Applications of Mathematics and Mathematics

The Qualifications Team

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Changes to assessment at National 5, Higher and Advanced Higher

As announced by the Deputy First Minister in September 2016, units and unit assessments are being removed from National 5, Higher and Advanced Higher courses on a phased basis over three years:

- National 5 from 2017–18
- Higher from 2018–19
- Advanced Higher from 2019–20

For more information, including a Q&A on the implications of these changes, please visit our website at www.sqa.org.uk/nqchanges

Units that were previously part of National 5 courses

The units that were previously part of National 5 courses are now freestanding units at SCQF level 5. They can no longer be used to contribute to the achievement of a National 5 course.

We will remove all references to National 5 courses from the unit specifications, unit support notes and unit assessment support packs in due course, and the unit support notes will be added to the unit specifications as an appendix. The unit specifications will also be relocated to a new freestanding units web page for each subject.
Further information on the timescales for this will be provided in our weekly Centre News newsletter.

**Changes to assessment in National 5**

**Applications of Mathematics**

The National 5 Applications of Mathematics course is now assessed through the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question paper — paper 1 (non-calculator)</td>
<td>45</td>
</tr>
<tr>
<td>Question paper — paper 2</td>
<td>65</td>
</tr>
</tbody>
</table>

Question paper 1 (65 minutes) gives candidates an opportunity to demonstrate an understanding of a range of mathematical skills and to select, apply and combine them to perform calculations. Candidates demonstrate skills in interpreting and presenting information.

It consists of short-answer and extended-response questions, most of which are in context.

Question paper 2 (120 minutes) gives candidates an opportunity to interpret and analyse real-life problems or situations, select appropriate strategies, carry out calculations and draw valid conclusions or justify decisions.

It consists of short-answer questions, extended-response questions and case studies, most of which are in context.

**Mathematics**

The National 5 Mathematics course is now assessed through the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Marks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Question paper — paper 1 (non-calculator)</td>
<td>50</td>
</tr>
<tr>
<td>Question paper — paper 2</td>
<td>60</td>
</tr>
</tbody>
</table>

Question paper 1 (75 minutes) gives candidates an opportunity to apply numerical, algebraic, geometric, trigonometric, statistical and reasoning skills specified in the ‘Skills, knowledge and understanding for the course assessment’ section.

Candidates demonstrate an understanding of applying numerical skills within a mathematical context without the use of a calculator. It consists of short-answer and extended-response questions.
Question paper 2 (110 minutes) gives candidates an opportunity to apply numerical, algebraic, geometric, trigonometric, statistical and reasoning skills specified in the ‘Skills, knowledge and understanding for the course assessment’ section.

These skills may be facilitated by the use of a calculator. It consists of short-answer and extended-response questions.

For more information see the question paper brief appendix in the relevant course specification.

**Clarification of course content in the National 5 course**

Applications of Mathematics

- Using statistics to analyse and compare data sets
- Calculating mean, median, mode, range, interquartile range, and standard deviation

Mode has been added for clarification.

**Changes to assessment in Higher courses from session 2018–19**

Units and unit assessments will be removed from Higher courses from session 2018–19 and we have started our review of the Higher course assessments. For this, we are working closely with our National Qualifications Support Teams (NQSTs) for each subject. Our NQSTs include teachers and lecturers who currently deliver National Courses, and representatives of professional associations. We will also meet with a sample of teachers to gauge their views on the proposed changes and the implications of these.

The publication of new and revised Higher materials will follow a similar timescale to National 5:

<table>
<thead>
<tr>
<th>End of April 2018</th>
<th>Revised Higher course specifications</th>
</tr>
</thead>
</table>
| End of May to end of September 2018 | Course support notes  
New/revised specimen question papers  
New/revised coursework assessment tasks |

We will provide further information on what the changes to assessment are for each subject by the end of January 2018.

**Changes to documents**

**Revised National 5 documents and assessment support materials**

Following the removal of units and unit assessments from the National 5 Applications of Mathematics and Mathematics course, we have strengthened the course assessment to ensure it assesses the full content of the course.
We have published revised course specifications and new and revised assessment support materials for the National 5 courses, which detail the requirements of the revised course assessments from session 2017–18 onwards. The documents are available from the National 5 subject web pages at www.sqa.org.uk/ngsubjects. Further information on the changes to documents and assessment support materials is provided below.

**Course specification**
In April 2017, we published a revised course specification which provided detailed information about the National 5 courses and course assessments, including the conditions of assessment that must be followed. The revised documents were produced by merging the previous course specifications, course assessment specifications and general assessment information into single, streamlined documents. Course support notes and question paper brief have been added to the course specification as an appendix.


**Specimen question papers**
Both specimen questions papers have been amended to reflect the changes to the course assessments.

The National 5 Applications of Mathematics specimen question paper is available on the National 5 Applications of Mathematics web page.

The National 5 Mathematics specimen question paper is available on the National 5 Mathematics web page.

**Changes to documents following Diet 2017**
Lifeskills Mathematics courses at National 3, National 4 and National 5 will now be renamed ‘Applications of Mathematics’. Our webpages and documents for the National 3 to National 4 courses will be updated in October.

**Supportive resources**

**National 5 audio presentations**
We have published audio presentations that focus on the requirements of the revised National 5 course assessments.

You can access the audio presentation from the CPD webinar/audio and support tab on the National 5 Applications of Mathematics web page and for National 5 Mathematics web page.
National 5 course events — Applications of Mathematics

We are hosting a series of subject-specific events that focus on the changes to assessment in National 5 courses. The events are running until January 2018 and provide delegates with the opportunity to participate in workshops and discuss the course documents, as well as have their questions answered by senior examining team members.

To view the event schedule and book your place, visit www.sqa.org.uk/nqevents

Understanding Standards materials/events

There are three Understanding Standard events for Applications of Mathematics. They are as follows:

- 26 September, Hampden, Glasgow
- 3 October, Murrayfield, Edinburgh
- 24 October, Mercure Hotel, Perth

Further information and guidance

Course reports

We strongly recommend that you read the annual course reports for the subjects and levels you are teaching. These reports are produced following the annual diet of exams and are published by the end of October. The reports provide informed and valuable comment on the assessment for each component in the course, and include a summary of:

- candidate performance in the course assessment
- areas in which candidates performed well
- areas which candidates found demanding

The reports also contain advice on preparing future candidates, and statistical data relating to grade boundaries. Course reports will be available from the relevant subject pages of our website at.

Verification key messages

Key messages from rounds one and two of verification in session 2016–17 are available on the relevant subject pages of our website at
You can access them from the ‘Verification and Course Reports' tab.

Advanced Higher statistics

Copies of the Statistical Formulae and Tables that are used in class during the year must not be used for the examination. The head of centre should contact SQA to obtain further copies before the examination.
Subject Implementation Manager

Kevin Gibson has recently joined the maths team, supporting centres with the implementation of the new qualifications. He has over 20 years’ experience as a maths teacher, and is currently Principal Assessor for Higher Maths. Kevin works with the verification and examining teams to help maintain consistency and quality in all aspects of the qualifications, and is available to discuss any aspect of the qualification process.
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