



GCSE Maths OCR Predicted Papers - How we created these papers

Overview

We have created 4 sets of predicted papers for GCSE Mathematics, for both foundation tier and higher tier, with mark and topic coverage based on the [OCR GCSE Mathematics Past and Sample Papers](#) provided on their website, along with the content specified in the [OCR GCSE Mathematics Specification](#) and “[Exploring our question papers](#)” document.

Each physical paper has been designed to look like the OCR paper based exams, with the mark schemes formatted and broken down to be easy to follow.

Format and Marks

Our sets of predicted papers are split up into three papers, resembling that of the OCR format. Paper 2 is a non-calculator paper, with Papers 1 and 3 being calculator papers. All papers are 100 marks each.

Further, each paper contains a mix of question types, including short answer questions, single mark questions and multi-step problems.

Some questions are standalone questions, whereas other questions consist of multiple parts and can require using the answer to a previous part of a question, or not. These part questions may vary in the level of demand.

This corresponds to what is seen on the OCR past papers and sample papers.

Across each paper, we have aimed to a similar coverage of questions with different numbers of marks of that of the OCR past papers and sample papers:

- on both foundation and higher, there are a mixture of 1-6 mark single questions (i.e. not the total of a question containing multiple parts).

Distribution of Topics and Skills

Content from any part of the specification can be assessed in each higher paper, and where applicable in each foundation paper. Across each set of papers, the approximate weighting of the marks assigned to each of the 6 topic areas has been allocated to match OCR exams:

Tier	Topic Area	Weighting
Foundation	Number	25%
	Algebra	20%
	Ratio, Proportion and Rates of change	25%
	Geometry and Measures	15%
	Statistics	15%
	Probability	
Higher	Number	15%
	Algebra	30%
	Ratio, Proportion and Rates of change	20%
	Geometry and Measures	20%
	Statistics	15%
	Probability	

Additionally, each set has been designed to match the approximate percentage breakdown of Assessment Objectives (AO):

Assessment Objectives		Foundation	Higher
AO1	Use and apply standard techniques	50%	40%
AO2	Reason, interpret and communicate mathematically	25%	30%
AO3	Solve problems within mathematics and in other contexts	25%	30%
Total		100%	100%

Further to this, the marks are distributed across the three content columns of the OCR specification accordingly:

On the foundation papers:

- The 50 marks that require the lowest demand (Grade 1 - lower Grade 3 questions) feature content from the “Initial Learning ...” column only.
- The remaining 50 marks (upper Grade 3 - Grade 5 questions) feature content from both the “Initial Learning ...” and the “Foundation tier ...” columns.

On the higher papers:

- The 50 marks that require the lowest demand (Grade 4 - Grade 6 questions) feature content from the “Initial Learning ...” and “Foundation tier ...” columns.
- The remaining 50 marks (Grade 7 - Grade 9 questions) will feature content from all three columns.

For each paper, we have aimed to increase the mathematical demand as the student progresses through the paper.

Assessment Difficulty

Each of the sets of papers have been designed to match the difficulty of a corresponding OCR GCSE Maths Exam series, based off of the following grade boundaries:

Higher

Level	9	8	7	6	5	4	3	2	1
Mark	256	213	171	136	102	68	51	N/A	N/A

Foundation

Level	5	4	3	2	1
Mark	189	144	104	64	24