GCSE Awarding from 2017

September 2016

From A*-G to 9-1

While GCSE grades are changing from A*-G to 9-1, our commitment to awarding grades that fairly reflect a learner's performance remains as strong as ever.

We set new grade boundaries every year for every assessment, and our thorough awarding process will apply to the new 9-1 grades, too.

How we set grade boundaries

We set new grade boundaries – the minimum number of marks needed to achieve each grade – for each qualification, every year, once they have been completed by students and marked by examiners.

This means that small variations in the difficulty of assessments each year do not impact students’ outcomes – and that you can rely on our awarding being accurate, reliable, and offering the quality your students deserve.

Here’s an overview of how we’ll set each 9-1 grade boundary
Want to know more about the current process?

How do our senior examiners, responsible officers, awarding officers work together?

Who oversees the process?

What reports and evidence do they use?

How are the boundaries signed off?

View our short film to find out more
## Setting initial grade boundaries

Let’s start with something familiar: GCSEs with grades A*-G.

Our teams of senior examiners and awarding officers set the ‘key’ A, C and F grade boundaries, based on students’ work and feedback from examiners:

**Example**

<table>
<thead>
<tr>
<th>(Max)</th>
<th>A*</th>
<th>A</th>
<th>B</th>
<th>C</th>
<th>D</th>
<th>E</th>
<th>F</th>
<th>G</th>
</tr>
</thead>
<tbody>
<tr>
<td>100</td>
<td>78</td>
<td>52</td>
<td>18</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Setting initial grade boundaries

The other grade boundaries are then calculated to be at equally spaced intervals between the key grade boundaries.

**Example:**
The number of marks needed for the B/C boundary is determined by the distance between A/B and C/D, divided by two.

\[
\frac{52}{2} = 26
\]

A similar calculation is used to set the A*, D, E and G boundaries.
Setting the initial grade boundaries

What about the new 9-1 grade boundaries?

We’ll set these key boundaries in exactly the same way – and with a range of rigorous checks and modelling to ensure they are right.

Using prior attainment data, all boards will ensure that there is statistical alignment between the key boundaries of 7/A, 4/C and the bottom of grade 1/G:
Determining key grade boundaries

We use **National prediction matrices** to estimate the proportion of students in a particular cohort that we expect to achieve each key grade (A, C and F or 7, 4 and 1).

The matrices:
- are created annually
- are based on an agreed reference year across awarding organisations
- relate to prior attainment at KS2, and the GCSE outcomes within a specific subject.

This is [how Ofqual ensure interboard alignment](#).
Refining the grade boundaries

Example:
Awarding organisations made predictions for outcomes of the summer 2015 cohort based on the average of the national relationships between:

- GCSE outcomes in 2011, and KS2 outcomes for the same learners in 2006
- GCSE outcomes in 2012, and KS2 outcomes for the same learners in 2007

Each awarding organisation applies these relationships to their entered cohort of 16 year olds. This provides a benchmark prediction of the proportion that we expect to achieve each key grade for example:

- A: 20.1%
- C: 75.4%
- G: 98.1%
Refining the grade boundaries

We then undertake modelling to ensure the grade boundaries will result in the grade being awarded to the predicted number of students.

We refer to additional information about:
- the level of difficulty of each paper
- how each component should sensible contribute to the overall qualification
- the impact on the overall cohort performance, ie on different age groups
- preliminary recommendations from the Senior Examining team.
Confirming the grade boundaries

Our subject experts review each statistically recommended boundary to judge whether the quality of work represents a borderline student response. They do this by reviewing scripts against:

- grade descriptors
- sample work from grade borderlines in the previous exam series.

They review the quality of work in order to identify a range within which the grade boundary may fall. For example:

<table>
<thead>
<tr>
<th>E</th>
<th>F</th>
</tr>
</thead>
<tbody>
<tr>
<td>32</td>
<td>31</td>
</tr>
<tr>
<td>30</td>
<td>29</td>
</tr>
<tr>
<td>28</td>
<td>27</td>
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<td>26</td>
<td>25</td>
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<tr>
<td>24</td>
<td>23</td>
</tr>
<tr>
<td>22</td>
<td></td>
</tr>
</tbody>
</table>

**Borderline range:** if the statistically recommended grade boundary falls within the experts’ range of borderline marks, it is likely this will be the final recommended grade boundary.
Awarding grade 9

Ofqual have now confirmed that grade 9 will be set by applying this formula:

\[ 7\% + 0.5 \times (\% \text{ of those awarded grade 7 or above}) \]

So, if 20.1% of 16 year olds achieved the grade 7:

\[ = 7 + 0.5 \times (20.1) \]
\[ = 7 + 10.05 \]
\[ = 17.05\% \text{ of } 20.1 \]
\[ = 3.42\% \text{ of 16 year olds would get a grade 9. This will determine where the grade boundary would need to be set to ensure this proportion of students attain the grade.} \]

Once this grade boundary had been determined then the grade 8 can be set - calculated arithmetically between the grade 9 and 7 established boundaries.
In summary

<table>
<thead>
<tr>
<th>Grade</th>
<th>How set</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>$7% + 0.5 \times (% \text{ of those awarded grade 7 or above})$</td>
</tr>
<tr>
<td>8</td>
<td>Arithmetically calculated</td>
</tr>
<tr>
<td>7</td>
<td>Key boundary primarily statistically driven</td>
</tr>
<tr>
<td>6</td>
<td>Arithmetically calculated</td>
</tr>
<tr>
<td>5</td>
<td>Arithmetically calculated</td>
</tr>
<tr>
<td>4</td>
<td>Key boundary primarily statistically driven</td>
</tr>
<tr>
<td>3</td>
<td>Arithmetically calculated</td>
</tr>
<tr>
<td>2</td>
<td>Arithmetically calculated</td>
</tr>
<tr>
<td>1</td>
<td>Key boundary primarily statistically driven</td>
</tr>
</tbody>
</table>
ALWAYS LEARNING