Strands	Step 1	Step 2	Step 3	Step 4	Step 5	Step 6	Step 7	Step 8	Step 9	Step 10
Number		Number 01	Number 01							
Number			Number 02	Number 02						
Number			Number 03	Number 03						
Number					Number 04	Number 04				
Number						Number 05	Number 05			
Number							Number 06	Number 06		
Calculations		Calculations 01	Calculations 01							
Calculations		Calculations 02	Calculations 02							
Calculations			Calculations 03	Calculations 03						
Calculations				Calculations 04	Calculations 04					
Fractions, Decimals and Percentages		FDP 01	FDP 01							
Fractions, Decimals and Percentages			FDP 02	FDP 02						
Fractions, Decimals and Percentages				FDP 03	FDP 03					
Fractions, Decimals and Percentages					FDP 04	FDP 04				
Measure			Measure 01	Measure 01						
Measure				Measure 02	Measure 02					
Ratio			Ratio 01	Ratio 01	Ratio 01					
Ratio				Ratio 02	Ratio 02					
Ratio					Ratio 03	Ratio 03				
Ratio						Ratio 04	Ratio 04			
Algebra		Algebra 01	Algebra 01							
Algebra			Algebra 02	Algebra 02						
Algebra				Algebra 03	Algebra 03					
Algebra					Algebra 04	Algebra 04				
Graphs				Graphs 01	Graphs 01					
Graphs					Graphs 02	Graphs 02				
Graphs						Graphs 03	Graphs 03			
Sequences and Further Algebra	Sequences 01	Sequences 01	Sequences 01							
Sequences and Further Algebra			Sequences 02	Sequences 02	Sequences 02					
Sequences and Further Algebra				Sequences 03	Sequences 03	Sequences 03				
Sequences and Further Algebra							Sequences 04	Sequences 04		
Geometry		Geometry 01	Geometry 01							
Geometry			Geometry 02	Geometry 02						
Geometry			Geometry 03	Geometry 03	Geometry 03					
Geometry					Geometry 04	Geometry 04				
Geometry							Geometry 05	Geometry 05		
Geometry							Geometry 06	Geometry 06		
Shape			Shape 01	Shape 01						
Shape				Shape 02	Shape 02					
Transformations		Transformation 01	Transformation 01	Transformation 01						
Transformations				Transformation 02	Transformation 02					
Transformations					Transformation 03	Transformation 03				
Data			Data 01	Data 01						
Data				Data 02	Data 02					
Data				Data 03	Data 03					
Probability			Probability 01	Probability 01						
Probability				Probability 02	Probability 02					
Probability					Probability 03	Probability 03				

Maths KS3 Flightpath

Traditionally the maths curriculum is split into the following six strands in line with the GCSE specification and National Curriculum; Number, Algebra, Ratio and Proportion, Geometry and Measure, Probability, and Statistics.

At QKA we have further sub-divided these strands, to allow us to assess students performance in different areas with more confidence. The strands are:

- Number
- Calculations
- Fractions, Decimals and Percentages
- Measure
- Ratio
- Algebra
- Graphs

- Sequences and Further Algebra
- Geometry
- Shape
- Transformations
- Data
- Probability

Within these strands, students study smaller blocks, which are detailed in the table opposite. These increase in difficulty through KS3.

Students write an assessment at the end of each block, and are awarded a step. These assessment results are shared with the students and inform our teaching and planning.

For each topic test, depending on the difficulty, students can achieve 1 of 4 steps, depending on the percentage scored (20%, 40%, 60%, 80%) and difficulty of the block. Please refer to the table opposite for full details.

For the progress reports that you receive from QKA twice per academic year, a holistic assessment is made of the 'best fit' step. This is based on performance in the full range of assessments completed this year to date, as students perform differently from strand to strand.

Examples:

Katie in year 7 studies Sequences 01. She scores 23% on this test. This means she is awarded a step 1.
She then studies Algebra 01 and achieves 62%. This means she is awarded a step 3.
For the year 7 progress report, a holistic judgement is made, and Katie is awarded an overall step 2.

Jack in year 9 studies Graphs 02. He scores 78% on this test. This means he is awarded a step 7.
He then studies Algebra 04 and achieves 54%. This means he is awarded a step 6.
For the year 9 progress report, a holistic judgement is made, and Jack is awarded an overall step 6.

Strands	Key Concepts / Ideas
Number	Place Value (NU01) Directed Number (NU02) Estimation and bounds (NU03) Prime Numbers and Proof (NU04) Standard Index Form (NU05) Surds and Irrational Numbers (NU06)
Calculations	Adding and Subtractions with Integers and Decimals (CA01) Multiplication and Division with Integers and Decimals (CA02) Add and Subtract Fractions (CA03) Multiply and Divide Fractions (CA04)
Fractions, Decimals and Percentages	FDP Equivalence (FDP01) Fractions and Percentages of Amounts (FDP02) Fractions (FDP03) Percentages (FDP04)
Measure	Units of length, weight and capacity (ME01) Units of Area and Volume (ME01) Units of Time (ME02) Money and real life money problems (ME02)
Ratio	Ratio and Scale (RA01) Multiplicative Change - proportion and scale (RA02) Conversion Graphs (RA02) Best Buys (RA03) Inverse Proportion (RA03) Compund units and rates of change (RA04)
Algebra	Algebraic Notation (AL01) Algebraic Manipulation (AL01) (AL01) Equality and Equivalance (AL02) Expanding Brackets (AL03) Inequalities (AL03)(AL04) Solving equations with brackets (AL03) (AL04) Multi-step equations (AL04) Formula and Identities (AL03) Re-arranging Formula (AL04)
Graphs	Coordinates (GR01) Gradient (GR01) (GR02) Linear Graphs - plotting and recognising (GR01) Equations of linear Graphs (GR02) (GR03) Real Life Graphs (GR02) (GR03)
Sequences and Further Algebra	Describe and Continue and represent sequences (SE01) Find missing terms (SE01) Explain term to term rules (SE01) Generate sequences from a rule (SE02) Nth term of linear sequences (SE02) Laws of Indices (SE03) Conjectures and Generalisations (SE04)

Geometry	Identify, classify and draw angles (GE01) Identify and classify polygons (GE01) Construct Polygons (GE01) Pir Charts (GE01) Unerstand and use angle facts to solve problems (GE02) Angles on parallel lines (GE02) Loci and bisectors (GE03) (GE04) Congruence (GE04) Geometric reasoning and conjecture (GE05) Pythagoras (GE06)
Shape	Properties of Quadrilaterals (SH01) Construct angle and line bisectors (SH01) Perimeter and Area (SH01) Circles and Compound Shapes (SH02) Prisms and Nets (SH02) Plans and Elevations (SH02) Surface Area and Volume (SH02)
Transformations	Symmetry (TR01) Reflection (TR01) Rotation (TR02) Translation (TR02) Enlargement (TR03) Congruence and Similarity (TR03) Combined Transformations (TR03)
Data	Correlation (DA01) Types of Data (DA01) Frequency Tables (DA01) Two Way Tables (DA01) Statistical Enquiries (DA02) Bar Charts and Line Graphs (DA02) Pictograms and representations (DA02) Grouped Data (DA02) Comparing Distributions (DA02) Averages and Spread (DA03) Averages from a table (DA03)
Probability	Sets and Venns (PR01) Probability Scale (PE01) Outcomes - Single Event (PR01) (PR02) Sample Space Diagrams (PR02) (PR03) Probabilities from Two Way Tables (PR02) Experimental Probability / Frelative Frequency (PR03) Tree Diagrams (PR03) Conditional Probability (PR03)