

# **AS and A Level Geology**

Consultation on Conditions and guidance



March 2016

Ofqual/16/5884

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## **Introduction**

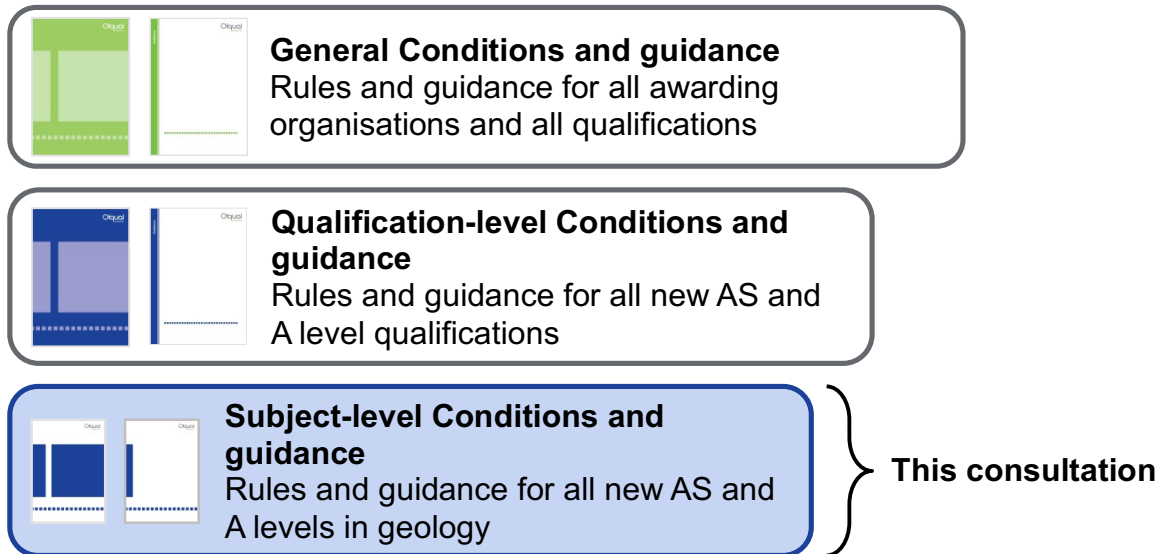
- 1.1 As most readers will know, changes are being made to GCSEs, AS and A levels taken by students in England. New AS and A level qualifications in geology will be taught in schools from September 2017.
- 1.2 The Department for Education (DfE) published the subject content for AS and A level geology<sup>1</sup> in March 2016.
- 1.3 Following our own consultation on assessment arrangements for these subjects, we confirmed<sup>2</sup> in March 2016 that new AS and A levels in geology will:
- not be tiered; and
  - include no marks for non-exam assessment that contribute to the alphabetical grade.
- 1.4 We also confirmed the assessment objectives for AS and A level geology.
- 1.5 The subject content includes some requirements that will be reflected in our assessment requirements. New AS and A levels in geology will:
- require each student to complete geology fieldwork as set out in the subject content;
  - require at least 15 per cent of the total marks for the qualification to reward geological skills and techniques;
  - require at least 10 per cent of the total marks for the qualification to reward the use of mathematical skills;
- and additionally, at A level:
- require each student to complete at least 12 practical activities; and
  - include a separate assessment of students' practical skills, the outcome of which will be separately reported on the qualification certificate alongside the lettered grade.

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<sup>1</sup> <https://www.gov.uk/government/publications/gce-as-and-a-level-geology>

<sup>2</sup> <https://www.gov.uk/government/consultations/developing-geology-politics-and-pe-short-course-for-2017-teaching>

## Scope of this consultation



1.6 This consultation builds on our – and DfE’s – earlier decisions. It seeks views on the subject-specific rules and guidance we should put in place for AS and A level geology.

1.7 As explained in Appendix A, and illustrated in the figure above, these new rules and guidance will sit alongside our existing rules and guidance for

- all qualifications,<sup>3</sup> and
- all new AS and A level qualifications.<sup>4</sup>

1.8 This document sets out and seeks views on:

- our proposed approach to regulating new AS and A levels in geology; and
- the subject-specific Conditions, requirements and guidance we propose to introduce to implement that approach.

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<sup>3</sup> [www.gov.uk/guidance/awarding-organisations-understanding-our-regulatory-requirements#requirements-for-all-awarding-organisations-and-all-regulated-qualifications](http://www.gov.uk/guidance/awarding-organisations-understanding-our-regulatory-requirements#requirements-for-all-awarding-organisations-and-all-regulated-qualifications)

<sup>4</sup> [www.gov.uk/government/collections/new-a-level-and-as-level-qualifications-requirements-and-guidance](http://www.gov.uk/government/collections/new-a-level-and-as-level-qualifications-requirements-and-guidance)

## How to respond to this consultation

The closing date for responses is **15 April 2016**.

Please respond to this consultation in one of three ways:

- Complete the online response at <https://www.surveymoz.com/s3/2659654/AS-and-A-level-reform-regulations-for-geology>
- Complete the consultation questions at the end of this document and email your response to [consultations@ofqual.gov.uk](mailto:consultations@ofqual.gov.uk). Please include the consultation title (AS and A level Geology Consultation 2016) in the subject line of the email and make clear who you are and in what capacity you are responding; or
- Post your response to: AS and A level Geology Consultation 2016, Ofqual, Spring Place, Coventry Business Park, Herald Avenue, Coventry, CV5 6UB, making clear who you are and in what capacity you are responding.

## Evaluating the responses

To evaluate responses properly, we need to know who is responding to the consultation and in what capacity. We will therefore only consider your response if you complete the information page.

Any personal data (such as your name, address and any other identifying information) will be processed in accordance with the Data Protection Act 1998 and our standard terms and conditions.

We will publish our evaluation of responses. Please note that we may publish all or part of your response unless you tell us (in your answer to the confidentiality question) that you want us to treat your response as confidential. If you tell us you wish your response to be treated as confidential, we will not include your details in any published list of respondents, although we may quote from your response anonymously.

Please respond by **15 April 2016**.

## Regulating AS and A level geology

### Compliance with subject content and assessment objectives

- 2.1 As we explained in paragraph 1.2, DfE has published the subject content for new AS and A levels in geology.<sup>5</sup>
- 2.2 One of the ways we ensure new GCSE, AS and A levels are comparable across exam boards is by requiring them to be in line with the relevant subject content and our assessment objectives.
- 2.3 The approach we have taken in every other new GCSE, AS and A level qualification is to introduce subject-specific Conditions which:
- require exam boards to comply with the requirements of the subject content (and have regard to any guidance within the subject content); and
  - require exam boards to comply with our assessment objectives (and have regard to our guidance on those assessment objectives).
- 2.4 In all other subjects this Condition includes a provision which requires exam boards to interpret the subject content in line with any rules we set and to have regard to any guidance we publish. Although we do not always specify how the subject content should be interpreted, we think it is important for us to be able to do so when there is a good reason for that (for example, if a different interpretation could compromise qualification standards or comparability).
- 2.5 We see no reason to take a different approach for geology. We are therefore proposing that we should introduce a Condition which requires exam boards to:
- comply with the requirements (and have regard to any guidance) set out in the subject content – this includes requirements and guidance in the new appendices;
  - comply with any requirements (and have regard to any guidance) we publish on interpreting the subject content; and
  - comply with our assessment objectives (and have regard to our guidance on those assessment objectives).

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<sup>5</sup> <https://www.gov.uk/government/publications/gce-as-and-a-level-geology>

**Question 1: To what extent do you agree or disagree that we should introduce a Condition which requires exam boards to comply with the relevant subject content and assessment objectives?**

### **Guidance on assessment objectives**

- 2.6 For all other new GCSE, AS and A level qualifications, we have published guidance which explains how exam boards should interpret our assessment objectives. This is designed to ensure exam boards have a common understanding of – and take a consistent approach to targeting – the different assessment objectives.
- 2.7 We are proposing we should introduce similar guidance for AS and A level geology.

**Question 2: To what extent do you agree or disagree that we should introduce guidance which clarifies how exam boards should interpret our assessment objectives?**

### **Rules and guidance for exam assessment**

- 2.8 In a number of other new GCSE, AS and A level subjects, we have specified rules which cover how specific areas of the subject content should be assessed. We normally do this where we think it is important exam boards take a consistent and comparable approach to assessing an area of content (in terms of the weighting assigned to that content area and/or the types of question used to target it).
- 2.9 For example, the subject content for the new science GCSEs, AS and A levels which have been developed for first teaching from September 2015 and September 2016 includes:
- mathematical skills that students should be able to demonstrate; and
  - practical skills that should be indirectly assessed in exams.
- 2.10 In these subjects, either we or the DfE have set minimum proportions of exam marks which must be allocated to these content areas, and we have specified further rules around how they should be assessed.
- 2.11 The subject content for AS and A level geology includes specified mathematical skills and geological skills and techniques which students should know and understand.

2.12 We believe we should take a similar approach to regulating exam assessments as we have in other subjects. So we are proposing to introduce rules so that exam boards take a consistent approach to assessing mathematical skills and geological skills and techniques in AS and A level geology.

**Question 3: To what extent do you agree or disagree that we should introduce rules for exam assessment to ensure exam boards take a consistent approach to assessing mathematical skills and geological skills and techniques in AS and A level geology?**

### **Assessing mathematical skills in exams**

2.13 The subject content requirements for geology specifies the mathematical skills that students taking AS and A level geology should know and understand.

2.14 We want to make sure that all exam boards take a consistent approach to assessing students' mathematical skills. We also want to make sure that mathematical skills are assessed in a way which is appropriate to the subject. In particular, we want to make sure that:

- mathematical skills are assessed at a comparable level of demand across exam boards;
- mathematical skills are assessed in the context of other areas of the subject content (and not in isolation); and
- students across the ability range have opportunities to access marks for mathematical skills (and these marks are not simply targeted at higher or lower ability candidates).

2.15 To do this, we are proposing to set rules which require exam boards to:

- assess mathematical skills in the context of other areas of the subject content, and not in isolation;
- allocate 10 per cent of the marks for the qualification to reward use of mathematical skills at a level of demand which is at least equivalent to higher tier GCSE mathematics; and
- assess mathematical skills across a range of levels of demand which supports effective differentiation between candidates.

**Question 4: To what extent do you agree or disagree with our proposed approach to assessing mathematical skills in exams for AS and A level geology?**



## **Assessment of Learners in relation to geological skills and techniques**

- 2.16 The subject content specifies geological skills and techniques which must be developed in AS and A level geology qualifications. These skills must be developed through a combination of teaching and study, fieldwork and additionally at A level, practical activities.
- 2.17 The marks that contribute to a student's lettered grade in AS and A level geology will come entirely from the written examinations, and will not include any marks for non-exam assessment. In their written exams, students will be required to demonstrate their understanding of geological skills and techniques. The exams will contain questions that specifically draw on the experience students have gained from doing fieldwork and practical work.
- 2.18 At least 15 per cent of the total marks available in each AS and A level qualification in geology will be dedicated to this. This proportion is large enough to have a significant effect on a student's grade, but not so large as to distort assessment or hinder coverage of other requirements in this subject.
- 2.19 These questions will assess the student's knowledge and understanding of geological skills and techniques across the three assessment objectives for AS and A level Geology. This will ensure that questions draw on both theoretical and technical aspects of these skills and techniques.
- 2.20 To ensure that all of the subject content is assessed throughout the lifetime of the qualification, we propose that the skills and techniques are sampled in each set of assessments so that they are all covered in the shortest time that is reasonably practicable. We are not requiring that the subject content is covered over the shortest time possible, as we recognise that this could, over time, lead to predictable assessments – as it would be possible to spot the skills and techniques that have not been covered in the exams, and work out which are likely to/will come up on later exams.
- 2.21 To do this, we are proposing to set rules which require exam boards to ensure that:
- students' knowledge, skills and understanding of geological skills and techniques are assessed across all of the assessment objectives;
  - the number of marks that reward students' knowledge, skills and understanding of geological skills and techniques is at least 15 per cent of the total marks for the qualification;
  - questions on these aspects draw on and combine theoretical and technical aspects of these skills and techniques; and

- exam boards cover the relevant skills from the subject content over the shortest period of time that is reasonable practical.

**Question 5: To what extent do you agree or disagree with our proposed approach to assessing geological skills and techniques in exams for AS and A level geology?**

## Rules for practical skills assessments and fieldwork

### Practical skills

- 2.22 In some new AS and A level qualifications we have specified requirements for assessing aspects of the subject content which students must complete, but which are either not directly assessed (for example, students are asked questions in the exam that draw on knowledge they have gained from completing an activity), or which are assessed, but do not contribute to the calculation of the overall lettered grade for the written exam (students that meet the required standard pass the assessment, but this is not used to calculate the alphabetical grade).
- 2.23 For example, the subject content for new A level science qualifications requires students to complete 12 practical activities. Students must complete these activities and the written exam includes questions which specifically draw on the experience students have gained from doing practical work. Centres must confirm that students have completed the practical activities and students must keep a record of these activities. The student receives a separately reported result on their certificate to indicate whether they have passed the practical skills assessments.
- 2.24 The subject content for AS and A level geology includes appendices which set out:
- practical skills which must be developed through teaching and study and on which students must be indirectly assessed; and
  - practical skills which must be developed through fieldwork and on which students must be indirectly assessed.
- 2.25 In addition, at A level, the subject content includes:
- practical skills which must be developed through teaching and study on which students must be directly assessed.

2.26 We propose to follow a similar approach to regulating these aspects as we have taken for practical assessments in GCE science subjects<sup>6</sup> to ensure a consistent approach to the assessment of practical skills and fieldwork.

### **Completion of practical skills activities**

2.27 The subject content for A level geology requires that students complete at least 12 practical activities throughout their course of study. Individual exam board specifications may require more than this, and schools will also be free to do more practical work than is in the specification. If students have not completed and passed the practical skills activities, then they will not receive the separately reported 'Pass' grade.

2.28 Within these practical activities, exam boards will set out the apparatus that students should use and the techniques they should develop. These practical skills will be assessed through a combination of direct and indirect assessment.

2.29 For all practical skills, whether directly or indirectly assessed, centres will be required to provide a statement to the awarding organisation confirming that they have taken all reasonable steps to ensure that each student has completed at least 12 practical activities.

2.30 Students will be required to keep contemporary records of their practical work. Schools will be free to use any form of record-keeping they see as suitable, and which fits in with their teaching approaches and learning styles. The records should be used as a way to help students learn. They do not need to be formal documents, but should give accounts of practical work carried out and what the student learnt from doing that work. The records will not be marked by schools or exam boards, but schools must be able to confirm to exam boards that their students have kept a record of their work. Exam boards can request that schools make these records available to them. It is important that these records are kept and that schools provide this confirmation to awarding organisations as the practical activities are key aspects of the subject content and it is important to ensure that students complete them.

2.31 To do this, we propose to put in place rules that require an exam board to:

- require that at A level, each student completes at least 12 practical activities which cover the requirements set out in the subject content;

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<sup>6</sup> See <https://www.gov.uk/government/publications/gce-subject-level-conditions-and-requirements-for-science>

- set out clearly in its specification the practical activities that students must complete;
- require centres to provide a practical skills statement confirming that the student has completed the practical activities;
- require students to keep a record of the practical activities they have undertaken; and
- treat any failure by a centre not to complete and return the practical skills statement as malpractice and/or maladministration.

**Question 6: To what extent do you agree or disagree with our proposed approach to the completion of practical skills activities for A level geology?**

### **Assessment of practical skills**

2.32 The A level geology subject content requires that some practical skills are directly assessed and that some are indirectly assessed.

#### *Indirectly assessed practical skills*

2.33 For those practical skills that are indirectly assessed, we have set out our approach under the *Assessment of Learners in relation to geological skills and techniques* section above.

2.34 Centres will be required to confirm that students have completed the required activities and exam boards will be required to ensure that a minimum of 15 per cent of the overall marks for the examination reward students' knowledge and understanding of these skills and techniques.

#### *Directly assessed practical skills*

2.35 For practical skills that are directly assessed, students will not receive a separate mark which contributes to their overall grade for the written exam. Instead, the student's certificate will indicate whether they have met the required standard for these assessments. Students that meet the required standard will be awarded a 'Pass'.

2.36 Where practical skills are directly assessed, we propose to put in place arrangements to make sure that this happens as consistently as possible across the different exam boards, and with the approach that we have taken for A level science practical assessments.

- 2.37 We propose to lift General Condition H2 (of our General Conditions of Recognition<sup>7</sup>), which requires exam boards to moderate marks whenever an assessment is marked by a school. We propose to lift this rule to make provision instead for a more tailored monitoring regime. Practical skills assessments could only be effectively moderated by exam boards if schools made an audio-visual recording of all students undertaking the practical assessments. Such a requirement would be unduly burdensome. We propose instead to require exam boards to monitor how schools are providing and marking the assessments, thus ensuring that an appropriate quality assurance mechanism is in place.
- 2.38 We also propose to lift GCE 4.1 (one of our GCE Qualification Level Conditions which apply to all reformed AS and A levels). This Condition requires all assessment to be by exam. By lifting this Condition, we will allow the practical assessments to take place.
- 2.39 As set out above, we are proposing a Condition that obliges exam boards to require schools to provide the exam board with a statement confirming that the school has taken reasonable steps to secure that students have both completed 12 practical activities, and made a contemporaneous record of their work. This reflects the approach that we have taken in other subjects (for example practical skills in GCE science), and the importance of the practical science assessment in A level geology.
- 2.40 In the event that an accurate practical science statement is not submitted by a school, then this could be treated as maladministration or malpractice depending on the reason for school's failure to submit the statement. If it was an unintentional error (for example the statement was completed but sent to the incorrect email address) then it is likely that this would be treated as an incident of maladministration. However, if the failure to submit an accurate statement was intentional, then this is likely to be treated as an incident of malpractice.

**Question 7: To what extent do you agree or disagree with our proposed approach to the assessment of practical skills for A level geology?**

### **Marking and monitoring of practical skills assessments**

- 2.41 We propose to require exam boards to make sure that the practical skills assessments taken by students allow them to demonstrate the required skills and that these can be marked and that exam boards monitor this to ensure that the activities are carried out as intended.

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<sup>7</sup> [www.gov.uk/government/publications/general-conditions-of-recognition](http://www.gov.uk/government/publications/general-conditions-of-recognition)

### *Marking*

- 2.42 Students are likely to take their practical assessments at different times throughout the course. In view of the number of different skills they must demonstrate and the number of students who will be taking the assessments, it would be unmanageable for the exam boards to mark the assessments directly. Our proposed requirements therefore provide for teachers to mark the assessments. However, it might occasionally be necessary for alternative marking arrangements to be made – for example, if a teacher in a small school is unexpectedly absent. The draft requirements therefore permit the exam boards to mark the assessments too.
- 2.43 We propose that exam boards should set out in their assessment strategies the steps they will take to reduce the risk that the assessments will not be properly conducted or marked.
- 2.44 We also set out in the proposed requirements the competencies that students must demonstrate in order to be awarded a ‘Pass’ and the assessment criteria that markers must use when determining whether a student has demonstrated the required competencies. This will ensure that all students are assessed using the same criteria regardless of the exam board that is awarding the qualification. It will also enable students to carry forward their practical skills result if they decide to resit their written exams either with the same or with a different exam board.
- 2.45 We are proposing that in order to be awarded a ‘Pass’, a student must consistently and routinely demonstrate all of the competencies by the end of the course. The reason we are proposing to require that all of the competencies must be met, rather than allowing for students to meet just some, or even most of them to be awarded a ‘Pass’, is that this assessment is competence-based. There are a number of things that students must be able to do at an acceptable level. It would not be suitable within this assessment to allow strengths in some areas to counterbalance weaknesses in others; except where relative weaknesses are still of a Pass standard or above. For example, if a student cannot work safely, that would be a significant issue, and it would not be appropriate to allow for this to be compensated for by another competency, such as their ability to use appropriate software and/or tools to process data, carry out research and report findings.

### *Monitoring*

- 2.46 We propose that exam boards must monitor how schools provide their students with opportunities to take the practical skills assessments and how they mark them. Such monitoring will provide an extra safeguard that students are being given appropriate opportunities to develop their practical skills. The frequency of

monitoring and the number of subjects looked at during a monitoring visit will affect the resources that both schools and exam boards devote to monitoring

2.47 The approach we are proposing is similar to that used in A level science subjects.

2.48 For A level science, our rules permit all three subjects (biology, chemistry and physics) to be included in the same monitoring arrangements. We recognise however that the risks for geology differ and in some centres, geology teaching and resources may be more closely aligned to geography departments than to science departments. In addition, given the differences between geology and the science subjects, including geology within these monitoring arrangements may have an impact on how A level sciences are monitored. There is a risk that arrangements for geology might distort the number of visits for biology, chemistry and physics, which have bigger cohorts.

2.49 We are therefore proposing that geology is not included within the same monitoring arrangements as the A level science subjects (meaning that monitoring of the practical skills assessments would need to take place for both science and geology within a centre offering both subjects). This would not, however, preclude an exam board from arranging a coordinated visit – i.e. sending an appropriately trained individual to perform the monitoring activities for both science and geology. We would welcome views on this aspect of our proposals.

2.50 As with A level science, we propose in our draft requirements that each exam board must make sure that a school's geology practical skills assessments are monitored at least once in a two-year period.

2.51 We are proposing that where an exam board's monitoring of A level geology practical skills assessments identifies an issue relating to the delivery or marking of those practical skills assessments within a school, the exam board must inform any other exam board for whom that school delivers A level practical science assessments. This is because it is possible that the same issues with the delivery or marking of practical skills assessments may be taking place in other subjects, and it is important that other exam boards are made aware of this so that they can take the appropriate steps to deal with those issues across the full range of subjects.

**Question 8: To what extent do you agree or disagree with our proposed approach to marking of practical skills for AS and A level geology?**

**Question 9: To what extent do you agree or disagree with our proposed approach to monitoring of practical skills for AS and A level geology?**

## Certificate requirements

2.52 Conditions 13 and 14 of our General Conditions of Recognition require exam boards to issue certificates which comply with any certificate requirements that we publish and which are accurate, complete, clear and readily capable of being understood by users of qualifications. We already publish certificate requirements that apply to all qualifications.<sup>8</sup> We are proposing to publish additional specific requirements that set how outcomes for A level practical skills assessments for geology are to be reported on certificates.

2.53 Our proposed certificate requirements mean that:

- students will only get a certificate if they achieve at least a grade E in the examined part of the qualification;
- the result of the practical skills assessment will be reported on certificates, as either 'Pass' or 'Not Classified'; and
- if a disabled student is exempt from the practical skills assessment, the information on his or her certificate will be presented in line with our approach to exemptions in other qualifications (which is set out in our Specifications in Relation to the Reasonable Adjustment of General Qualifications<sup>9</sup>).

**Question 10: To what extent do you agree or disagree with our proposed approach to certificate requirements for AS and A level geology?**

## Fieldwork

2.54 The subject content for AS and A level geology requires students to undertake fieldwork and for awarding organisations to require evidence of this fieldwork in the form of a written statement from centres.

2.55 Fieldwork in geology will be indirectly assessed and will not be separately reported on a student's certificate.

2.56 We propose to set a requirement that awarding organisations should require schools to provide a statement confirming that they have provided each student with reasonable opportunities to complete the required fieldwork. A failure to

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<sup>8</sup> [www.gov.uk/government/publications/additional-certificate-requirements](http://www.gov.uk/government/publications/additional-certificate-requirements)

<sup>9</sup> [www.gov.uk/government/publications/specifications-in-relation-to-the-reasonable-adjustment-of-general-qualifications](http://www.gov.uk/government/publications/specifications-in-relation-to-the-reasonable-adjustment-of-general-qualifications)



provide this statement will be treated as malpractice and/or maladministration by the exam boards.

2.57 To do this, we propose to set rules that require:

- awarding organisations to require schools to provide a fieldwork statement to the awarding organisations confirming that provided each student with reasonable opportunities to complete the required geological fieldwork; and
- awarding organisations to treat any failure to provide the fieldwork statement as malpractice or maladministration.

2.58 In AS level geology, the subject content sets out skills that must be developed through fieldwork and which must be assessed indirectly. We have set out above our approach to the indirect assessment of students in relation to geological skills and techniques.

**Question 11: To what extent do you agree or disagree with our proposed approach to fieldwork for AS and A level geology?**

## Our proposed Conditions, requirements and guidance for GCE geology

3.1 As set out above, we are proposing to introduce subject-specific Conditions, requirements and guidance to implement the proposals in this consultation. We set out our proposed Conditions, requirements and guidance below.

### Proposed Conditions and requirements for GCE geology

3.2 We are proposing to introduce the following Conditions and requirements which will apply to all new GCE qualifications in geology:

- a Condition covering compliance with subject content and assessment objectives;
- a further enabling Condition which allows us to specify more detailed requirements on assessment;
- a Condition requiring students to complete practical skills in A level qualifications in geology;
- a Condition setting out the requirements for practical skills assessments in A level qualifications in geology;
- a Condition requiring the provision of fieldwork statements for AS and A level qualifications in geology;
- a Condition covering marking and results for A level qualifications in geology;
- our assessment objectives;
- requirements for assessments which cover assessment of mathematical skills and assessment of geological skills and techniques;
- requirements in relation to practical skills assessments; and
- certificate requirements.

<b>Condition</b>	<b>Compliance with content requirements</b>
<b>GCE(Geology)1</b>	
GCE(Geology)1.1	In respect of each GCE Qualification in Geology which it makes available, or proposes to make available, an awarding organisation must –

	<p>(a) comply with the requirements relating to that qualification set out in the document published by the Secretary of State entitled ‘Geology GCE AS and A level subject content’,<sup>10</sup> document reference DFE-00056-2016,</p> <p>(b) have regard to any recommendations or guidelines relating to that qualification set out in that document, and</p> <p>(c) interpret that document in accordance with any requirements, and having regard to any guidance, which may be published by Ofqual and revised from time to time.</p>
GCE(Geology)1.2	In respect of each GCE Qualification in Geology which it makes available, or proposes to make available, an awarding organisation must comply with any requirements, and have regard to any guidance, relating to the objectives to be met by any assessment for that qualification which may be published by Ofqual and revised from time to time.
<b>Condition</b> <b>GCE(Geology)2</b>	<b>Assessment</b>
GCE(Geology)2.1	An awarding organisation must ensure that in respect of each assessment for a GCE Qualification in Geology which it makes available it complies with any requirements, and has regard to any guidance, which may be published by Ofqual and revised from time to time.
<b>Condition</b> <b>GCE(Geology)3</b>	<b>Practical skills</b>
GCE(Geology)3.1	In respect of each GCE A level qualification in Geology which it makes available, or proposes to make available, an awarding organisation must –

<sup>10</sup> [www.gov.uk/government/publications/gce-as-and-a-level-geology](http://www.gov.uk/government/publications/gce-as-and-a-level-geology)

	<ul style="list-style-type: none"><li>(a) require each Learner to complete at least 12 practical activities, and</li><li>(b) ensure that, taken together, those practical activities provide opportunities for each Learner to –<ul style="list-style-type: none"><li>(i) develop all of the skills in appendix 1a to the content document, and</li><li>(ii) use and be assessed in relation to all of the skills, apparatus and techniques specified in appendix 1b and 1c to the content document.</li></ul></li></ul>
GCE(Geology)3.2	<p>In respect of each GCE A level qualification in Geology which it makes available, or proposes to make available, an awarding organisation must –</p> <ul style="list-style-type: none"><li>(a) review the practical activities which it requires each Learner to complete following any revision by the Secretary of State to the specified skills, apparatus or techniques, and</li><li>(b) revise those practical activities if appropriate.</li></ul>
GCE(Geology)3.3	<p>In respect of each GCE A level qualification in Geology which it makes available, or proposes to make available, an awarding organisation must –</p> <ul style="list-style-type: none"><li>(a) set out in the specification for that qualification –<ul style="list-style-type: none"><li>(i) the practical activities which each Learner must complete, and</li><li>(ii) in particular, the skills and techniques which those practical activities must allow each Learner to develop or demonstrate, and the apparatus which those practical activities must allow each Learner to use, and</li></ul></li><li>(b) promptly amend that specification when the awarding organisation makes any revision to those skills, techniques or apparatus, or those practical activities, and</li></ul>

	(c) where such an amendment has been made to the specification, publish that specification as amended.
GCE(Geology)3.4	<p>In respect of each assessment cycle for each GCE A level qualification in Geology which it makes available, an awarding organisation must –</p> <p>(a) require each Centre to provide a practical skills statement to the awarding organisation, and</p> <p>(b) treat any failure by a Centre to provide a practical skills statement to the awarding organisation in a timely manner as malpractice and/or maladministration (under General Condition A8 (Malpractice and maladministration)).</p>
GCE(Geology)3.5	For the purposes of this condition, the content document is the document specified in Condition GCE(Geology)1.1(a).
GCE(Geology)3.6	<p>For the purposes of this condition, a ‘practical skills statement’ is a true and accurate written statement made by a Centre to an awarding organisation which confirms that it has taken reasonable steps to secure that each Learner to which that Centre has delivered the assessments to be taken in a particular assessment cycle for each A level qualification in Geology which the awarding organisation makes available has –</p> <p>(a) completed at least 12 practical activities as required by the awarding organisation, and</p> <p>(b) made a contemporaneous record of the work which that Learner has undertaken during those practical activities.</p>
<b>Condition GCE(Geology)4</b>	<b>Practical skills assessments</b>
GCE(Geology)4.1	In respect of each practical skills assessment for a GCE A level qualification in Geology that an awarding

	<p>organisation makes available or proposes to make available –</p> <ul style="list-style-type: none"><li>(a) Condition H2 does not apply,</li><li>(b) Condition GCE4.1 does not apply, and</li><li>(c) that assessment must not be an Assessment by Examination.</li></ul>
GCE(Geology)4.2	<p>For the purposes of this condition, a 'practical skills assessment' is an assessment –</p> <ul style="list-style-type: none"><li>(a) of a Learner's competency in the skills outlined in appendix 1b, and the use of the apparatus and techniques outlined in the relevant portions of appendix 1c, to the document published by the Secretary of State entitled 'GCE AS and A level subject content for geology'<sup>11</sup>, document reference DFE-00056-2016,</li><li>(b) as evidenced by the Learner's performance in at least 12 practical activities as required by the awarding organisation under Condition GCE(Geology)3.1.</li></ul>
<b>Condition GCE(Geology)5</b>	<b>Fieldwork statements</b>
GCE(Geology)5.1	<p>In respect of each assessment cycle for a GCE Qualification in Geology which it makes available, an awarding organisation must –</p> <ul style="list-style-type: none"><li>(a) require each Centre to provide a fieldwork statement to the awarding organisation,</li><li>(b) treat any failure by a Centre to provide a fieldwork statement to the awarding organisation in a timely manner as malpractice and/or maladministration (under General Condition A8 (<i>Malpractice and maladministration</i>)).</li></ul>

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<sup>11</sup> [www.gov.uk/government/publications/gce-as-and-a-level-geology](http://www.gov.uk/government/publications/gce-as-and-a-level-geology)

GCE(Geology)5.2	<p>For the purposes of this condition –</p> <p>(a) a 'fieldwork statement' is a true and accurate written statement made by a Centre to an awarding organisation which confirms that each Learner to whom that Centre has delivered the assessments to be taken in a particular assessment cycle for a GCE Qualification in Geology which the awarding organisation makes available has been provided with reasonable opportunities to undertake geological fieldwork, and</p> <p>(b) 'geological fieldwork' is fieldwork which meets the requirements set out in appendix 1, as relevant, to the document published by the Secretary of State entitled 'GCE AS and A level subject content for geology', document reference DFE-00056-2016<sup>12</sup>.</p>
<b>Condition GCE(Geology)6</b>	<b>Marking and results</b>
GCE(Geology)6.1	<p>In respect of each GCE A level qualification in Geology which it makes available an awarding organisation must calculate and publish the following two separate results for each Learner –</p> <p>(a) a result for the Assessments by Examination to be taken for that qualification, and</p> <p>(b) a result for the practical skills assessment.</p>
GCE(Geology)6.2	<p>In respect of each GCE A level qualification in Geology which it makes available, an awarding organisation must ensure that an Assessor does not have any regard to a Learner's –</p> <p>(a) result for the practical skills assessment in calculating that Learner's final mark and result for the Assessments by Examination, and/or</p>

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<sup>12</sup> [www.gov.uk/government/publications/gce-as-and-a-level-geology](http://www.gov.uk/government/publications/gce-as-and-a-level-geology)

	<p>(b) final mark or result for the Assessments by Examination in determining that Learner's result for the practical skills assessment.</p>
GCE(Geology)6.3	<p>In respect of each practical skills assessment an awarding organisation must ensure that it complies with any Certificate Requirements in relation to that assessment which may be published by Ofqual and revised from time to time.</p>
GCE(Geology)6.4	<p>In respect of each GCE A level qualification in Geology which it makes available, an awarding organisation must ensure that –</p> <p>(a) a Learner may use the result for a practical skills assessment which he or she has taken for a GCE A level qualification in Geology made available by the awarding organisation or another awarding organisation, and</p> <p>(b) that Learner is not required to take a further practical skills assessment before being awarded the qualification.</p>
GCE(Geology)6.5	<p>For the purposes of this condition, a practical skills assessment has the same meaning as in Condition GCE(Geology)4.2.</p>



### Assessment objectives – GCE Qualifications in Geology

Condition GCE(Geology)1.2 allows us to specify requirements relating to the objectives to be met by any assessment for GCE Qualifications in Geology.

The assessment objectives set out below constitute requirements for the purposes of Condition GCE(Geology)1.2. Awarding organisations must comply with these requirements in relation to all GCE Qualifications in Geology they make available.

	Objective	Weighting (A level)	Weighting (AS)
AO1	Demonstrate knowledge and understanding of geological ideas, skills and techniques	30-35%	35-40%
AO2	Apply knowledge and understanding of geological ideas, skills and techniques	40-45%	40-45%
AO3	Analyse, interpret and evaluate geological information, ideas and evidence, to make judgements, draw conclusions, and develop and refine practical design and procedures.	25-30%	20-25%

## **Assessment requirements – GCE Qualifications in Geology**

Condition GCE(Geology)2.1 allows us to specify requirements in relation to assessments for GCE Qualifications in Geology.

We set out below our requirements for the purposes of Condition GCE(Geology)2.1. Awarding organisations must comply with these requirements in relation to all GCE Qualifications in Geology they make available.

### **Mathematical skills**

The subject content for GCE Qualifications in Geology is set out in the document published by the Secretary of State entitled ‘Geology GCE AS and A level subject content’, document reference DFE-00056-2016 (the ‘Content Document’).

Appendix 2 to the Content Document specifies the mathematical knowledge, skills and understanding which Learners will be required to use and apply in GCE Qualifications in Geology (the ‘Mathematical Skills’).

In designing and setting the Assessments by Examination for a GCE Qualification in Geology which it makes available, or proposes to make available, an awarding organisation must ensure that –

- (a) questions and tasks rewarding the use of ‘Mathematical Skills’ assess those skills within the context of other areas of the subject content, and not in isolation,
- (b) at least 10 per cent of the total marks for the qualification reward the use of Mathematical Skills at a Level of Demand which is not lower than that which is expected of Learners in assessments for the higher tier in a GCSE Qualification in Mathematics, and
- (c) without prejudice to the above requirements and those outlined in the Content Document, in each set of assessments Mathematical Skills are assessed at a range of Levels of Demand which supports effective differentiation in relation to the qualification.

### **Assessment of Learners in relation to geological skills and techniques – direct assessment**

In designing and setting the Assessments by Examination for each GCE Qualification in Geology which it makes available, or proposes to make available, an awarding organisation must ensure that, taking those assessments for that qualification together –

- (a) Learners' knowledge, skills and understanding in relation to geological skills and techniques is assessed across assessment objectives AO1, AO2 and AO3,
- (b) the number of marks used to credit such knowledge, skills and understanding is no less than 15 per cent of the total marks for the qualification,
- (c) the questions and tasks which test Learners' knowledge, skills and understanding in relation to geological skills and techniques draw on, and combine as appropriate, the theoretical and technical aspects of those skills and techniques,
- (d) for a GCE A level qualification, over the shortest period of time that is reasonably practicable, Learners are assessed in relation to all of the skills and techniques specified in Appendix 1a to the Content Document, and
- (e) for a GCE AS qualification, over the shortest period of time that is reasonably practicable, Learners are assessed in relation to all of the skills and techniques specified in Appendix 1a and 1d to the Content Document.

## **Requirements in relation to practical skills assessments**

Condition GCE(Geology)2.1 allows us to specify requirements and guidance in relation to assessments (as defined in Condition GCE(Geology)4.3) for GCE Geology qualifications.

We set out our requirements in relation to practical skills assessments (as defined in Condition GCE(Geology)4.2) for GCE A level qualifications in Geology for the purposes of Condition GCE(Geology)2.1 below.

### **Form of the practical skills assessment**

An awarding organisation must ensure that each practical skills assessment is designed and set in such a way as to allow a Learner who has demonstrated the competencies outlined in Table 1 below to reach a Pass.

### **Marking of practical skills assessments**

Evidence generated by a Learner in a practical skills assessment may be marked –

- (a) by a Centre,
- (b) by the awarding organisation or a person connected to the awarding organisation, or
- (c) through a combination of (a) and (b).

In any event, the awarding organisation must demonstrate to Ofqual's satisfaction in its assessment strategy that –

- (a) it has taken all reasonable steps to identify the risk of any Adverse Effect which may result from its approach to marking practical skills assessments, and
- (b) where such a risk is identified, it has taken all reasonable steps to prevent that Adverse Effect or, where it cannot be prevented, to mitigate that Adverse Effect.

### **The specified level of attainment in practical skills assessments**

In relation to each practical skills assessment, an awarding organisation must ensure that –

- (a) the only specified level of attainment is a Pass,
- (b) the criteria used by Assessors to determine whether each Learner will be awarded a Pass are those set out in Table 1 below, and
- (c) a Learner who does not meet the criteria to be awarded a Pass, or who has not been exempted on grounds of disability from the assessment but who does not take that assessment, is issued a result of Not Classified.

Under Condition H1.1, an awarding organisation must have in place arrangements to ensure that, as far as possible, the criteria set out in Table 1 are –

- (a) understood by Assessors and accurately applied, and
- (b) applied consistently by Assessors, regardless of the identity of the Assessor, Learner or Centre.

**Table 1: The criteria for a Pass**

In order to be awarded a Pass a Learner must, by the end of the practical skills assessment, consistently and routinely meet the criteria in respect of each competency listed below. A Learner may demonstrate the competencies in any practical activity undertaken as part of that assessment throughout the course of study.

Learners may undertake practical activities in groups. However, the evidence generated by each Learner must demonstrate that he or she independently meets the criteria outlined below in respect of each competency. Such evidence –

- (a) will comprise both the Learner’s performance during each practical activity and his or her contemporaneous record of the work that he or she has undertaken during that activity, and
- (b) must include evidence of independent application of investigative approaches and methods to practical work.

Competency	Assessment criteria
1 – Follows written procedures	a) Correctly follows written instructions to carry out experimental techniques or procedures
2 – Applies investigative approaches and methods when using instruments and equipment	a) Correctly uses appropriate instrumentation, apparatus and materials (including ICT) to carry out investigative activities, experimental techniques and procedures with minimal assistance or prompting. b) Carries out techniques or procedures methodically, in sequence and in combination, identifying practical issues and making adjustments where necessary. c) Identifies and controls significant quantitative variables where applicable, and plans approaches to take account of variables that cannot readily be controlled. d) Selects appropriate equipment and measurement strategies in order to ensure suitably accurate results.

<p>3 – Safely uses a range of practical equipment and materials</p>	<p>a) Identifies hazards and assesses risks associated with those hazards, making safety adjustments as necessary, when carrying out experimental techniques and procedures in the lab or field.</p> <p>b) Uses appropriate safety equipment and approaches to minimise risks with minimal prompting.</p>
<p>4 – Makes and records observations</p>	<p>a) Makes accurate observations relevant to the experimental or investigative procedure.</p> <p>b) Obtains accurate, precise and sufficient data for experimental and investigative procedures and records this methodically using appropriate units and conventions.</p>
<p>5 – Researches, references and reports</p>	<p>a) Uses appropriate software and/or tools to process data, carry out research and report findings.</p> <p>b) Cites sources of information demonstrating that research has taken place, supporting planning and conclusions.</p>

### Monitoring of practical skills assessments

In respect of each GCE A level qualification in Geology which it makes available, an awarding organisation must have in place clear and effective arrangements to monitor the delivery and, where relevant, the marking of practical skills assessments by Centres.

As part of those arrangements, an awarding organisation must ensure that each Centre which delivers practical skills assessments receives a monitoring visit at least every two years (a 'Monitoring Visit').

An awarding organisation must ensure that each Monitoring Visit it conducts includes the following activities –

- (a) Observation of one or more practical activities being undertaken.
- (b) Steps to ensure that, where evidence generated by a Learner in the practical skills assessment is marked by the Centre, Teachers are applying the criteria outlined above accurately and consistently.
- (c) Steps to ensure that Learners have been provided with opportunities to undertake practical activities.
- (d) A review of samples of records of Learners' practical activities and Centres' documentation in relation to those activities to ensure that all relevant

requirements in relation to the practical activities and practical skills assessments are being met.

(e) Where appropriate, the provision of advice and guidance to the Centre.

Where, during a Monitoring Visit, an awarding organisation identifies an Adverse Effect, or a risk of an Adverse Effect, relating to the delivery or marking of practical skills assessments, it must ensure that any other awarding organisations for whom that Centre delivers practical science assessments for GCE A level qualifications in Biology, Chemistry or Physics are informed.

An awarding organisation must set out its approach to monitoring, and in particular how it will meet the above requirements, in its assessment strategy.

## **Certificate Requirements**

Condition GCE(Geology)6.3 allows us to specify Certificate Requirements in relation to the way in which a Learner's attainment in a practical skills assessment is reflected on that Learner's certificate for the qualification.

In addition, under Condition I3.1, an awarding organisation is required to ensure that the design of each certificate in relation to a qualification which it makes available complies with the Certificate Requirements which may be published by Ofqual and revised from time to time.

We set out our Certificate Requirements for the purposes of Condition GCE(Geology)6.3 and Condition I3.1 below.

These requirements must be followed together with the Additional Certificate Requirements<sup>9</sup> which apply to all qualifications.

### **Certificate requirements for practical skills assessments**

A certificate will only be issued for a GCE A level qualification in Geology where a Learner has been awarded a grade A\* - E in respect of the level of attainment he or she has demonstrated in the Assessments by Examination to be taken for that qualification.

Where a Learner has not been awarded a grade A\* - E in respect of those Assessments by Examination, an awarding organisation must ensure that no certificate is issued in respect of that Learner's practical skills assessment, regardless of the result for that assessment.

For clarity, the result for that Learner's practical skills assessment must still be issued, together with the Learner's result in respect of the Assessments by Examination, under Condition H6.1.

Where a certificate will be issued to a Learner in respect of the Assessments by Examination, an awarding organisation must ensure that it meets the following requirements in recording the outcome of the practical skills assessment on that certificate –

- (a) Where the Learner has been awarded a Pass, that outcome must be recorded on the certificate.
- (b) Where the Learner –
  - (i) has taken the practical skills assessment but has not been awarded a Pass, or
  - (ii) has not been granted an exemption on grounds of disability from taking the practical skills assessment, but has not taken it,



the outcome reported on the certificate must be Not Classified.

- (c) Where the Learner has been granted an exemption from taking the practical skills assessment on grounds of disability, the outcome reported on the certificate must be in line with any requirements which may be published by Ofqual and revised from time to time.

In all cases an awarding organisation must ensure that it is clear that the above outcomes are in relation to the practical skills assessment.

## Proposed guidance for GCE geology

- 3.3 We are proposing to introduce guidance on assessment objectives which will apply to all new AS and A level qualifications in geology:

### Guidance on assessment objectives for GCE Qualifications in Geology

Condition GCE(Geology)1.2 allows us to specify requirements and guidance relating to assessment objectives for GCE Qualifications in Geology.

We published our requirements in relation to assessment objectives in *GCE Subject Level Conditions and Requirements for Geology*, and reproduce them in the table below.

	Objective	Weighting (A level)	Weighting (AS)
AO1	Demonstrate knowledge and understanding of geological ideas, skills and techniques	30-35%	35-40%
AO2	Apply knowledge and understanding of geological ideas, skills and techniques	40-45%	40-45%
AO3	Analyse, interpret and evaluate geological information, ideas and evidence, to make judgements, draw conclusions, and develop and refine practical design and procedures.	25-30%	20-25%

We set out below our guidance for the purposes of Condition GCE(Geology)1.2. This guidance explains how we expect awarding organisations to interpret these assessment objectives in terms of:

- the discrete ‘elements’ within each assessment objective and its strands that questions and tasks could target and/or seek to credit – our expectation is that each and every question/task should target or seek to credit at least one of these elements, and may target or seek to credit multiple elements across one or more assessment objectives;
- the coverage expectations, such as in relation to the different elements within each assessment objective and how those elements should be sampled over time; and

- the key areas of emphasis in each assessment objective and the particular meaning for the subject of any key terms and phrases used; defined terms are shown in bold text, followed by their definitions.

In line with the obligations set out in Condition GCE(Geology)1.2, we expect awarding organisations to be able to demonstrate how they have had regard to this guidance. For example, an awarding organisation could map how it has regard to the guidance as it:

- develops its sample assessment materials;
- delivers the qualification;
- develops and applies its approach to sampling the elements into which the assessment objectives are divided; and
- monitors the qualification to make sure it addresses all elements appropriately.

AO1 – Demonstrate knowledge and understanding of geological ideas, skills and techniques.		A level 30-35% AS 35-40%	
Strands	Elements	Coverage	Interpretations and Definitions
n/a	1a – Demonstrate knowledge of geological ideas	<ul style="list-style-type: none"> <li>• Full coverage in each set of assessments (but not in every assessment).<sup>13</sup></li> <li>• A maximum of 10% of the total marks for the qualification should reward demonstrating knowledge in isolation.<sup>14</sup></li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Ideas</b> are aspects of subject content outlined in Paragraphs 9 and 10 of the document published by the Secretary of State entitled ‘Geology GCE subject content’, document reference DFE-00056-2016 (the ‘Content Document’).</li> <li>■ <b>Skills and techniques</b> are aspects of subject content and are related to the skills and techniques outlined in Appendix 1 to the Content Document and the mathematical skills requirement set out in Appendix 2 to the Content Document.</li> <li>■ The emphasis in this assessment objective should be on the demonstration of knowledge and understanding of geological ideas.</li> </ul>
	1b – Demonstrate knowledge of geological skills and techniques		
	1c – Demonstrate understanding of geological ideas		
	1d – Demonstrate understanding of geological skills and techniques		

<sup>13</sup> For the purposes of this guidance, a ‘set of assessments’ means the assessments to be taken by a particular Learner for a GCE Qualification in Geology. For clarity, the assessments taken by Learners may vary, depending on any possible routes through the qualification.

<sup>14</sup> Marks that “reward demonstrating knowledge in isolation” include any mark awarded solely for recalling facts or other knowledge. It does not include marks awarded for selecting appropriate knowledge (for example, to evidence an argument), or for applying knowledge to a particular context.

AO2 – Apply knowledge and understanding of geological ideas, skills and techniques.			A level 40-45%
			AS 40-45%
Strands	Elements	Coverage	Interpretations and Definitions
n/a	1a – Apply knowledge and understanding of geological ideas.	<ul style="list-style-type: none"> <li>• Full coverage in each set of assessments (but not in every assessment).</li> <li>• A reasonable balance of the elements in each set of assessments (but not in every assessment).</li> <li>• Awarding organisations should justify the balance between elements in their assessment strategies.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Ideas</b> are aspects of subject content outlined in Paragraphs 9 and 10 of the Content Document.</li> <li>■ <b>Skills and techniques</b> are aspects of subject content and are related to the skills and techniques outlined in Paragraphs 7 and 8 of the Content Document.</li> <li>■ Learners should be expected to apply their knowledge and understanding to stimulus and source material to provide meaning and explanations in particular contexts. This application should relate principally to developing further material that is covered in the specification by –                             <ul style="list-style-type: none"> <li>□ exploring contexts and situations that are not explicitly indicated in the specification;</li> <li>□ making links between types of material which are not explicitly indicated in the specification.</li> </ul> </li> </ul>
	1b – Apply knowledge and understanding of geological skills and techniques		

AO3 - Analyse, interpret and evaluate geological information, ideas and evidence to make judgements, draw conclusions, and develop and refine practical design and procedures.		A level 25-30% AS 20-25%	
Strands	Elements	Coverage	Interpretations and Definitions
n/a	<p>1a – Analyse geological information, ideas and evidence</p> <p>1b – Interpret geological information, ideas and evidence</p> <p>1c – Evaluate geological information, ideas and evidence</p> <p>1d – Make judgements</p> <p>1e – Draw conclusions</p> <p>1f – Develop and refine practical design and procedures.</p>	<ul style="list-style-type: none"> <li>■ Full coverage in each set of assessments (but not in every assessment).</li> <li>■ Reasonable balance of the elements in each set of assessments (but not in every assessment).</li> <li>■ Awarding organisations should justify the balance between the elements in their assessment strategies.</li> <li>■ Elements 1d and 1e may be assessed separately or together, but they should be assessed in combination with one or more of elements 1a – 1c.</li> </ul>	<ul style="list-style-type: none"> <li>■ <b>Information, ideas and evidence</b> are aspects of subject content. Awarding organisations should explain their approach to targeting them in their assessment strategy. Information and evidence includes sources covering the skills and techniques outlined in Appendix 1 to the Content Document. It should include: information and evidence from practical work and from fieldwork; both qualitative and quantitative approaches.</li> <li>■ <b>Analyse</b> means deconstructing ideas and/or information and/or evidence to find connections and provide logical chains of reasoning</li> <li>■ <b>Interpret</b> means describing and ascribing meaning</li> <li>■ <b>Evaluate</b> means appraising and/or ascribing value to information and/or issues. This could by need not lead to synthesising ideas and/or information and/or evidence.</li> <li>■ <b>Make judgements</b> means coming to decisions, including in relation to information and evidence</li> <li>■ <b>Draw conclusions</b> means providing a final view or outcome through a process of reasoning, including in relation to the use and summary of information and evidence</li> </ul>

**Questions on proposed Conditions, requirements and guidance for GCE geology**

**Question 12: Do you have any comments on our proposed Conditions and requirements for AS and A level geology?**

**Question 13: Do you have any comments on our proposed guidance for AS and A level geology?**

## Equality impact analysis

### Ofqual's role, objectives and duties

- 4.1 We are subject to the public sector equality duty. We have set out in Appendix B how this duty interacts with our statutory objectives and other duties.

### Equality impact analysis relating to proposed changes to AS and A level geology

- 4.2 We have considered the potential impact on students who share protected characteristics<sup>15</sup> of the application of the principles and features that will apply to all new GCSE, AS and A level qualifications. Our equality impact analyses for our earlier consultations on GCSE,<sup>16</sup> AS and A level reform<sup>17</sup> are therefore of interest and we encourage you to read them.
- 4.3 Issues concerning the proposed subject content have been considered by DfE, who have published their own Equalities Impact Analysis on their subject content proposals.<sup>18</sup>
- 4.4 We have also previously considered the potential impact on students who share protected characteristics of our decisions on assessment arrangements for this subject.<sup>19</sup>
- 4.5 We do not repeat here all of the evidence we have considered, as this can be found in our earlier reports. We focus instead on the specific issues that arise from the new proposals in this consultation, and from the way in which we are implementing our previous policy decisions.
- 4.6 We judge that our proposal that practical skills in geology should continue to be assessed, with the outcome of the assessment reported separately from the grade for the exams, is likely to have a mainly positive impact for students whose disability makes it difficult for them to handle science equipment in an assessment context. Some disabled students will not be able to take the practical assessments because they do not have the manipulative and/or visual

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<sup>15</sup> For the purposes of the public sector equality duty, the protected characteristics are disability, racial group, age, religion or belief, pregnancy or maternity, sex, sexual orientation, gender reassignment.

<sup>16</sup> <http://webarchive.nationalarchives.gov.uk/20141031163546/http://comment.ofqual.gov.uk/gcse-reform-june-2013/category/8-equality-impact-analysis/>

<sup>17</sup> <http://webarchive.nationalarchives.gov.uk/20141031163546/http://www.ofqual.gov.uk/files/2012-06-18-equality-analysis-of-the-a-level-reform-consultation.pdf>

<sup>18</sup> [www.gov.uk/government/publications/gcse-and-a-level-subject-content-equality-analysis-3-subjects--2](http://www.gov.uk/government/publications/gcse-and-a-level-subject-content-equality-analysis-3-subjects--2)

<sup>19</sup> [www.gov.uk/government/consultations/developing-geology-politics-and-pe-short-course-for-2017-teaching](http://www.gov.uk/government/consultations/developing-geology-politics-and-pe-short-course-for-2017-teaching)



skills required to do so. Such students should be able to observe and/or learn from others undertaking the practical work or complete the work themselves using a practical assistant. This will help them prepare for their exams. Such students should be exempted from the practical skills assessment. The separate reporting will make sure that the grade they receive from their written exam is not depressed by their performance in the practical assessment.

- 4.7 We will consult separately on how an exemption should be reported on the student's certificate and will consider what equality impacts this may have.
- 4.8 However, we are also aware that the separate reporting of practical skills may have a negative impact on some students who find written exams difficult because of their disability. For these students, the removal of practical assessments from incorporation within the overall A level grade may be unwelcome as the opportunity to improve one overall grade through their performance in the practical assessment will be lost. We have considered these two competing factors in the light of our wider considerations of the purpose and nature of practical skills assessments as we have finalised our approach.
- 4.9 Certain fieldwork activities could impact on students with particular physical disabilities who may not be able to access the chosen fieldwork sites. However, schools are already required to ensure that appropriate reasonable adjustments are made for disabled students, and they take this into account when they select the fieldwork site.<sup>20</sup>
- 4.10 The requirement to complete fieldwork activities is set out in the subject content, and has been considered by DfE, who have published their own Equalities Impact Analysis on their subject content proposals.<sup>21</sup>
- 4.11 We have decided that fieldwork activities should not be directly assessed, and instead, a student will be indirectly assessed on fieldwork through the exam assessments.
- 4.12 We have not identified anything in our planned approach to assessment in AS or A level geology that would have a negative impact on students because of their racial group, sex, age, religion or belief, pregnancy or maternity or sexual orientation, or as a result of gender reassignment.

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<sup>20</sup> [www.equalityhumanrights.com/advice-and-guidance/education-providers-schools-guidance/providing-education-and-access-to-any-benefit-service-or-facility](http://www.equalityhumanrights.com/advice-and-guidance/education-providers-schools-guidance/providing-education-and-access-to-any-benefit-service-or-facility)

<sup>21</sup> [www.gov.uk/government/publications/gcse-and-a-level-subject-content-equality-analysis-3-subjects--2](http://www.gov.uk/government/publications/gcse-and-a-level-subject-content-equality-analysis-3-subjects--2)

- 4.13 During this consultation, we will continue to seek and consider evidence and feedback to our proposals that might help us identify any potential subject-specific impacts on students who share a protected characteristic.
- 4.14 Exam boards are required to consider the accessibility of their qualifications at the design stage and to remove any unjustifiable barriers.

**Question 14: We have set out how our proposals for AS and A level geology may impact (positively and negatively) on persons who share a protected characteristic.<sup>22</sup> Are there any potential impacts we have not identified?**

**Question 15: Are there any additional steps we could take to mitigate any negative impact resulting from these proposals on persons who share a protected characteristic?**

**Question 16: Do you have any other comments on the impacts of the proposals on students who share a protected characteristic?**

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<sup>22</sup> 'Protected characteristic' is defined in the Equality Act 2010. Here, it means disability, racial group, age, religion or belief, pregnancy or maternity, sex, sexual orientation and gender reassignment.

## Appendix A: Regulatory tools

### Comparability and innovation

Exam boards operate in a market. They can design and deliver their qualifications in different ways, within the parameters we set. This provides some choice to schools or colleges, which is one of the benefits of a qualifications market. Exam boards must, however, make sure that the levels of attainment indicated by their qualifications are comparable to those of other exam boards' versions of the qualifications. The exam boards cooperate in a range of ways to make sure that the standards of their respective qualifications are comparable. To make sure standards are maintained and comparability is secured, we review AS and A level qualifications before they can be made available, by applying an accreditation requirement to the qualifications, and we oversee the awarding of AS and A level qualifications.

We do not wish to close down opportunities for exam boards to design and deliver their qualifications in different ways. Indeed, we have a statutory duty to have regard to the desirability of facilitating innovation in connection with the provision of regulated qualifications and a statutory objective with regard to the efficiency with which the qualifications market works. If we adopt a regulatory approach in which all aspects of a qualification are very tightly defined, we could effectively remove scope for exam boards to distinguish their qualifications from others and stop choice for schools or colleges. On the other hand, if exam boards have too much scope to vary their approach their qualifications might not be comparable.

In striking a balance, we use a range of tools to regulate qualifications and the exam boards that provide them. The main regulatory tools we use for the qualifications in this consultation are explained below.

### Conditions of Recognition

Exam boards must comply at all times with our Conditions of Recognition. These are the main regulatory rules that we use. We can take regulatory action against an exam board that breaches or is likely to breach a Condition.

There are three sets of Conditions that will apply to new AS and A level qualifications:

- (i) the published *General Conditions of Recognition*<sup>23</sup> that apply to all regulated qualifications;

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<sup>23</sup> [www.gov.uk/government/publications/general-conditions-of-recognition](http://www.gov.uk/government/publications/general-conditions-of-recognition)

- (ii) *GCE Qualification Level Conditions and Requirements*<sup>24</sup> that apply to all new AS and A level qualifications;
- (iii) GCE Subject Level Conditions that apply to new AS and A level qualifications in a specific subject. We are consulting now on draft GCE Subject Level Conditions for geology.

## **Regulatory documents**

In some Conditions we refer to published regulatory requirements. We publish these in regulatory documents. The Conditions require exam boards to comply with such documents.

We are proposing to introduce regulatory documents for AS and A level geology which cover our requirements in relation to:

- our assessment requirements for the assessment of mathematical skills and geographical skills and techniques;
- requirements in relation to practical skills assessments; and
- certificate requirements.

The requirements will have effect as if they were part of a Condition. The requirements will be set out in a stand-alone section of each Conditions document, simply because they are technical and detailed so they sit better as separate from, rather than within, the Condition itself.

## **Statutory guidance**

We publish guidance to help exam boards identify the types of behaviour or practices they could use to meet a Condition. Exam boards must have regard to such guidance, but they do not have to follow this guidance in the same way that they must comply with the Conditions; they are free to meet the outcomes of the Conditions in their own ways. An exam board that decides to take a different approach to that set out in our guidance must still be able to show that it is meeting the Condition or Conditions to which the guidance relates.

We are consulting now on draft guidance for new AS and A levels in geology.

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<sup>24</sup> [www.gov.uk/government/publications/gce-qualification-level-conditions-and-requirements](http://www.gov.uk/government/publications/gce-qualification-level-conditions-and-requirements)

## Appendix B: Ofqual’s role, objectives and duties

Our statutory objectives include the qualifications standards objective, which is to secure that the qualifications we regulate:

- (a) give a reliable indication of knowledge, skills and understanding; and
- (b) indicate:
  - (i) a consistent level of attainment (including over time) between comparable regulated qualifications; and
  - (ii) a consistent level of attainment (but not over time) between qualifications we regulate and comparable qualifications (including those awarded outside the UK) that we do not regulate.

We must therefore regulate so that qualifications properly differentiate between students who have demonstrated that they have the knowledge, skills and understanding required to attain the qualification and those who have not.

We also have a duty under the Apprenticeship, Skills, Children and Learning Act 2009 to have regard to the reasonable requirements of relevant students, including those with special educational needs and disabilities, of employers and of the higher education sector, and to aspects of government policy when so directed by the Secretary of State.

As a public body, we are subject to the public sector equality duty.<sup>25</sup> This duty requires us to have due regard to the need to:

- (a) eliminate discrimination, harassment, victimisation and any other conduct that is prohibited under the Equality Act 2010;
- (b) advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it;
- (c) foster good relations between persons who share a relevant protected characteristic and persons who do not share it.

The exam boards that design, deliver and award AS and A level qualifications are required by the Equality Act, among other things, to make reasonable adjustments for disabled people taking their qualifications, except where we have specified that such adjustments should not be made.

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<sup>25</sup> Equality Act 2010, section 149.

When we decide whether such adjustments should not be made, we must have regard to:

- (a) the need to minimise the extent to which disabled persons are disadvantaged in attaining the qualification because of their disabilities;
- (b) the need to secure that the qualification gives a reliable indication of the knowledge, skills and understanding of a person upon whom it is conferred;
- (c) the need to maintain public confidence in the qualification.

Legislation therefore sets out a framework within which we must operate. We are subject to a number of duties and we must aim to achieve a number of objectives. These different duties and objectives can, from time to time, conflict with each other. For example, if we regulate to secure that a qualification gives a reliable indication of a student's knowledge, skills and understanding, a student who has not been able to demonstrate the required knowledge, skills and/or understanding will not be awarded the qualification. A person may find it more difficult, or impossible, to demonstrate the required knowledge, skills and/or understanding because they have a protected characteristic. This could put them at a disadvantage relative to others who have been awarded the qualification. It is not always possible for us to regulate so that we can both secure that qualifications give a reliable indication of knowledge, skills and understanding and advance equality between people who share a protected characteristic and those who do not. We must review all the available evidence and actively consider all the available options before coming to a final, rational decision.

Qualifications cannot be used to mitigate inequalities or unfairness in the education system or in society more widely that might affect, for example, students' preparedness to take the qualification and the assessments within it. While a wide range of factors can have an impact on a student's ability to achieve a particular mark in an assessment, our influence is limited to the way the qualification is designed and assessed.

We require the exam boards to design qualifications to give a reliable indication of the knowledge, skills and understanding of those on whom they are conferred. We also require the exam boards to avoid, where possible, features of a qualification that could, without justification, make a qualification more difficult for a student to achieve because they have a particular protected characteristic. We require exam boards to monitor whether any features of their qualifications have this effect.

In setting the overall framework within which exam boards will design, assess and award the reformed A level and AS qualifications, we want to understand the possible impacts of the proposals on persons who share a protected characteristic.

The protected characteristics under the Equality Act 2010 are:

- age;
- disability;
- gender reassignment;
- marriage and civil partnerships;
- pregnancy and maternity;
- race;
- religion or belief;
- sex;
- sexual orientation.

It should be noted that with respect to the public sector equality duty under section 149 of the 2010 Act, we are not required to have due regard to impacts on those who are married or in a civil partnership.

## Responding to the consultation

### Your details

To evaluate responses properly, we need to know who is responding to the consultation and in what capacity. We will therefore only consider your response if you complete the following information section.

We will publish our evaluation of responses. Please note that we may publish all or part of your response unless you tell us (in your answer to the confidentiality question) that you want us to treat your response as confidential. If you tell us you wish your response to be treated as confidential, we will not include your details in any published list of respondents, although we may quote from your response anonymously.

Please answer all questions marked with a star\*

Name\*

Position\*

Organisation name (if applicable)\*

Address

Email

Telephone



**Would you like us to treat your response as confidential?\***

If you answer yes, we will not include your details in any list of people or organisations that responded to the consultation.

Yes  No

**Is this a personal response or an official response on behalf of your organisation?\***

Personal response (please answer the question ‘If you ticked “Personal response”...’)

Official response (please answer the question ‘If you ticked “Official response”...’)

**If you ticked “Personal response”, which of the following are you?**

Student

Parent or carer

Teacher (but responding in a personal capacity)

Other, including general public (please state below)

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**If you ticked “Official response”, please respond accordingly:**

**Type of responding organisation\***

Awarding organisation

Local authority

School or college (please answer the question below)

Academy chain

Private training provider

University or other higher education institution

Employer

Other representative or interest group (please answer the question below)

**School or college type**

- Comprehensive or non-selective academy
  - State selective or selective academy
  - Independent
  - Special school
  - Further education college
  - Sixth form college
  - Other (please state below)
- 

**Type of representative group or interest group**

- Group of awarding organisations
  - Union
  - Employer or business representative group
  - Subject association or learned society
  - Equality organisation or group
  - School, college or teacher representative group
  - Other (please state below)
- 

**Nation\***

- England
- Wales
- Northern Ireland
- Scotland
- Other EU country: \_\_\_\_\_
- Non-EU country: \_\_\_\_\_

**How did you find out about this consultation?**

Our newsletter or another one of our communications

Our website

Internet search

Other

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**May we contact you for further information?**

Yes  No

## Questions

**Question 1: To what extent do you agree or disagree that we should introduce a Condition which requires exam boards to comply with the relevant subject content and assessment objectives?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

.....

.....

.....

**Question 2: To what extent do you agree or disagree that we should introduce guidance which clarifies how exam boards should interpret our assessment objectives?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

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.....

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**Question 3: To what extent do you agree or disagree that we should introduce rules for exam assessment to ensure exam boards take a consistent approach to assessing mathematical skills and practical skills in AS and A level geology?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

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**Question 4: To what extent do you agree or disagree with our proposed approach to assessing mathematical skills in exams for AS and A level geology?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

.....

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**Question 5: To what extent do you agree or disagree with our proposed approach to assessing geological skills and techniques in exams for AS and A level geology?**

- Strongly agree
- Agree
- Neither agree nor disagree

Disagree

Strongly disagree

Please explain your reasons:

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**Question 6: To what extent do you agree or disagree with our proposed approach to the completion of practical skills activities for A level geology?**

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Please explain your reasons:

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**Question 7: To what extent do you agree or disagree with our proposed approach to the assessment of practical skills for A level geology?**

Strongly agree

Agree

Neither agree nor disagree

Disagree

Strongly disagree

Please explain your reasons:

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**Question 8: To what extent do you agree or disagree with our proposed approach to marking of practical skills for A level geology?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

.....  
.....  
.....

**Question 9: To what extent do you agree or disagree with our proposed approach to monitoring of practical skills for A level geology?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

.....  
.....  
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**Question 10: To what extent do you agree or disagree with our proposed approach to certificate requirements for A level geology?**

- Strongly agree

- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

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**Question 11: To what extent do you agree or disagree with our proposed approach to fieldwork for AS and A level geology?**

- Strongly agree
- Agree
- Neither agree nor disagree
- Disagree
- Strongly disagree

Please explain your reasons:

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**Question 12: Do you have any comments on our proposed Conditions and requirements for AS and A level geology?**

- Yes  No

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**Question 13: Do you have any comments on our proposed guidance for AS and A level geology?**

Yes  No

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**Question 14: We have set out how our proposals for AS and A level geology may impact (positively and negatively) on persons who share a protected characteristic.<sup>26</sup> Are there any potential impacts we have not identified?**

Yes  No

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**Question 15: Are there any additional steps we could take to mitigate any negative impact resulting from these proposals on persons who share a protected characteristic?**

Yes  No

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<sup>26</sup> 'Protected characteristic' is defined in the Equality Act 2010. Here, it means disability, racial group, age, religion or belief, pregnancy or maternity, sex, sexual orientation and gender reassignment.

**Question 16: Do you have any other comments on the impacts of the proposals on students who share a protected characteristic?**

Yes  No

.....

.....

.....

## Accessibility of our consultations

We want our consultations to be read and understood by as many people as possible. We would appreciate it if you could spare a few moments to answer the following questions.

**We want to write clearly, directly and put the reader first. Overall, do you think we have got this right in this consultation?**

Yes  No

**Do you have any comments or suggestions about the style of writing?**

Yes  No

.....

.....

.....

**How many of our consultations have you read in the last 12 months?**

1

2

3

4

5

More than 5

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