Passport to a
Strong Pass (FOUNDATION)

Name:_____

edexcel

Sparx Maths

MATHEMATICS

What you need to succeed

☐ Belief than anyone can do maths

☐ Revision timetable created

☐ Casio/scientific Calculator

☐ Geometry set

☐ Edexcel revision book (Foundation)

☐ I know my SPARX Login

☐ How to self-quiz

☐ I know my targets

☐ Exam techniques

☐ Get your mind right

☐ Know your calculator

☐ I know where to get help

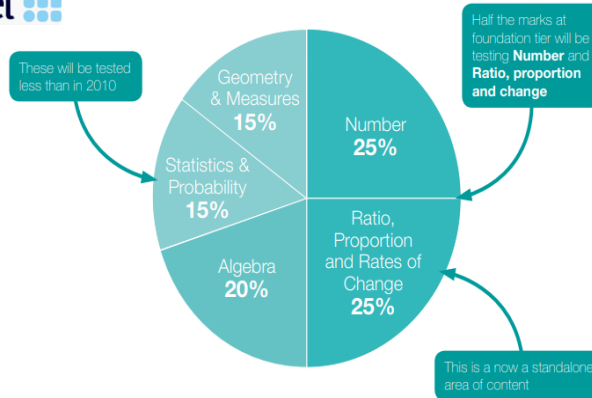# Maths exam information

Exam dates: edexcel

Paper 1 (non-calculator) -
Thurs 15th May 2025 (AM)

Paper 2 (calculator) -
Weds 4th June 2025 (AM)

Paper 3 (calculator) -
Weds 11th June 2025 (AM)

Foundation

These will be tested less than in 2010

Geometry & Measures **15%**

Statistics & Probability **15%**

Number **25%**

Half the marks at foundation tier will be testing **Number** and **Ratio, proportion and change**

Ratio, Proportion and Rates of Change **25%**

Algebra **20%**

This is a now a standalone area of content

Mock Exam dates:

Paper 1

Paper 2

Paper 3

Website	What's it useful for?	✔
www.montgomerymaths.co.uk	Revision resources, videos and links	
www.mathsgenie.co.uk/GCSE	Exam questions sorted by grade and topics with answers. Some video support	
www.corbettmaths.com	• 5 a day sheets —5 questions for every day of the year with answers. • Worksheets for every topic with video support and answers	
www.onmaths.com	Find the online mini-mocks that mark them as you go. Find the "Demon questions" for more challenge.	
www.ssddproblems.com—excellent for method selection	Sets of 4 questions that look the same on the surface but require different approaches (answers included)	
www.mathsbot.com	Visit the GCSE resources to create revision grids and practice papers with answers.	

Sparx Maths

Number

Topic	Topic code	R	A	G
Ordering positive integers	U600			
Ordering decimals	U435			
Ordering negative numbers	U947			
Adding and subtracting positive integers	U417			
Multiplying and dividing positive integers	U127, U453			
Adding and subtracting negative numbers	U742			
Multiplying and dividing negative numbers	U548			
Adding and subtracting decimals	U478			
Multiplying and dividing with place value	U735			
Multiplying and dividing with decimals	U293, U868			
Order of operations	U976			
Prime numbers, prime factorisation	U236, U739			
Factors, multiples, HCF and LCM	U211, U751, U529			
Powers and roots	U851			
Using standard form	U330, U534			
Calculating with standard form	U264, U290, U161			
Equivalent fractions and simplifying fractions	U704, U646			
Mixed numbers and improper fractions	U692			
Ordering fractions	U746			
Addition and subtraction of fractions	U736, U793			
Multiplication and division of fractions	U475, U544			
Converting and ordering fractions, decimals and percentages	U888, U594			
Fractions of amounts	U881, U916			
Percentages of amounts	U554, U349			
Percentage change	U773, U671			
Reverse percentages	U286, U278			
Simple interest	U533			
Rounding	U480, U298			
Rounding to significant figures	U731, U965			
Estimating answers	U225			
Value for money	M681			

Algebra

Topic	Topic code	R	A	G
Algebraic expressions	U613			
Collecting like terms	U105			
Substitution	U201, U585, U144			
Expanding brackets	U179, U768			
Factorising expressions	U365			
Index laws	U235, U694, U662, U103			
Changing the subject	U556			
Coordinates	U789, U889			
Midpoints	U933			
Plotting straight line graphs	U741			
Equations of straight line graphs	U315, U669			
Parallel lines	U377			
Distance-time graphs	U403, U914, U462, U966			
Quadratic graphs	U989, U667			
Linear equations	U755, U325, U870, U505, U599			
Quadratic expressions and equations	U178, U228			
Linear sequences	U213, U530, U498, U978			
Other sequences	U958, U680			

Ratio and proportion

Topic	Topic code	R	A	G
Simplifying ratios	U687			
Sharing amounts in a ratio	U753, U577			
Converting between ratios, fractions and percentages	U176			
Direct proportion	U721, U640			
Inverse proportion	U357, U364			
Proportion graphs	U238			
Units of measure: Length, Mass and Capacity	U102, U388			
Units of measure: Time	U902			
Units of measure: Area	U248			
Currency conversion	U610			
Conversion graphs	U652, U638, U862			
Compound units: Speed	U151			

Sparx Maths

Geometry

Topic	Topic code	R	A	G
Properties of 2D shapes	U121, U849			
Properties of 3D shapes	U719			
Nets of 3D shapes	U761			
Angles: Measuring, Drawing and Estimating	U447			
Angle on a line and about a point	U390			
Vertically opposite angles	U730			
Angles on parallel lines	U826			
Angles in a triangle	U628			
Combining angle facts	U655			
Angles in a quadrilateral	U732, U329			
Angles in polygons	U427			
Bearings	U525, U107			
Translations	U196			
Reflections	U799			
Enlargements	U519			
Rotations	U696			
Congruence	U790, U866			
Area and perimeter of simple shapes	U993, U970, U351, U226			
Area of triangles, parallelograms and trapeziums	U945, U575, U424, U265, U343			
Circles	U767			
Circumference	U604, U221			
Circle area	U950, U373			
Surface area	U929, U259, U871			
Volume of cuboids	U786			
Volume of prisms and cylinders	U174, U915			
Similar shapes	U551, U578			
Scale diagrams	U257			

Probability

Topic	Topic code	R	A	G
Probability scale	U803			
Probability of single events	U408, U510, U683			
Experimental probability	U580			
Expected outcomes	U166			
Listing elements in a set	U748, U296			
Probability from Venn diagrams	U476			
Frequency trees	U280			
Sample space diagrams	U104			
Tree diagrams	U558, U729			

Statistics

Topic	Topic code	R	A	G
Collecting data, frequency tables	U322, U120			
Two-way tables	U981			
Bar charts	U363, U557			
Pictograms	U506			
Pie charts	U508, U172			
Stem and leaf diagrams	U200, U909			
Mode	U260			
Mean	U291			
Median	U456			
Range	U526			
Choosing averages	U717			
Scatter graphs	U199, U277, U128			

Effort score tracker

Week Beginning	Effort score 1-5		SPARX tasks completed?	Practice exam done?	Independent practice?
	Class	Home			
13/1/2025					
20/1/2025					
27/1/2025					
3/2/2025					
10/2/2025					
HALF TERM 17/2/2025					
24/2/2025					
3/3/2025					
10/3/2025					
17/3/2025					
24/3/2025					
31/3/2025					
EASTER HOLIDAYS					
EASTER HOLIDAYS					
Tuesday 22/4/2025					
28/4/2025					
5/5/2025					
Paper 1 week 12/5/2025					
19/5/2025					
HALF TERM 26/5/2025					
Paper 2 week 2/6/2025					
9/6/2025					

Intervention so far:
- Exam analysis: students should have gone through the past exam, highlighting key mistakes.
- Complete end of term exam question-by-question analysis.
- Class teacher used this to inform planning and intervention sessions.
- Students should have filled in the RAG analysis for each exam.
- RAG has links to the SPARXs website so students can look up any Red or Amber topics.
- Set small manageable tasks in class
- Praise when something is achieved give out postcards .
- Extra work checks are used throughout lessons to check understanding
- Targeted questions throughout lessons to check understanding.

TARGETS:
- To push yourself in class to attempt the more difficult questions
- Show full working out for each stage in the question.
- Complete all learning task to a good standard
- Catch up on ALL SPARX homework
- Volunteer to answer questions in class discussions
- Use time at home to review red topics from end of term exam.

Foundation Tier Formulae Sheet

Perimeter, area and volume

Where a and b are the lengths of the parallel sides and h is their perpendicular separation:
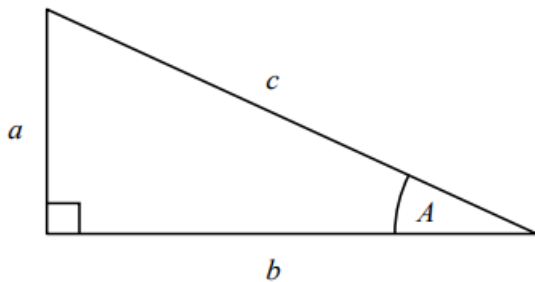
$$\text{Area of a trapezium} = \frac{1}{2}(a+b)h$$

Volume of a prism = area of cross section × length

Where r is the radius and d is the diameter:

$$\text{Circumference of a circle} = 2\pi r = \pi d$$

$$\text{Area of a circle} = \pi r^2$$

Pythagoras' Theorem and Trigonometry

In any right-angled triangle where a, b and c are the length of the sides and c is the hypotenuse:

$$a^2 + b^2 = c^2$$

In any right-angled triangle ABC where a, b and c are the length of the sides and c is the hypotenuse:

$$\sin A = \frac{a}{c} \quad \cos A = \frac{b}{c} \quad \tan A = \frac{a}{b}$$

Compound Interest

Where P is the principal amount, r is the interest rate over a given period and n is number of times that the interest is compounded:

$$\text{Total accrued} = P\left(1+\frac{r}{100}\right)^n$$

Probability

Where P (A) is the probability of outcome A and P (B) is the probability of outcome B:

$$P(A \text{ or } B) = P(A) + P(B) - P(A \text{ and } B)$$

Revision Timetable

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	
Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	
Break – 1 hour	Break – 1 hour	Break – 1 hour	Break – 1 hour	Break – 1 hour	Break – 1 hour	
Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	
Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Day Off
Break – 1 hour	Break – 1 hour	Break – 1 hour	Break – 1 hour	Break – 1 hour	Break – 1 hour	
Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	Break – 5 mins	