQs outside of key stage 5.

34. To what extent does the current pre-16 vocational offer equip pupils with the necessary knowledge and skills and prepare them for further study options, including 16-19 technical pathways and/or A levels? Could the pre-16 vocational offer be improved?

N/A

Assessment and accountability

35. Is the volume of statutory assessment at key stages 1 and 2 right for the purposes set out above?

Assessments in Year 6 provide us with a good indicator as to the educational progress each child gains during primary education. However, when children make the transition from primary to secondary school, they typically spend Years 7-9 without progress check-ins and with a number of end point assessments taking place in year 10 and 11.

There are however examples of where assessment at this level can be introduced. In Wales, all state-educated children in years 2 to 9 take national, formative assessments in procedural numeracy, reading, and numerical reasoning every year. These assessments are designed to identify areas where children and teachers need to focus their efforts to make progress.

In the past, learners took these tests on paper. However, the Welsh Government decided to move the assessments to an on-screen format – a project that started in 2017.

AlphaPlus, part of the AQA group, led this multi-team project on behalf of the Welsh Government, developing technology and content for the new online assessments, and helping to deliver the national rollout across schools in Wales. The assessments are now taken by around 270,000 learners every year. When considering standardised assessments, such as SATs, they are often seen as detrimental to students' curiosity and enjoyment of learning, leading to disengagement; AlphaPlus-style assessments can offer a low-stakes, on-screen assessment to give teachers information about their students, rather than for external accountability measures.

36. Are there any changes that could be made to improve efficacy without having a negative impact on pupils' learning or the wider education system?

Yes, the formative assessments introduced in Wales as discussed in the response to Q.35 are online and fully adaptive and personalised, automatically adjusting the difficulty level of questions to match the learner taking the test. If the learner answers a question correctly, the next question they receive will be slightly more challenging; if the learner answers a question incorrectly, the following question will be slightly easier. Each learner therefore has a personalised assessment experience.

The assessments are entirely online. They require no local server or installation of software, and can be taken on desktop computers, laptops or tablets such as iPads or Chromebooks.

The on-screen assessments are designed to allow children with different access needs to fully demonstrate what they know and can do. For example, modified assessments are available to support learners with visual impairment.

The Welsh form of assessment helps identify the strengths and weaknesses of learners in detail by bringing in a suite of on-screen standardised diagnostic assessments which schools can use free of charge to investigate. They also make reports for teachers align to the way schools and teachers deliver education.

37. Are there other changes to the statutory assessment system at key stages 1 and 2 that could be made to improve pupils' experience of assessment, without having a negative impact on either pupils' learning or the wider education system?

N/A

38. What can we do to ensure the assessment system at key stages 1 and 2 works well for all learners, including learners in need of additional support in their education (for example SEND, disadvantage, EAL)?

On screen assessments, such as the one in Wales, give greater accessibility options for learners with specific disabilities such as visual impairment. This assessment tailors support and personalised learning for those learners in need of additional support in their education. The national data from assessments can be used to research and identify effective teaching and learning methods that support learners in need of additional support.

39. Is the volume of assessment required for GCSEs right for the purposes set out above? Are there any changes that could be made without having a negative impact on either pupils' learning or the wider education system?

Overall, AQA believes the assessment burden is too high, and steps should be taken to reduce the number of end point exams. The Guardian reported that young people are taking potentially up to 6 hours of exams in a single day and spending up to seven hours a day revising for those exams. Today, the average GCSE student should expect to sit around 30 hours of exams in the summer series. We think a wider range of assessment methods and parallel qualifications could be used, particularly with digital, to support the Department's social justice agenda. There are various approaches that – taken together – could substantially reduce the volume of end-point assessment required, outlined in more detail below.

Non-Examined Assessment (NEA) can be powerful in enabling more continuous assessment rather than end-loading the assessment. The Review should take a subject-by-subject approach to increasing the proportion of NEA in some subjects, while leaving others as examined only. For example, in creative subjects, such as GCSE Dance (60%), GCSE Drama (60%), and GCSE Design and Technology (50%), you could increase the proportion of NEA. When introducing NEA, we must be careful as NEA can increase teacher workload. One option to introduce NEA without substantial workload implications would be to have a model of continuous assessment that is marked by Awarding Organisations, rather than marked by centres and then moderated.

Teachers we have spoken to about this review noted how in the past some teachers taught students' specifically to the NEA mark scheme and this impacted those who did not teach in this way. Members of our Student Advisory Group highlighted some of the tensions in this space that whilst they like some coursework, too much could be tedious, but that coursework allowed them to have further depth in a subject that revising and memorising facts for exams might not.

We think content can be retained or trimmed in some subjects and the number of exam papers in others could be reduced while still retaining an academic core. Taking GCSE Maths as an example, there is a high content burden for GCSE Maths particularly at foundation tier. High content perpetuates the problem of mastery of the fundamental maths skills for lower attainers as there is insufficient time to 'master' fundamental knowledge before building further. Reducing the overall content at foundation tier

would also allow for a reduction in the end point assessment time – allowing two papers instead of three in our specification, without compromising validity. You could also trim content and cut down from three to two papers in higher without compromising validity.

Increasing modularity is another way to decrease the burden of assessments as it allows students to 'bank' part of their grade earlier in their course and reduce the volume of assessment at the end of Year 11. This is something that teachers we spoke to in our focus groups said they'd welcome, with one noting:

'Modular exams would spread the load and allow students to bank part of their qualification as they go. It's a fairer way to assess their progress, especially for those who struggle with the pressure of final exams.'

The volume of assessment needs to be looked at on an evolutionary, subject by subject basis to identify where modular could work and in what subjects it can be introduced without having a detrimental impact on the reliability of grades, or by adding to teacher workload. For example, GCSE Science could be assessed in a modular fashion in the first and second year of the course, thereby reducing end of course examination hours. In the previous model, students would gain a 'core' science qualification (year 1 module), though time was taken from teaching and learning in Year 10 to revise for exams and teachers entered students for repeated resits to boost marks. Instead, in future, we think digital solutions could help, for example through an on demand digital test to check foundational knowledge before progressing to more complex concepts and knowledge.

However, we should be mindful within this of not increasing the end point exams due to resits. Modularity can help reduce end-point over-examination, but a culture of re-sitting to improve early module scores can lead to increasing the overall assessment burden rather than reducing it. When modularity in GCSE was common, there was a requirement to take a minimum of 50% of the assessment weighting in the final assessment session, one option might be to set a maximum amount of assessment in the final session, thus preventing multiple re-sits. If we do propose moving any subjects to include a modular element, digital should be a core part of that and it should be done on an evolutionary basis. We should also look to lessons from past iterations of GCSEs and A-levels to consider where we go next.

A tiered approach to qualifications is another approach to reducing end point burden. GCSE English moved away from a tiered approach when the curriculum was last reviewed, however awarding organisations typically use 160 marks to differentiate all students into the 9 grades. The impact of having so many grades against relatively few marks is that grade boundaries are quite close together. Tiering can help some students access exam papers more easily and provide a greater spread of marks to map grade boundaries onto, thus increasing validity in some instances.

There are also subjects where we could have parallel track qualifications in the style of either a GCSE and/ or an additional qualification delivered primarily digitally, e.g. Maths GCSE and numeracy, Spanish GCSE and a language associated board style qualification.

Teachers we spoke to were positive about the role of digital in improving accessibility, but did express concerns about the potential of creating an uneven playing field. They noted the potential for digital to improve teacher workload, however several also noted how variable the provision was for IT provided in schools, not just for students but teachers as well. To ensure equal provision would involve investment from Government to help level the playing field.

40. What more can we do to ensure that: a) the assessment requirements for GCSEs capture and support the development of knowledge and skills of every young person; and b) young people's wellbeing is effectively considered when assessments are developed, giving pupils the best chance to show what they can do to support their progression?

We agree that there is too much end point examination at GCSE and that the burden on students is too high. A wider range of assessment methods and parallel qualifications could be used, particularly digital, to support and ready young people more effectively for the modern world and to improve social justice. Alternatives to exams are worth exploring and digital can help.

No assessment system is perfect, and trade-offs should be carefully considered. For example, we often prioritise valid assessment, even if the trade-off for this is a small drop in the absolute reliability of marking. AQA believes it is better to test a subject like GCSE English Literature through open-ended high-tariff assessment items, which really elicit what students understand about a text, rather than reducing the assessment to multiple choice items, but that trade-off must be accepted to enable this.

Not everything that is important must be assessed and not everything that can be assessed is important. It is for the Government to create a set of levers and measures, for example through teacher training and Ofsted, that work with the curriculum and assessment system to provide the right balance in driving high standards but also the wellbeing and flourishing of students.

41. Are there particular GCSE subjects where changes could be made to the qualification content and/or assessment that would be beneficial for pupils' learning?

The ordering of any reform and the 'follow through' effect should be factored in. An A-level should be reformed after a related GCSE, so that the prerequisite knowledge flows from one course to the other. There should also be better alignment across subjects. For example, GCSE Geography and Combined Science require different mathematical methods to GCSE Maths.

Below are several subjects where changes could be made:

GCSE English Language

- The narrow curriculum and focus on skills have led to 'teaching to the test' and so the subject has become too mechanistic. This leads to students becoming disengaged and demotivates teachers. Some of that is caused by re-instilling grammar that has been covered at KS2, which is also mechanistic, and that then flows into English Language GCSE. Specifications and texts need to match the modern world, and oracy and multi-modal texts should be included.
- The GCSE English Language spoken endorsement is also problematic as it places a high administrative burden on teachers. We should explore how this burden could be reduced with an increased emphasis on oracy.
- One suggestion is to explore how creative writing could better be assessed, making it more relevant to the creative writing process, eg planning, drafting and editing.
- Another solution would be to use digital technology for on-demand and adaptive assessment.

GCSE Maths

- There is a high content burden for GCSE Maths particularly at foundation tier. High content perpetuates the problem of mastery of the fundamental maths skills for lower attainers as there is insufficient time to 'master' fundamental knowledge before building further.
- Reducing the overall content would also allow for a reduction in the end point assessment time – allowing two papers instead of three, without compromising validity. This would be possible for both foundation and higher tiers.
- The current GCSE does provide the right pathway for intermediate (4-6) and higher (7-9) ability students but is failing lower attainers. Less content at core would provide the time to embed students' learning and address deep-rooted misconceptions built up over previous key stages. We have also created a numeracy qualification that allows students to demonstrate they are numerate alongside Maths GCSE. We think there is a real opportunity for all students to benefit from a music grade style approach to numeracy and digital fluency.

Geography

- In GCSE Geography there are two units of study, plus fieldwork expectations and decision-making geography. It has always been reported to be too much for teachers, and we are regularly questioned about how it meets Ofqual's criteria when it comes to guided learning hours (GLH). GCSE Geography also assesses 10% maths skills; however, the requirements exceed foundation maths. More consistency across maths in different subjects would be welcomed at reform. There are also 5% Spelling, Punctuation and Grammar (SPAG) marks available across all three components.
- A-level Geography is set up better to allow centres to refresh the content they teach by regularly updating case studies and examples. However, the current specifications contain some quite challenging, undergraduate level geography and there is a big gap between GCSE Geography and A-level Geography expectations. We are now seeing a decline in uptake.

Computer Science

This subject cries out for modernisation, with the opportunity to move to a wholly digital product at GCSE, including an on-screen programming exam, conducted inside a development environment that models the working world. This would better align to our A-level where there is already an on-screen programming exam. We are now developing the wholly digital product – rather than a staged approach.

GCSE Science

- We should improve the consistency between GCSE Science and GCSE Maths looking to align the maths skills taught in science with those taught in GCSE Maths.
- Science subject content could be assessed in a modular fashion, reducing end of course examination hours. A year 1 and year 2 module would be the most suitable option if pursued, similar to what was in place pre-2016 through core and additional science. Some teachers we have spoken to are not in favour of this approach as they feel it potentially encouraged repeat resits to boost marks. Having said that, changes to the rules surrounding early entry may be sufficient to mitigate against this.

History

At GCSE, history has not included NEA since reform and many teachers we speak to are nervous about it coming back from a workload perspective. That said, the recent adoption of different forms of NEA in the new Welsh GCSEs (first teaching 2025) shows what could be considered. Notably, these changes include one piece of NEA being set and marked by the exam board which may be worthy of discussion and would certainly be popular with teachers. We also know that the span of history taught presents challenges in terms of content volume: it could be trimmed. At A-level, there is an extended essay, but we know teachers have concerns that students are increasingly using AI. In the absence of a mechanism for handling the use of AI in NEA (long essays), we would be cautious about reintroducing it.

Dance and Drama

There are criticisms that the subjects are too theoretical, and that the NEA level could increase to fix this (currently 60% NEA). This would allow for an even stronger focus on practical performance and design skills. As one teacher observed, students that choose drama or dance choose them to *do* drama or dance rather than write about them.

42. Are there ways in which we could support improvement in pupil progress and outcomes at key stage 3?

AlphaPlus, part of AQA Group, is the lead contractor for national testing in Wales and Scotland for children aged 9-14. They utilise on-screen assessment to give teachers information about their students, rather than for external accountability measures. These are adaptive. Using large databases of questions, an algorithm judges which questions should be presented to each student. If they're answered correctly, the student gets harder questions; if not, different questions are presented before the student can progress further: this allows the programme to assess the level a student is at, as well as giving teachers an idea of the student's 'strengths' and 'weaknesses'.

43. Are there ways in which we could support pupils who do not meet the expected standard at key stage 2?

N/A

44. To what extent, and in what ways, does the accountability system influence curriculum and assessment decisions in schools and colleges?

The accountability system can have substantial influences on what is happening in the classroom, but whether these are positive or negative are down to the particular accountability measure.

Attainment 8 and Progress 8 are good measures which focus on driving up overall exam performance and on ensuring that students make progress over their time in education. AQA argue that to increase the breadth of study for students at KS3 and KS4, the suite of subjects in which progress is measured should be reevaluated to include more creative subjects. On the other hand, EBacc has led to a reduction in the breadth of subjects studied by students and so AQA argue that it should be discontinued.

45. How well does the current accountability system support and recognise progress for all pupils and learners? What works well and what could be improved?

N/A

46. Should there be any changes to the current accountability system in order to better support progress and incentivise inclusion for young people with SEND and/or from socioeconomically disadvantaged backgrounds? If so, what should those changes be?

N/A

Qualification pathways 16-19

47. To what extent does the range of programmes and qualifications on offer at each level meet the needs and aspirations of learners?

a. Level 3
b. Level 2

It is not only possible but desirable to improve skills-based assessment while keeping a focus on core academic subjects and knowledge, and we provide some thoughts below on areas which can support the needs and aspirations of learners.

Our system supports academic students to succeed but does not work as well as it should for others. All students can benefit from an on-demand, when-ready approach to numeracy assessment, including those who are continually resitting.

AQA research, including original survey findings of 2,032 young people aged 18-25 in England and a representative survey of 500 recruiters in England shows that:

- 31% of young people somewhat or strongly disagreed that "I had enough opportunity to develop my soft skills during my pre-18 education".
- There is a mismatch between how young people evidence their life skills and how employers assess the life skills of new recruits – around half of young people said they used their GCSEs to demonstrate their life skills, but only 14% of recruiters used them in this way.
- There is a mismatch between what life skills young people think employers want and the skills employers typically consider when hiring – for example, time management was cited by 55% of young people but only assessed by 29% of recruiters; and different employers prioritise a range of different life skills – there was no single skill that a consistent majority of employers considered when hiring.

A Public First report in association with Unison and the NAHT also highlighted how much parents value breadth of curriculum, at primary level but also more broadly – favouring maths and English as well as wider subjects and skills, for example communication and British values.

As AQA set out in late 2023, there is no agreed definition of what is meant by a baccalaureate. One thing common to baccalaureates tends to be their encouragement of curriculum breadth, but on the other hand, 'baccalaureate' models do not typically have a joint academic-vocational route. For example, the French Baccalaureate has an academic and a vocational stream, which do not mix. A future curriculum therefore must address how to give young people a broader range of skills and qualifications at KS4 and 5 while still giving them the core academic content they need.

We believe a first step in this direction could be to prune the content of some GCSEs to allow for greater flexibility in the curriculum. That could provide more teaching time to introduce a project-based qualification alongside GCSEs, or increased opportunities for other enrichment, such as creative and sporting pursuits and work experience.

Any project qualification should be modelled on AQA's existing Higher Project Qualification, which is the KS4 version of the Extended Project Qualification. These qualifications allow young people to choose a subject that matters to them, be that a hobby, interest or academic passion, and turn it into an essay or 'artefact' for assessment against a clear and consistent framework for that level. These qualifications originate in diplomas and were specifically designed to combine content and skills.

The benefit of project-based qualifications is that they assess a range of skills – for example, students can be assessed through an oral presentation or a longer written report – and in many ways they mimic the world of work. You can read about 2023's winner of AQA's EPQ awards, who wrote her EPQ on 'Cages through the Ages'. AQA research has shown that students who take an EPQ are on average 22% more likely to obtain A* to B grades in their A-levels than students who do not complete an EPQ. EPQs also help students develop a self-regulated approach to their learning, which can have substantial benefits for later learning. As Project Qualifications are assessed against multiple objectives over the course of their project, this also puts less weight on the end point artefact.

Of course, such a programme would still have its challenges. Like coursework, assessment would need to be undertaken by teachers and then moderated at an exam board level, which introduces greater teacher workload and the potential for discrepancies. Similar to coursework, it would be open to issues with schools with more resources and families being able to provide more support to students. However, we believe these issues are surmountable, by combining rigorous moderation with more in-person teacher assessment (such as oral presentations or reports written under assessment conditions, rather than at home). In future, this could all form part of an e-portfolio model.

c. Level 1 and entry level

N/A

48. Are there particular changes that could be made to the following programmes and qualifications and/or their assessment that would be beneficial to learners:

a. AS/A level qualifications

We could expand the breadth of A-level study, by lessening the amount of content studied, whilst keeping broad options available for students, particularly those in Year 12. This could see the inclusion of an EPQ or vocational/technical qualification, looking again at the AS to A2 model, or introducing a new 'minor' subject approach, with vocational mixed in.

Teachers we spoke to as part of the consultation process told us they liked the idea of flexibility in the system, allowing students to combine A-level and vocational qualifications as it 'widens opportunity for the future'. They added that employers want young people to be able to operate in a workplace environment, and if it's too narrow it makes the transition into work more difficult.

b. T-level and T-level Foundation Year programmes

T-levels need to be reformed so that they are more fit for purpose and there should be greater scope for mixed programmes of study across vocational and academic. AQA believes the intention behind T-levels is laudable, but do not believe they are delivering the intended benefits, as shown by the high dropout

rates and low take-up. To make them viable we believe there are several changes that should be considered:

- There should be a commitment to the long-term future of the qualification, which will hopefully come following the pause and review of Level 3; this will give exam boards greater confidence in investing in their development. As they are structured today, they are undeliverable at the current scale and not an attractive proposition for awarding organisations to deliver.
- The delivery costs should be considered and should either be reduced or a way of sharing the high delivery costs should be devised to improve financial viability, especially but not only for low-entry T-levels.
- The components could be broken out so that parts of existing T-levels can be taken independently, to introduce a level of modularity. In any event, the equivalence to three A-levels should be abandoned, as it creates an all-or-nothing cliff edge for those who drop out.
- Assessment design should be remodelled to work better for students and be simpler for exam boards to deliver.
- The way in which the industry placement operates should be reconsidered to make the qualification more deliverable.

c. Other applied or vocational qualifications at level 3

N/A

d. Other applied or vocational qualifications at level 2 and below

N/A

49. How can we improve learners' understanding of how the different programmes and qualifications on offer will prepare them for university, employment (including apprenticeships) and/or further technical study?

Better careers information and guidance at earlier stages of the curriculum would help highlight what careers paths are available and the educational requirements needed to reach them. Through having exposure earlier in the curriculum this allows students more time to consider the range of options available and whether a technical, general or mixed programme of study is the most appropriate course to follow. As we have argued in FE Week, there are substantial gains to be made from managing the perception of qualifications, rather than only focussing on their structure and design.

50. To what extent is there enough scope and flexibility in the system to support learners who may need to change course?

Not enough flexibility is built in. If learners end their course after the first year of A-level study, they do not receive recognition of achievement at this point. As noted in our response on T-levels, more flexibility also needs to be built in to allow for credits and prior learning to be recognised. T-levels have a significantly higher dropout rate than other courses, but students who drop out midway through their T-level course leave with nothing. Retention rates for most A-levels and other equivalent qualifications are consistently above 90%. In comparison, only 71% of the students who started a T-level in 2022 finished the two-year programme. Recent EPI research found nearly one in three students taking a T-level in

health and science drop out in their first year, and a third of those on legal, finance and accounting courses do not complete the course.

51. Are there additional skills, subjects, or experiences that all learners should develop or study during 16-19 education, regardless of their chosen programmes and qualifications, to support them to be prepared for life and work?

N/A

Transitions, technology and other issues

52. How can the curriculum, assessment and wraparound support better enable transitions between key stages to ensure continuous learning and support attainment?

To ensure transitions between key stages are successful, regular, low-stakes assessment needs to underpin them. This style of assessment enables progression through the diagnosis of gaps in learning and skills and can identify interventions to support learners' specific needs. Throughout transitions, progress is best enabled through a combination of effective and varying assessments linked to curriculum and clearly defined learning objectives.

Identifying the connections between these across the key stages and into general qualification specifications and high-stakes assessments is required to provide a clear framework for planning, delivery and identification of performance (below, at, high) at regular intervals. Different modes of assessment can be used to support learning and diagnosis of issues and competency are needed to support this effectively.

AQA Stride – AQA's new GCSE Maths readiness test – is one such programme. It is available entirely digitally, with automatic marking, to enable teachers to quickly and easily find gaps in their students' learning. AlphaPlus, one of AQA's subsidiaries, is the lead contractor for national testing in Wales and Scotland for children aged 9-14. They utilise digital assessment to give teachers information about their students, supporting them to target interventions where needed.

Delays can have a huge impact for some SEND students who change institutions from school to college and struggle to rollover their accessibility arrangements; digital exams could manage this transition more effectively.

53. How could technology be used to improve how we deliver the curriculum, assessment and qualifications in England?

This Curriculum and Assessment Review is the first serious look at curriculum and assessment in a decade. If the Review is to set the direction for the next decade and beyond, it needs to have digital at its heart. A core assumption of this review should be that digital exams in GCSEs and A-levels will be a reality, at least in some components of some subjects, by the end of this Parliament. Digital is key to better outcomes, fairness and more inclusivity and, crucially, will eventually lead to a lower cost.

A particular example was highlighted by a member of our Student Advisory Group, who noted that for Computer Science it would be much better to have a practical on-screen exam to do coding there instead of writing it out. Another young person highlighted that it was only during her degree that she was using a computer to write her English responses, something that she felt much better prepared her for the world of work.

Digital exams also more easily support accessibility requirements, including coloured overlays and text enlargement. Delivery of digital question papers allows for greater inclusivity in assessment and most students can complete their exams independently with assistive technology (eg without a scribe, without an interlocutor and without having to be in a separate enclosed space). A recent Department for Education report (2022) found that one of the key benefits of introducing EdTech in schools and colleges

was increased engagement and confidence for students with SEND; findings from a current study by AQA (2022) reflect this. Many SENCOs were excited about the potential for digital exams to increase students' sense of independence; they felt that, in some cases, it would reduce the need for certain access arrangements. We are planning to adopt a universal design approach to our digital assessments, embedding accessibility throughout our digital approaches, in line with the good example of other organisations. Universal design could increase options for personalisation and reduce the demand for additional access arrangements, although it will not eradicate the need for them.

There are the environmental benefits too; analysis we have undertaken indicates an estimated reduction of 9% in the amount of carbon emitted per exam (as measured in kg of CO_2 per exam event) by moving from paper to digital. With the average student taking around eight GCSEs, with many courses requiring multiple exams, over the average lifespan of an ICT device, this reduction could compound into a considerable difference – indeed, 9% is based on a conservative set of assumptions, and this figure could be significantly higher. Digital exams, in this way, could help the Government and education system deliver on Net Zero goals.

We are developing new types of assessments of the core numeracy knowledge and skills for work and life, including a specific digital numeracy qualification. In Wales and Scotland, all children in primary and secondary schools take millions of on-screen assessments of literacy and numeracy each year delivered by AlphaPlus, part of AQA. These assessments adapt to students' pace and ability and provide immediate personalised feedback and timely information to improve teaching and learning. These real-world examples offer options in terms of alternative methods for assessing students' performance at a national level, particularly at KS3 where there is no national assessment currently.

Digital assessment practises also have implications for teacher workload. Regular use of auto and assistive marked digital assessments (of the types outlined above) can provide schools with a scalable and efficient means of benchmarking performance, identifying gaps in skills and knowledge, and delivery of timely interventions to address these at an individual and group level without lengthy marking and data analysis by teachers. Combining results from assessments with other forms of data (including demographic information and curriculum metadata) and AI has the potential to provide a truly personalised approach to improving learners' opportunities to progress.

To move to digital exams in GCSEs in England is a substantial ask and will have implications for the school IT estate and infrastructure. BESA statistics from 2020 show that the average secondary school has 386 computers, with a large amount of variation between the type of device, capability, and age of the devices. This is why we are proposing to roll out digital exams slowly, in a measured way. We will start in small-entry subjects and only in certain components – for example the Reading and Listening components of GCSE Italian and GCSE Polish. Without a fundamental commitment to moving to a more digitally assessed education system, this review risks not delivering genuinely revolutionary practices in an evolutionary way.

When we spoke to our Student Advisory Group about their thoughts on this, they said that incorporating more technology in the curriculum would be beneficial for progression into the workplace, as many careers rely on digital knowledge and skills in the workplace. They did however caution against going too quickly, pushing students to spend all their time on screen, and the need to train teachers comprehensively if technology is introduced in the classroom.

54. Do you have any further views on anything else associated with the Curriculum and Assessment Review not covered in the questions throughout the call for evidence?

Artificial Intelligence (AI) and the use of large datasets has enormous potential to improve education. Using these tools effectively can decrease teacher workload, create efficiencies in the assessment process and potentially support students' learning. Use of data also supports targeted intervention, both at student, school and system level. AI can have useful benefits for teacher workload through co-creation of resources and materials. Similarly, AI can be trained to mark students' work which could ease the workload of teachers.

However, any use of AI and data must be ethical, with due consideration given to the reliability, effectiveness and scalability of any tools. As AI is fallible and unaccountable, guardrails must be in place to ensure that any decisions reached by AI are overseen by a human. AQA is working to create a set of overarching principles which must guide any implementation of AI in the education sector, if it is to improve outcomes for students. AI must:

- Add clear value to teaching, learning and assessment, avoiding common pitfalls such as bias and information that is harmful or inaccurate
- Have equality of access, a level playing field, so disadvantaged schools do not get left further behind
- Not inadvertently put schools at risk, for example with intellectual property issues.

Furthermore, the rise of AI tools like ChatGPT raises concerns around how coursework might be compromised by external tools, emphasising the need for assessments that can verify students' individual work authentically. We already know that A-level History and English Literature teachers report that many students are attempting to use AI in their coursework.