

# MATHS – GETTING A GRADE 4

WHAT OUR PUPILS NEED TO DO BETWEEN NOW AND MAY 2026 AND HOW YOU CAN SUPPORT THEM

# The OCR foundation maths GCSE

- 3 papers – two with a calculator, one without a calculator
- Each paper is 90 minutes long
- Grade boundaries for the last few years were (out of 300)

|     |      |      |   |     | Grade |     |     |     |     |     |    |    |    |
|-----|------|------|---|-----|-------|-----|-----|-----|-----|-----|----|----|----|
|     |      |      |   |     | 9     | 8   | 7   | 6   | 5   | 4   | 3  | 2  | 1  |
| OCR | June | 2023 | F | 300 |       |     |     |     | 178 | 129 | 92 | 56 | 20 |
| OCR | June | 2023 | H | 300 | 242   | 193 | 144 | 109 | 74  | 39  | 21 |    |    |
| OCR | June | 2024 | F | 300 |       |     |     |     | 180 | 131 | 93 | 55 | 18 |
| OCR | June | 2024 | H | 300 | 245   | 195 | 145 | 110 | 76  | 42  | 25 |    |    |
| OCR | June | 2025 | F | 300 |       |     |     |     | 182 | 134 | 95 | 56 | 17 |
| OCR | June | 2025 | H | 300 | 258   | 212 | 166 | 126 | 86  | 47  | 27 |    |    |

- So to get a grade 4, you need around 45% of the overall marks and to get a grade 5, you need 60% on average.

# Our advice to pupils about how to revise maths

- Little and often – spend 30 to 45 minutes on maths approx. 2-3 times per week
- You need to be doing lots of practice questions rather than reading notes; things like Sparx, YouTube (TL maths), reading revision guides can help but only if you follow them with some past paper questions on what you have revised
- Use your RAG sheets from the previous mock and the upcoming non-calculator mock to identify topics that you struggle with
- Focus on the basics i.e. topics from early on in the past papers; these are the easiest ones to practise by yourself
- Bring any questions that you are stuck on into form/class and ask for help when appropriate; if it is a complex question, you may want to email it to your teacher first
- If you do these things, you should make at least a grade's progress from your mock

# The extra things we will do to support pupils

- Intervention is on Tues until 15:35 – anyone is welcome but please go to the correct room (M4: foundation, M7: grade 5/6, M8: grade 7, M5: grade 8/9, M9: Mrs Barker's group by invitation, JB3:drop-in)
- We also have intervention happening within the school day for selected pupils – pupils from sets 5 and 6 who we feel need additional support have been selected to go to a session with Mrs Barker (our HLTA) for one lesson a fortnight to ensure that we identify and rectify gaps with the 'basics'. There will also be drop-down revision sessions and other initiatives TBC
- Our Y11 maths Google Classroom has useful resources to help pupils with effective revision
- Revision posters with key topics are on the classroom and will be displayed in school
- All pupils have been given a pack of past papers and the opportunity to buy revision guides – if you missed the order, please wait until next week and I will sell the remaining revision guides at £3.25 per book so you can send your child in with cash

# GRADE 4<sup>to</sup>5

## KEY FOUNDATION PAPER TOPICS

### NUMBER

- Fractions, decimals and percentages (using operations and ordering/comparing)
- Factors and multiples (HCF / LCM/ prime factors)
- Standard form
- Rounding / estimating & error intervals

### RATIO, PROPORTION & RATES OF CHANGE

- Direct & inverse proportion (including best buys)
- Ratio (sharing & simplifying)
- Percentage change
- Simple & compound interest
- Real life graphs

### ALGEBRA

- Laws of indices  $2x + 4y = 0$
- Simplifying & substitution
- Expanding & factorising
- Change of subject
- Coordinates and graphs
- Equation of a line
- Forming & solving equations
- Inequalities
- Solving quadratic equations
- Sequences (nth term)

### STATISTICS

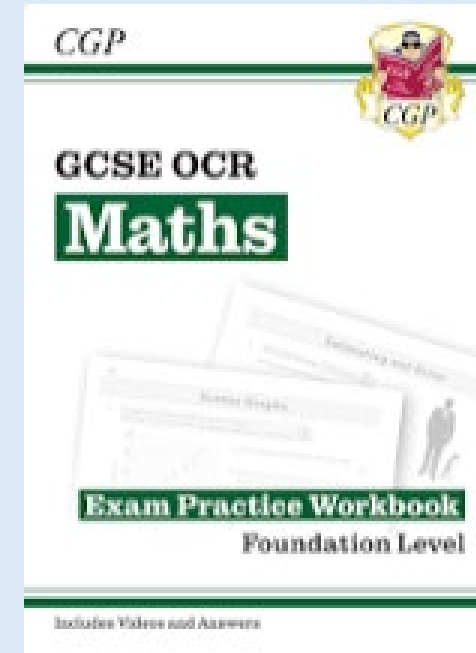
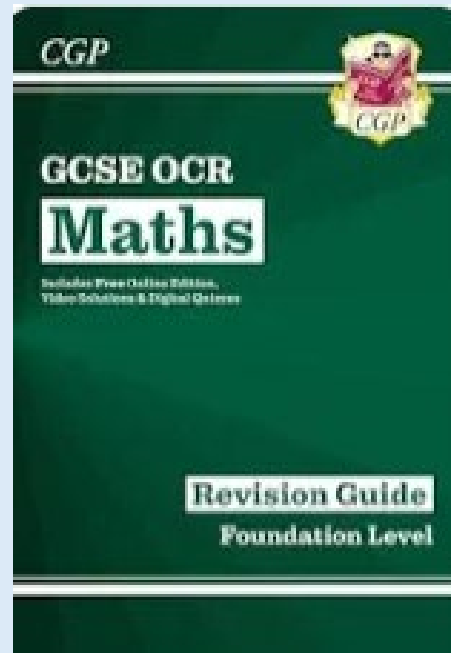
- Scatter graphs
- Averages & range
- Time series (line graphs)
- Sampling

### GEOMETRY

- Angle facts & properties
- Transformations
- Similarity + congruence
- Properties of 2D & 3D shapes
- Constructions & loci
- Perimeter & area (including circles)
- Pythagoras & trigonometry
- Volume & surface area

### PROBABILITY

- Rules of probability
- Listing outcomes
- Frequency trees & tree diagrams
- Theoretical & experimental probability



## Revision Checklist - Foundation Tier

Please note - this list does not contain **every** topic that could appear in your exams

| Topic Name | Description  | Corbett Video  | Maths Genie Video                 | Practice questions                   | Answers                              |
|------------|--|--|-----------------------------------|--------------------------------------|--------------------------------------|
| Decimals   | Decimal operations - addition and subtraction                | <a href="#">Adding Video</a>                               | <a href="#">Subtracting Video</a> | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | Decimal operations - multiplication                          | <a href="#">Video</a>                                      | <a href="#">Video</a>             | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | Decimal operations - division (dividing a decimal)           | <a href="#">Video</a>                                      | <a href="#">Video</a>             | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | Decimal operations - division (dividing <b>by</b> a decimal) | <a href="#">Video</a>                                      | <a href="#">Video</a>             | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | Addition and subtraction with negative numbers               | <a href="#">Video</a>                                      | <a href="#">Video</a>             | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | Multiplication with negative numbers                         | <a href="#">Video</a>                                      | <a href="#">Video</a>             | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | Division with negative numbers                               | <a href="#">Video</a>                                      | <a href="#">Video</a>             | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | BIDMAS   | <a href="#">Video</a>                                      | <a href="#">Video</a>             | <a href="#">Exam Style Questions</a> | <a href="#">Answers</a>              |
|            | Number types   | Number definitions and terms (squares, factors, multiples) | <a href="#">Video</a>             | <a href="#">Video</a>                | <a href="#">Exam Style Questions</a> |

# If English isn't your first language.....

- Some of the questions will be quite wordy but you should be able to get a grade 4 just by answering the shorter 'fluency' based questions correctly as these comprise at least 50% of the paper
- Focus on the 1<sup>st</sup> half of past papers in your revision – do this for all the OCR past papers available on the website and you will see how formulaic they are!
- Make a list of key words and write their translation and a worked example down for each – quite a few marks on a foundation paper just require you to know some vocabulary (e.g. 'write down a prime number between 1 and 10')
- Learn the key command words and make sure you know what you are being asked to do (e.g. 'estimate')
- Investigate apps – Quizlet is great for revising key vocabulary

## Number

- **Integers:** Whole numbers, both positive and negative.
- **Odd, Even, Prime, Factor (divisor), Multiple, Common factor, Common multiple:** Terms used in number theory.
- **Square, Cube, Root:** Powers and their inverses.
- **Product, Quotient, Sum, Difference:** The results of multiplication, division, addition, and subtraction, respectively.
- **Reciprocal:** One divided by a number.
- **Decimal place (dp), Significant figures (sf):** Terms related to rounding and accuracy.
- **Hierarchy of operations:** Also known as BIDMAS/BODMAS.

## Algebra

- **Expression, Equation, Formula, Identity:** Different types of algebraic statements.

| Key Word | Translation     | Definition                   | Example   |
|----------|-----------------|------------------------------|---|
| Integer  | الأعداد الصحيحة | Whole number<br>العدد الصحيح | 1, 2, 7, 124 <input checked="" type="checkbox"/><br>0.7, $\frac{2}{5}$ <input type="checkbox"/> |

## Command words (specific mathematical meaning)

Some of these command words will be in your exam. Make sure you read the full question in your exam.

|  |  |
|--|--|
| <b>Estimate</b>                            | Check, without a calculator, the result of a calculation by using suitable approximations.<br>OR<br>Give a reasonable numeric value that can be justified by the information in the question.  |
| <b>Construct</b>                           | Use mathematical instruments to draw accurately. Geometric instruments may be specified in the question. When constructing with compasses and a straight edge, show all of the arcs and lines that you use to make the construction. |
| <b>Shade</b>                               | Indicate, on a graph or a drawing, a region according to given conditions.   |
| <b>Enlarge, Rotate, Reflect, Translate</b> | Carry out the requested transformation.  |
| <b>Expand, Multiply out</b>                | Multiply to remove brackets from a given expression to obtain an equivalent.   |
| <b>Factorise</b>                           | Simplify a given expression by writing it as a product of two or more factors.   |
| <b>Rearrange</b>                           | Used with formulae, when students are requested to change the subject of a formula.  |
| <b>Round</b>                               | Write values correct to the specific accuracy required.  |
| <b>Simplify</b>                            | Make a given algebraic expression/fraction/ratio as simple as possible.  |
| <b>Solve by</b>                            | Use the method specified in the question to solve an equation or inequality.   |
| <b>Write... in the form...</b>             | Manipulate a given algebraic expression/fraction/ratio into the specified form or provide an answer in a particular way e.g. when giving an exact answer as a surd.  |

N.B. Other words that are commonly used in English are used with their standard English meaning.

[brownm01@horsforthschool.org](mailto:brownm01@horsforthschool.org)

Email me if there is anything else we can do to support you and your child.