# MME. 

## GCSE Maths AQA 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 the mark and topic coverage based on the AQA GCSE Mathematics Past and Sample Papers provided on their website, along with the content specified in the AQA GCSE Mathematics Specification.

Each physical paper has been designed to look like the AQA 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 AQA format. Paper 1 is a non-calculator paper, with Papers 2 and 3 being calculator papers. All papers are 80 marks each.

Further, each paper contains a mix of question types, including multiple choice questions, 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 AQA 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 AQA past papers and sample papers:

- on foundation, there are a mixture of 1-5 mark single questions (i.e. not the total of a question containing multiple parts)
- on 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 AQA exams:

| Tier | Topic Area | Weighting |
| :--- | :--- | :--- |
| Foundation | Number | $25 \%$ |
|  | Algebra | $20 \%$ |
|  | Ratio | $25 \%$ |
|  | Geometry | $15 \%$ |
|  | Probability and statistics (combined) | $15 \%$ |
| Higher | Number | $15 \%$ |
|  | Algebra | $30 \%$ |
|  | Ratio | $20 \%$ |
|  | Geometry | $20 \%$ |
|  | Probability and statistics (combined) | $15 \%$ |

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 <br> mathematically | $25 \%$ | $30 \%$ |
| AO3 | Solve problems within mathematics and in other <br> contexts | $25 \%$ | $30 \%$ |
| Total | $100 \%$ | $100 \%$ |  |

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 AQA GCSE Maths Exam series, based on the following grade boundaries:

Higher

| Level | 9 | 8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 |
| :--- | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Mark | 192 | 155 | 119 | 90 | 62 | 34 | 20 | N/A | N/A |

## Foundation

| Level | 5 | 4 | 3 | 2 | 1 |
| :--- | :---: | :---: | :---: | :---: | :---: |
| Mark | 145 | 108 | 79 | 51 | 23 |

