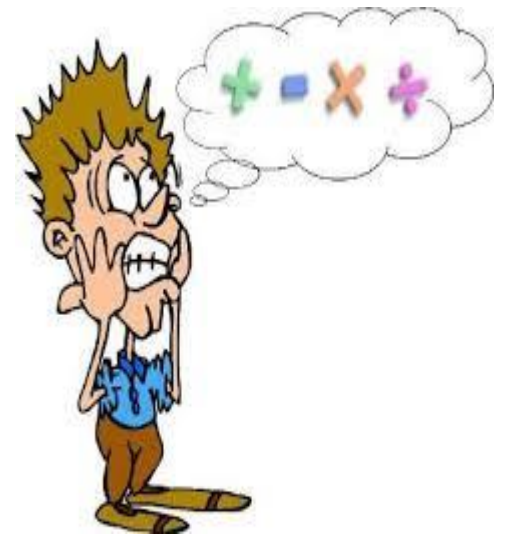
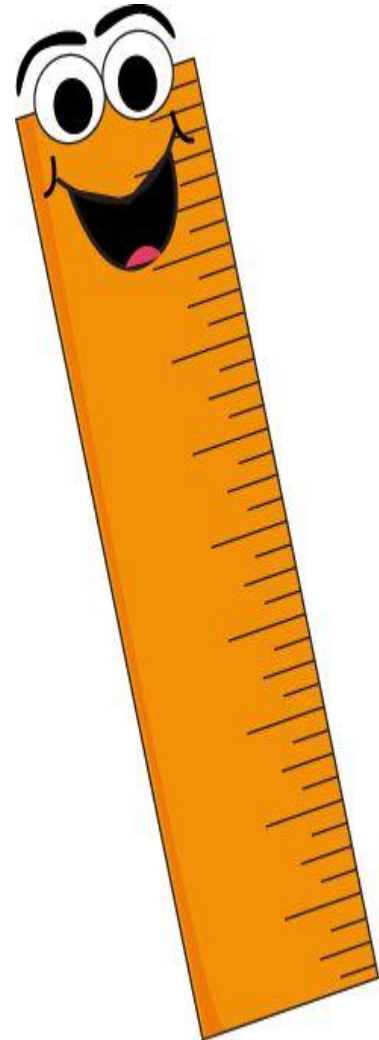


# GCSE Mathematics



# Main Changes to the GCSE Maths Qualification

- There is more content to teach with **harder topics being introduced**. Topics that were previously on Higher Tier are now on Foundation Tier and new content has been introduced at Higher Tier.
- There is a **greater emphasis on problem-solving and mathematical reasoning**, with more marks in the GCSE exams being allocated to these higher-order skills.
- The **total examination time is increasing being covered in 3 x 1½ hour papers**
- Students will also have to **memorise formulae**.
- There is a **new grade structure from 9 to 1**, with fewer marks at the lower grades and more marks at the higher grades.



# GCSE Maths Examinations

**3 papers**

**Paper 1      80marks**

**1½hours      Non-Calculator**

**Thursday 24<sup>th</sup> May      9am**

**Paper 2      80marks**

**1½hours      Calculator**

**Thursday 7<sup>th</sup> June      9am**

**Paper 3      80marks**

**1½hours      Calculator**

**Tuesday 12<sup>th</sup> June      9am**



# New Foundation Topics

<b>Index laws: zero and negative powers (numeric and algebraic)</b>	<b>Solve quadratic equations by factorisation</b>
Standard form	Plot cubic and reciprocal graphs, recognise quadratic and cubic graphs
Compound interest and reverse percentages	Trigonometric ratios in 2D right-angled triangles
Expand the product of two linear expressions	Lengths of arcs and areas of sectors of circles
Factorise quadratic expressions in the form $x^2 + bx + c$	Mensuration problems
Solve linear/linear simultaneous equation	Vectors (except geometric problems/proofs)
Density	Tree diagrams

# New Higher Topics

<b>Expand the products of more than two binomials</b>	<b>Deduce expressions to calculate the <math>n</math>th term of quadratic sequences</b>
Interpret the reverse process as the 'inverse function'; interpret the succession of two functions as a 'composite function' (using formal function notation)	Calculate and interpret conditional probabilities through Venn diagrams
Deduce turning points by completing the square	Simple geometric progressions including surds, and other sequences
Calculate or estimate gradients of graphs and areas under graphs, and interpret results in real-life cases (not including calculus)	

There are also topics new to both Higher and Foundation

# What proportion of each paper is Number, Algebra etc

Tier	Number	Algebra	Ratio & Proportion	Statistics & Probability	Geometry & Measures
Higher	15%	30%	20%	15%	20%
Foundation	25%	20%	25%	15%	15%

# What can your child do at school to achieve in Maths?

- Attend **EVERY** single lesson
- Arrive with the correct equipment including a working CALCULATOR preferably SCIENTIFIC
- Have a positive attitude – get involved – ask and answer questions
- Focus fully and avoid distractions
- Give every task 100%
- Attend revision classes
- Don't 'blame' anyone else
- Make sure they know the basics
- Ask their teacher for extra materials – we have plenty of old past papers that may not necessarily cover all of the new content but provide valuable practice or we can provide booklets of certain topics.

# And at home...

- Complete homework to the very best of their ability and seek help if needed.
- Prioritise!!!! – the easiest thing is to revise the subjects and topics that they are confident with but it is the complete opposite of what they need to do
- Write a revision timetable and stick to it
- Extra work at home – the more your child does at home the best chance they have of reaching their full potential
- Ensure they have a revision guide/revision book
- Start revising now!!!
- Check SMHW – ask your teacher to put extra materials and solutions on for you to use



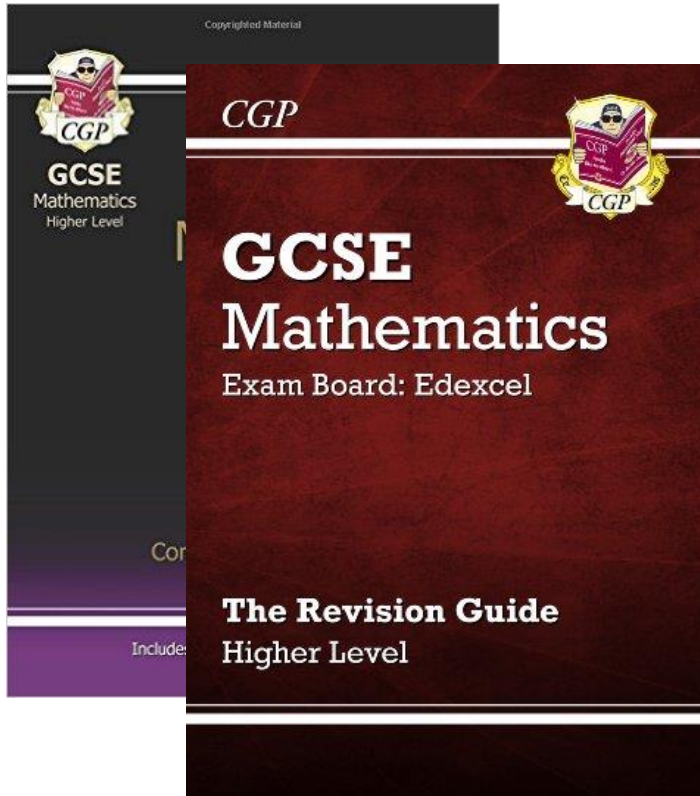


# In a nutshell...

- The only way to get better at maths is PRACTICE, PRACTICE, PRACTICE.
- Reading a revision guide without working through questions does not work for the vast majority of pupils.
- If your son/daughter says they have no maths homework point out that there is plenty they can be doing and that merely completing their homework is not enough



# Revision Tools



Corbettmaths

## Books

## Websites

# 'Mathsy' Websites

[www.corbettmaths.com](http://www.corbettmaths.com)

[www.keshmaths.com](http://www.keshmaths.com)

[www.justmaths](http://www.justmaths)

Login

CardinalStudent

password

Cardinal

<http://www.bbc.co.uk/education/subjects/z38ycw>

[www.mathsgenie.co.uk/gcse.html](http://www.mathsgenie.co.uk/gcse.html)

