Key Stage 3 Mathematics Overview

Year 7 Plan

Block	Week	Outline Summary	Weekly Summary (one entry per row)	Book chapter	Comment
1	1	Revision, Integers, powers and roots	Introduction and revision and starting Integers, Multiples, factors, prime numbers, Squares and square roots	0 + 1	
	2	Integers, powers and roots	negative numbers, more adding and subtracting negative and multiplying and dividing. Order of operations.	1	
	3	Baseline testing (2 lessons: aural and written)			Adventure trip Wed-Fri
	4	Expressions	Using letters for unknown numbers, simplifying expressions, expanding brackets	2	
	5	Expressions	Substitution into an expression + revision	2	
2	6	Move onto Ch 3 after quiz	1st lesson: quiz - all concepts first block to mark and revise what was forgotten.	Quiz + 3	Feedback to parents on quiz.
	7	Shapes & geometric reasoning 1	Substitution into an expression, angles, calculating angles, Triangles, quadrilaterals, symmetry	3	
	8	Fractions	Equal parts, equivalent fractions, mixed numbers	4	
	9	Fractions	Comparing adding and subtracting fractions, finding a fraction of an amount	4	
	10	Decimals	Place value, rounding + revision of fractions and algebra Multiplying and dividing by 10, 100, 1000, calculating with decimals, changing between fractions and decimals	5	
3	11	REVISION OF TERMS WORK			
	12	END OF TERM TEST			
	13	Go through exam, Practise topics based on the test results and Start Data		6.1 and 2	
	14	Processing, interpreting and discussing data	Continue Data	6.3 and 4	
	15	Data Problems + Christmas challenges			
4	16	Processing, interpreting and discussing data, Length, mass and capacity	Some Data revision and Length, Mass, Capacity	6 + 7.1, 7.2, 7.3	
	17	Length, mass and capacity	reading scales problems start solving equations	7.4, 8	
	18	Equations	equations with one operation, with two operations	8	
	19	Equations	Equations with brackets, using equations to solve problems	8	
	20	Shapes & geometric reasoning 2	Lines and angles, measurement and construction 2 lessons	9	
	21	Shapes and geometric reasoning 2 Presenting, interpreting and discussing data	Line/angle/mesurement and construction revision (1 lesson) Solids, Start discussing data- discrete and continuous and different types of graphs. Misleading graphs	9 +10	

5	22	Presenting, interpreting and discussing data	Pictograms, frequency diagrams, bar charts, bar-line graphs, frequency diagrams for grouped discrete data. Pie charts	10	
	23	Term 2 Exam			
	24	Area, perimeter and volume	Area and perimeter, compound chapes, cuboids and volume	11	
	25	Area, perimeter and volume	Recap area and volume + surface area + problem solving	11	
	26	Formulae	Deriving Formulae, substitutions, and revision	12	
6	27	Position and movement	reflection, translation, rotation, using coordinates,	13	
	28	Sequences+ Probability	number sequences, sequences from patterns of shapes Probability words, probability scale and calculating probabilities	14 + 15	
	29	Probability, Functions and graphs	estimating probabilities Functions, horizontal and vertical lines	15 + 16	
	30	Fractions,decimals and percentages + Planning and collecting data	(Describing part of amount), finding and using % of an amount, data collection sheets, Questionnaire design, (frequency tables)	17 + 18	
	31	Ratio and proportion	Ratio, dividing in a given ratio, proportion	19	
	32	Time and rates of change	Time, using timetables, graphs, revising this years past topics	20	
	33	End of year test	Revision		
7	34	End of year test			
	35	Identify areas of weakness and create strategies to improve	Practise topics based on the test results		
	36	Sets, Matrices	Intersection and union of sets, elements and subsets, adding and subtracting matrices, Multiplying a matrix by a number	21 + 22	
	37	Sets, Matrices	Intersection and union of sets, elements and subsets, adding and subtracting matrices, Multiplying a matrix by a number	21 + 22	
	38		Project to finish the year off		

Year 8 Plan

Block	Week	Outline Summary	Weekly Summary (one entry per row)	Book chapter	Video Links
1	1	Revision + Integers, powers and roots	Revision Quiz- Start +, -, x, / positive and negative integers, order of operations, squares and square roots, cubes and cube roots.	1	https://youtu.be/OTIb6xoBUwk
	2	Integers, powers and roots	Recap of week 1 + Prime factors, highest common factors and lowest common multiples	1	
	3	Expressions	Using letters for unknown numbers, multiplying algebraic terms, collecting like terms	2	Adventure Trip Wed - Fri
	4	Expressions	Using letters for unknown numbers, multiplying algebraic terms, collecting like terms	2	
	5	Expressions + Shapes & geometric reasoning 1	Expanding brackets, substitution into an expression,parallel lines Angles and triangles	2 + 3	

2	6	Shapes & geometric reasoning 1	, congruent shapes, classifications of quadrilaterals	3	Quiz this Week
	7	Shapes & geometric reasoning 1 + Fractions	Nets of solids, symmetry, comparing fractions	3 + 4	
	8	Fractions	Addition and subtraction of fractions and mixed numbers, multiplying and dividing an integer by a fraction	4	
	9	Decimals	Integer powers of 10, rounding, calculating with decimals	5	
	10	Decimals + Processing, interpreting and discussing data	Fraction and decimals, calculating statistics from data sets, calculating statistics from grouped data, making comparisons	5 + 6	
3	11		REVISION		
	12	EXAM and practise topics			
	13	Go through exam and Practise any topics based on the test results + start Length, mass and capacity		7	
	14	Length, mass and capacity - some revision. Equations : Area and volume, non-metric units, solving equations using flow diagrams 7 + 8			
	15	Equations Solving equations with the unknown on one side, using equations to solve problems Ch 8 + Christmas challenges			
	16	Equations Solving	Equation Revision	8	
4	17	Shapes and geometric reasoning 2 + Presenting, interpreting and discussing data	Constructions, triangles, circles. Scale drawings, frequency diagrams for grouped data	9	
	18	Presenting, interpreting and discussing data	frequency diagrams for grouped data Pie charts, line graphs	10	
	19	Presenting, interpreting and discussing data + Area, perimeter and volume	Stem-and-leaf diagrams, circles, area of a parallelogram	10 + 11	
	20	Area, perimeter and volume	Area of a triangle, area of trapezium, area of a circle	11	
	21	Area, perimeter and volume + Formulae	Compound shapes, deriving formulae, missing lessons due Adventure days	11+12	
5	22	Formulae + Position and movement	Substitution into formulae, further substitution into formulae	12	
	23	Term 2 Exam			
	24	Position and movement + Sequences	Transformations, Enlargements, midpoints, linear sequences of numbers	13 + 14	
	25	Sequences + Probability	Linear sequences from patterns of shapes, the n-th term of a linear sequence of numbers, calculating probablities, listing outcomes	14 + 15	
	26	Probability	Finish any of ch 15 plus revise concepts	15	
	27	Probability + Functions and graphs	Estimating propabilities, mapping diagrams, functions	16	

6	28	Functions and graphs	Finding the equation of a line from its graph, equations of the form y=mx+c, finding equivalent fractions	16 + 17	
	29	Fractions, decimals and percentages	Decimals and percentages, increasing and decreasing by a percentage, finding percentages	17	Quiz end of the week
	30	Planning and collecting data	Identifying and collecting data, frequency tables for continuous data, two-way tables	18	
	31	Ratio and proportion	More ratio, dividing in a given ratio, direct proportion-the unitary method	19	
	32	Time and rates of change	Travel graphs, other graphs, revision	20	
	33	Revision Week			
7	34	End of year test			
	35	Sets	Set notation, further set notation, using sets to solve problems	21	
	36	Matrices	Multiplying a row matrix by column matrix	22	
	37	Matrices	Multiplying matrices, 2x2matrices	22	
	38	Revision	Project to finish off the year		

Year 9 Plan

Block	Week	Outline Summary	Weekly Summary (one entry per row)	Book chapter	Comments
1	1	Integers, powers and roots	Introduction and revision and Square and cube roots, powers and indices, negative indices	1	
	2	Integers, powers and roots	Finish Square and cube roots, powers and indices, negative indices and Order of operations	1	
	3	Expressions	Finish Negative indices and order of ops Multiplying and dividing algebraic expressions, the index laws, factorising	1 +2	
	4	Expressions	Adding and subtracting algebraic fractions, substitution into expressions, expanding double brackets	2	Adventure Trip Wed-Fri
	5	Expressions	Adding and subtracting algebraic fractions, substitution into expressions, expanding double brackets	2	
2	6	Shapes & geometric reasoning 1	Constructing expressions, polygons, more polygons	2	Quiz (at the end)
	7	Fractions + Decimals	addition and subtraction &Multiplying fractions, dividing fractions, integer powers of 10	4 + 5	
	8	Decimals	Dividing by decimal, multiplying with decimals, rounding Finding average values for large data sets,	5	
	9	Processing, interpreting and discussing data	selecting the most appropriate average Converting metric units,	6 +7	
	10	Length, mass and capacity + Equations and inequalities	perial units, solving linear equations up to 8.4 ONLY	7 + 8	

3	11		REVISION OF TERM'S WORK		
	12	Revision and EXAM in double			
	13		Exam go through and practice topics based on exam results. Start 8a		
	14	Solving Linear equations 8a and b. 3D drawings and Views 9.1			
	15	Reflection symmetry 9.2 + Christmas Challenges			
	16	Shapes and geometric reasoning	Some quick revision of Sim Eq. and Construction of Lines and construction of polygons	9.3, 9.4	
4	17	Shapes and geometric reasoning 2 + Data	Maps and Bearings. Start Data- scatter and correlation, stem and leaf	9.5, 10.1, 10.2	
	18	Presenting, interpreting and discussing data	Comparing Distributions, Start Area	10.3, 11.1	
	19	Area, perimeter and volume	Volume, circles	11.2, 11.3	
	20	Area, perimeter and volume	Prisms and cylinders, revision of concepts from block	11,4	
	21	Formulae	Deriving formulae and substituting numbers into formulae	12	
5	22	Formulae	Changing the subject of a formula, formulae involving negative x terms, formulae involving fractions, Formulae involving square roots	12	
	23	Term 2 Test			
	24	Position and movement	tesselations, loci, describing transformations, enlargements	13	
	25	Sequences	Using the term-to-term rule, using the position-to-term rule, nth term of arithmetic sequence	14	
	26	Sequences	Finish anything from Ch 14, plus some revision of concepts	14	
	27	Probability + Functions and graphs	Mutually exclusive outcomes, sample space diagrams, experimental probability, gradients	15 + 16	
6	28	Functions and graphs	Straight-line graphs of the form ax+by=c, using graphs to solve simultaneous equations, the general equation of a straight line, finding the inverse of a function	16	
	29	Functions and graphs + Fractions, decimals and percentages	Functions arising from real-life problems, direct proportion, percentage change	16+17	
	30	Fractions, decimals and percentages + Planning and collecting data	More calculating with percentages, planning, data collection sheets	18 +19	
	31	Ratio and proportion + Time and rates of change	Comparing ratios, proportionality, average speed, compound measures	19 + 20	
	32	Pythagoras' theorem	Pythagoras' theorem, applications of Pythagoras' theorem, revision	21	
	33	Revision			
7	34	End of year test			
	35	Trigonometry	Go through exam + Naming the sides in a right-angled triangle, finding a side and an angle using the tangent ratio, review of past topics	22	
	36	Trigonometry	Finding a side or angle using sine, cosine or tangent	22	
	37	Matrices and transformations	Multiplying matrices, transformning a shape by a matrix, combined transformations	23	
	38	Revision	Project to finish off year		