

Term	INTENT	IMPLEMENTATION	IMPACT
	Substantive Knowledge This is the specific, factual content for the topic, which should be connected into a careful sequence of learning.	Disciplinary Knowledge (Skills) This is the action taken within a particular topic in order to gain substantive knowledge.	Assessment opportunities What assessments will be used to measure student progress? Evidence of how well students have learned the intended content.
Autumn Term 1A Year 7	<u>Intent</u>	<u>Chapter 1: Place Value</u> - Understand the place value of digits in integers - Write integers as words and numerals and use positive powers of ten in place value tables - To practice applying your knowledge of 1.1 Place value in integers - Understand the place value of digits in decimals - Write decimals as words and numerals and use negative powers of ten in place value tables - Multiply and divide by positive powers of 10 - Multiply and divide by negative powers of 10 - To practice applying your knowledge of 1.2 Place value in decimals - Place positive numbers on a number line - Compare positive numbers using $<$, $>$, and $=$ - Order positive numbers - To practice applying your knowledge of 1.3 Ordering and comparing numbers - Know and convert between units of measure - Compare measurements using $<$, $>$, and $=$ - To practice applying your knowledge of 1.4 Measures	- Year 7 baseline test - In class teacher assessment through Q&A - End of chapter online test - Chapter revision exercise via textbook - End of term review exercises via textbook - End of term formal assessments - Mastery homework with use of mymaths.co.uk and Kerboodle
	<u>Chapter 1 - Place Value</u> 1.1 Place value in integers 1.2 Place value in decimals 1.3 Ordering and comparing numbers 1.4 Measures		

Beths Grammar School KS3 Mathematics Curriculum Map – Year 7

	<u>Chapter 2 – Properties of Numbers</u> 2.1 Multiples 2.2 Powers and Roots 2.3 Factors and Prime Factorisation	<u>Chapter 2:</u> - Understand and list multiples of a number - Identify whether a number is a multiple of another number - To practice applying your knowledge of multiples - Understand and calculate square numbers - Understand and calculate cube numbers - Understand and calculate square roots - Understand and calculate cube roots - Understand and calculate powers of numbers - Recognise powers of 2, 3, 4, and 5 - To practice applying your knowledge of powers and roots - Understand and identify factors of a number - Identify whether a number is prime - Write a number as a product of its prime factors - Use prime factorisation to identify features of a number - Find the Highest Common Factor of two or more numbers - Find the Lowest Common Multiple of two or more numbers - To practice applying your knowledge of factors and prime factorisation	
Autumn Term 1B Year 7	<u>Intent</u>		
	<u>Chapter 3: Arithmetic</u> 3.1 Addition and subtraction with negative integers 3.2 Multiplication and division with negative integers 3.3 Addition and subtraction with decimals 3.4 Multiplication and division with decimals 3.5 Efficient calculations	<u>Chapter 3: Introduction to Algebra</u> - Order and compare positive and negative integers - Know that there are infinitely many integers - Add and subtract positive and negative integers - To practice applying your knowledge of addition and subtraction with negative integers - Multiply positive and negative integers - Divide positive and negative integers - To practice applying your knowledge of multiplication and division with negative integers - Add and subtract positive decimals - Order and compare positive and negative decimals	- In class teacher assessment through Q&A - End of chapter online test - Chapter revision exercise via textbook - End of term review exercises via textbook - End of term formal assessments - Mastery homework with use of mymaths.co.uk and Kerboodle

Beths Grammar School KS3 Mathematics Curriculum Map – Year 7

		• Know that given two numbers, you can always find another number between them • Add and subtract positive and negative decimals • To practice applying your knowledge of addition and subtraction with decimals • Multiply and divide efficiently using powers of ten • Multiply positive decimals • Divide positive decimals • Multiply negative decimals • Divide negative decimals • To practice applying your knowledge of multiplication and division with decimals • Know and use the commutative law • Know and use the associative law • Know and use the distributive law • Calculate using the priority of operations • Use a calculator fluently • To practice applying your knowledge of efficient calculations	
Spring Term 2A Year 7	<u>Intent</u>		
	<u>Chapter 4 - Expressions and Equations</u> • 4.1 Introduction to algebra • 4.2 Formulae and equations • 4.3 Simplifying expressions • 4.4 Using the distributive law	<u>Chapter 4: Expressions and Equations</u> • Understand how to use a letter to represent a number • Identify terms, products, and expressions • Understand and use algebraic notation • Understand how to use an algebraic statement or formula to represent a relationship • Substitute numbers into an algebraic expression • To practice applying your knowledge of 4.1 Introduction to algebra • Substitute numbers into function machines • Identify and substitute numbers into an algebraic formula • Use a simple formula written in words and write a formula from given information • Identify equations and inequalities	• In class teacher assessment through Q&A • End of chapter online test • Chapter revision exercise via textbook • End of term review exercises via textbook • End of term formal assessments • Mastery homework with use of mymaths.co.uk and Kerboodle

Beths Grammar School KS3 Mathematics Curriculum Map – Year 7

		• Write linear equations and determine whether a value satisfies an equation • To practice applying your knowledge of 4.2 Formulae and equations • Identify constants and coefficients • Identify like terms • Simplify expressions by collecting like terms • To practice applying your knowledge of 4.3 Simplifying expressions • Expand brackets by multiplying an expression by a term • Expand and simplify brackets • Identify algebraic factors and find the highest common factor of algebraic terms • Factorise expressions • To practice applying your knowledge of 4.4 Using the distributive law	
Spring Term 2B Year 7	<u>Intent</u>		
	<u>Chapter 5 - Coordinates</u> • 5.1 Plotting coordinates • 5.2 Coordinates, formulae, and graphs	<u>Chapter 5 – Coordinates</u> • Describe and plot coordinates • Solve problems involving points on coordinates grids • Solve problems involving shapes on coordinate grids • To practice applying your knowledge of 5.1 Plotting coordinates • Understand that on a horizontal or vertical line either x or y is constant • Understand that a graph shows all the points (within a range) that satisfy a relationship • Plot points and draw a graph of an algebraic relationship • To practice applying your knowledge of 5.2 Coordinates, formulae, and graphs	• In class teacher assessment through Q&A • End of chapter online test • Chapter revision exercise via textbook • End of term review exercises via textbook • End of term formal assessments Mastery homework with use of mymaths.co.uk and Kerboodle

Beths Grammar School KS3 Mathematics Curriculum Map – Year 7

	<u>Chapter 6 - Perimeter and Area</u> 6.1 Properties of quadrilaterals and triangles 6.2 Perimeter 6.3 Area	<u>Chapter 6 - Perimeter and Area</u> - Know and use the properties of different quadrilaterals - Know and use the properties of different triangles - To practice applying your knowledge of 6.1 Properties of triangles and quadrilaterals - Work out perimeters using properties of polygons - Solve problems involving perimeters of polygons - To practice applying your knowledge of 6.2 Perimeter - Work out areas of shapes on squared paper - Work out areas of composite shapes made of rectangles - Work out the area of triangles - Work out the area of different quadrilaterals - Solve problems involving areas of polygons - To practice applying your knowledge of 6.3 Area	
Summer Term 3A Year 7	<u>Intent</u>		
	<u>Chapter 7 - Fractions</u> 7.1 Working with fractions and decimals 7.2 Comparing and ordering fractions 7.3 Adding and subtracting fractions 7.4 Multiplying and dividing fractions	<u>Chapter 7 - Fractions</u> - Understand that 1 can be written in the form n/n - Convert between improper fractions and mixed numbers - Write a fraction as a decimal - Convert between fractions and decimals using a calculator - Write a decimal as a fraction - Convert between fractions and decimals using a calculator - Write a fraction in its simplest form - To practice applying your knowledge of 7.1 Working with fractions and decimals - Compare and order fractions using common denominators - Compare and order fractions by converting to decimals - Order positive and negative fractions and decimals - To practice applying your knowledge of 7.2 Comparing and ordering fractions - Add and subtract fractions with common denominators - Add and subtract fractions and mixed numbers with different denominators	- In class teacher assessment through Q&A - End of chapter online test - Chapter revision exercise via textbook - End of term review exercises via textbook - End of term formal assessments - Mastery homework with use of mymaths.co.uk and Kerboodle

	<u>Chapter 8 - Ratio and Proportion</u> • 8.1 Multiplicative relationships • 8.2 Representing multiplicative relationships • 8.3 Fractions in context • 8.4 Applying ratios	• To practice applying your knowledge of 7.3 Adding and subtracting fractions • Multiply fractions • Multiply mixed numbers • Rewrite a division as a multiplication by the reciprocal • Divide a fraction by a whole number • Divide a whole number by a fraction • Divide a fraction by a fraction • To practice applying your knowledge of 7.4 Multiplying and dividing fractions <u>Chapter 8 - Ratio and Proportion</u> • Show a multiplicative relationship using a ratio, fraction, or diagram • Understand that two numbers can be connected by addition/subtraction or multiplication/division • Find the multiplier between two numbers • Find different pairs of numbers that satisfy the same multiplicative relationship • To practice applying your knowledge of 8.1 Multiplicative relationships • Use a ratio table to represent a multiplicative relationship • Use a ratio table to simplify a ratio • Use a double number line to represent a multiplicative relationship and connect it to other representations • To practice applying your knowledge of 8.2 Representing multiplicative relationships • Find a fraction of a given amount • Find the original amount given a fraction of an amount and the fraction • Write one number as a fraction of another • To practice applying your knowledge of 8.3 Fractions in context • Share an amount into a ratio • Find one part of a whole, given another part and the ratio	
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Beths Grammar School KS3 Mathematics Curriculum Map – Year 7

		- Find the whole, given one part of a whole and the ratio - Find one part of a whole, given another part and the ratio - Use ratios to describe rates - To practice applying your knowledge of 8.4 Applying ratios	
Summer Term 3B Year 7	<u>Intent</u>		
	<u>Chapter 9 - Transformations</u> 9.1 Translations 9.2 Rotations 9.3 Reflections 9.4 Scale diagrams 9.5 Enlargements	<u>Chapter 9 – Transformations</u> - Recognise a translation and know which features of an object are affected by translation - Describe a translation - Translate an object - To practice applying your knowledge of 9.1 Translations - Recognise a rotation and know which features of an object are affected by rotation - Rotate an object - Describe a rotation - To practice applying your knowledge of 9.2 Rotations - Recognise a reflection and know which features of an object are affected by reflection - Draw a mirror line for a reflection - Reflect an object in a given line - To practice applying your knowledge of 9.3 Reflections - Know how distances on a scale diagram represent distances in real life - Interpret a scale diagram - Draw a scale diagram - To practice applying your knowledge of 9.4 Scale diagrams - Recognise an enlargement and know which features of an object are affected by enlargement - Enlarge an object - Describe an enlargement - To practice applying your knowledge of 9.5 Enlargements	- In class teacher assessment through Q&A - End of chapter online test - Chapter revision exercise via textbook - End of term review exercises via textbook - End of term formal assessments Mastery homework with use of mymaths.co.uk and Kerboodle