Kennington C.E. Academy

A member of Aquila, the Diocese of Canterbury Academies Trust

We are an Inclusive Community where Christian values empower us. With God's guidance we work with pride and passion to create life-long learners who fulfil their potential. If we work together, we will be the very best that we can be: achieving, celebrating and succeeding whilst having fun

Long Term Planning

Mathematics

Maths Long Term Plan

Year 3

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Place Value**			**Addition and subtraction**					**Multiplication and division**			
	Recap Represent numbers to 100 **Recap** Tens and ones using addition Hundreds Numbers to 1,000 **Activity** Numbers to 1,000 on a place value grid 100s, 10s and 1s (1) 100s, 10s and 1s (2) **Recap** Number line to 100 Number line to 1,000 Find 1, 10, 100 more or less Compare objects Compare numbers Order numbers Count in 50s			Add and subtract multiples of 100 **Recap** Add and subtracts 1s Add and subtract 3-digit and 1-digit numbers - not crossing 10 **Recap** Add a 2-digit and 1-digit number - crossing 10 Add 3-digit and 1-digit numbers - crossing 10 **Recap** Subtract a 1-digit number from 2-digits - crossing 10 Subtract a 1-digit number from a 3-digit number - crossing 10 Add and subtract 3-digit and 2-digit numbers - not crossing 100 Add 3-digit and 2-digit numbers - crossing 100 Subtract a 2-digit number from a 3-digit number - crossing 100 Add and subtract 100s Spot the pattern - making it explicit **Recap** Add two 2-digit numbers - crossing 10 - add ones & add tens **Recap** Subtract a 2-digit number from a 2-digit number - crossing 10 - subtract ones & subtract tens **New content** Mixed addition and subtraction problems					Multiplication - equal groups **Recap** Multiplication using the symbol **Recap** Using arrays **Recap** 2 times-table **Recap** 5 times-table **Recap** Make equal groups - sharing **Recap** Make equal groups - grouping **Recap** Divide by 2 **Recap** Divide by 5 **Recap** Divide by 10 Multiply by 3 Divide by 3 The 3 times-table Multiply by 4 Divide by 4 The 4 times-table Multiply by 8			

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		Add and subtract 2-digit and 3-digit numbers - not crossing 10 or 100 Add 2-digit and 3-digit numbers - crossing 10 or 100 Subtract a 2-digit number from a 3-digit numbers - crossing 10 or 100 Add two 3-digit numbers - not crossing 10 or 100 Add two 3-digit numbers - crossing 10 or 100 Subtract a 3-digit number from a 3-digit number - no exchange Subtract a 3-digit number from a 3-digit number - exchange Estimate answers to calculations Check answers		Divide by 8 The 8 times-table		
Spring	**Multiplication and division**	**Money**	**Statistics**	**Length and perimeter**	**Fractions**	**Consolidation**
	Recap Consolidate 2, 4 and 8 times-table (new worksheet) Comparing statements Related calculations **Activity** Multiply 2-digits by 1-digit - no exchange Multiply 2-digits by 1-digit (1) **Activity** Multiply 2-digits by 1-digit - exchange Multiply 2-digits by 1-digit (2)	**Recap** Count money (pence) **Recap** Count money (pounds) Pounds and pence Convert pounds and pence Add money Subtract money	**Recap** Make tally charts **Recap** Draw pictograms (2, 5 and 10) **Recap** Interpret pictograms (2, 5 and 10) Pictograms (use for extra consolidation if needed)	Measure length **Recap** Measure length (m) Equivalent lengths - m & cm Equivalent lengths - mm & cm **Recap** Compare lengths Compare lengths Add lengths Subtract lengths	**Recap** **Activity** Working with wholes and parts **Recap** Make equal parts **Recap** Recognise a half **Recap** Find a half **Recap** Recognise a quarter **Recap** Find a quarter **Recap** Recognise a third **Recap** Find a third	

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	Divide 2-digits by 1-digit (1) Divide 2-digits by 1-digit (2) **Activity** Divide 100 into 2, 4, 5 and 10 equal parts **Activity** Divide with remainders Divide 2-digits by 1-digit (3) Scaling How many ways?	Give change	**Activity** Draw bar charts Bar charts Tables	**Activity** What is perimeter? Measure perimeter Calculate perimeter **Activity** Calculate perimeter activity	**Recap** Unit fractions **Recap** Non-unit fractions Unit and non-unit fractions (use for consolidation if needed) **Recap** Equivalence of a half and 2 quarters **Recap** Count in fractions	
Summer	**Fractions** Making the whole Tenths Count in tenths Tenths as decimals Fractions on a number line Fractions of a set of objects (1) Fractions of a set of objects (2) Fractions of a set of objects (3) Equivalent fractions (1) Equivalent fractions (2)	**Time** **Recap** O'clock and half past **Recap** Quarter past and quarter to Months and years Hours in a day Telling the time to 5 minutes Telling the time to the minute Using a.m. and p.m. **Activity** 24-hour clock 24-hour clock Finding the duration	**Properties of shape** Turns and angles Right angles in shapes Compare angles Draw accurately Horizontal and vertical Parallel and perpendicular Recognise and describe 2-D shapes Recognise and describe 3-D shapes	**Mass and Capacity** **Activity** Measure mass **Recap** Compare mass Measure mass (1) Measure mass (2) Compare mass Add and subtract mass **Activity** Measure capacity **Recap** Compare volume Measure capacity (1) Measure capacity (2)	**Consolidation**

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	Equivalent fractions (3) Compare fractions Order fractions Add fractions Subtract fractions	Comparing durations Start and end times Measuring time in seconds Problem solving with time	Make 3-D shapes	Compare capacity Add and subtract capacity **Activity** Temperature activity **Recap** Temperature	

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Year 4

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Place value**				**Addition and subtraction**			**Length and perimeter**		**Multiplication and division**		
	Recap Numbers to 1,000 **Recap** 100s, 10s and 1s (1) **Recap** Number line to 1,000 Round to the nearest 10 Round to the nearest 100 Count in 1,000s **Activity** Represent numbers to 10,000 1,000s, 100s, 10s and 1s Partitioning The number line to 10,000 **Recap** Find 1, 10, 100 more or less 1,000 more or less Compare 4-digit numbers Order numbers Round to the nearest 1,000 Count in 25s **Activity** Introducing negative numbers				Add and subtract 1s, 10s, 100s and 1,000s **Recap** Add two 3-digit numbers - not crossing 10 or 100 Add two 4-digit numbers - no exchange **Recap** Add two 3-digit numbers - crossing 10 or 100 Add two 4-digit numbers - one exchange Add two 4-digit numbers - more than one exchange **Recap** Subtract a 3-digit number from a 3-digit number - no exchange Subtract two 4-digit numbers - no exchange **Recap** Subtract a 3-digit number from a 3-digit number - exchange Subtract two 4-digit numbers - one exchange Subtract two 4-digit numbers - more than one exchange			**Recap** Equivalent lengths - m and cm **Recap** Equivalent lengths - mm and cm Kilometres **Recap** Add lengths **Recap** Subtract lengths **Recap** Measure perimeter Perimeter on a grid Perimeter of a rectangle Perimeter of rectilinear shapes			Multiply by 10 Multiply by 100 Divide by 10 Divide by 100 Multiply by 1 and 0 Divide by 1 and itself **Recap** Multiply and divide by 3 **Recap** The 3 times-table Multiply and divide by 6 6 times-table and division facts Multiply and divide by 9 9 times-table and division facts Multiply and divide by 7 7 times-table and division facts		

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	Negative numbers Roman numerals		Efficient subtraction Estimate answers Checking strategies		
Spring	**Multiplication and division**	**Area**	**Fractions**	**Decimals**	**Consolidation**
	11 and 12 times-table Multiply 3 numbers Factor pairs Efficient multiplication Written methods **Recap** Multiply 2-digits by 1-digit Multiply 2-digits by 1-digit Multiply 3-digits by 1-digit **Recap** Divide 2-digits by 1-digit (2) Divide 2-digits by 1-digit (1) **Recap** Divide 2-digits by 1-digit (3) Divide 2-digits by 1-digit (2) Divide 3-digits by 1-digit Correspondence problems	What is area? Counting squares Making shapes Comparing area	**Recap** Unit and non-unit fractions What is a fraction? **Recap** Tenths **Recap** Count in tenths **Recap** Equivalent fractions (1) **Recap** Equivalent fractions (2) Equivalent fractions (1) Equivalent fractions (2) Fractions greater than 1 Count in fractions **Recap** Add fractions Add 2 or more fractions **Recap** Subtract fractions Subtract 2 fractions Subtract from whole amounts	**Activity** Tenths and hundredths Recognise tenths and hundredths Tenths as decimals Tenths on a place value grid Tenths on a number line Divide 1-digit by 10 Divide 2-digits by 10 Hundredths Hundredths as decimals Hundredths on a place value grid Divide 1 or 2-digits by 100	

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			Recap Fractions of a set of objects (1) **Recap** Fractions of a set of objects (2) Calculate fractions of a quantity Problem solving - calculate quantities			

	Decimals	Money	Time	Statistics	Properties of shape	Position and direction	Consolidation
Summer	**Recap** Bonds to 10 and 100 (Worksheet 1) **Recap** Bonds to 10 and 100 (Worksheet 2) Make a whole **Activity** Write decimals Write decimals Compare decimals Order decimals **Activity** Round decimals Round decimals Halves and quarters	Pounds and pence Ordering money Estimating money **Recap** Convert pounds and pence **Recap** Add money **Recap** Subtract money **Recap** Give change **Activity** Working with money Four operations	**Recap** Telling the time to 5 minutes **Recap** Telling the time to the minute **Recap** Using a.m. and p.m. **Recap** 24-hour clock Hours, minutes and seconds Years, months, weeks and days **Activity** Analogue to digital (first part of worksheet) Analogue to digital - 12 hour (second part of worksheet) Analogue to digital - 24 hour	Interpret charts Comparison, sum and difference Introducing line graphs Line graphs	**Recap** Turns and angles **Recap** Right angles in shapes **Recap** Compare angles Identify angles Compare and order angles **Recap** Recognise and describe 2-D shapes **Activity** Triangles Triangles **Activity** Quadrilaterals Quadrilaterals **Activity** Symmetry **Recap** Horizontal and Vertical	Describe position Draw on a grid Move on a grid Describe movement on a grid	

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					Lines of symmetry Complete a symmetric figure		

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Year 5

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	**Place value**			**Addition and subtraction**		**Statistics**		**Multiplication and division**			**Perimeter and area**	
	Recap 1,000s, 100s, 10s and 1s Numbers to 10,000 **Recap** Rounding to the nearest 10 **Recap** Rounding to the nearest 100 Rounding to 10, 100 and 1,000 Numbers to 100,000 Compare and order numbers to 100,000 Round numbers within 100,000 Numbers to a million Counting in 10s, 100s, 1,000s, 10,000s and 100,000s Compare and order numbers to one million Round numbers to one million Negative numbers Roman numerals			**Recap** Add two 4-digit numbers - one exchange **Recap** Add two 4-digit numbers - more than one exchange Add whole numbers with more than 4 digits (column method) **Recap** Subtract two 4-digit numbers - one exchange **Recap** Subtract two 4-digit numbers - more than one exchange Subtract whole numbers with more than 4 digits (column method) Round to estimate and approximate Inverse operations (addition and subtraction)		**Recap** Interpret charts **Recap** Comparison, sum and difference **Recap** Introduce line graphs Read and interpret line graphs Draw line graphs Use line graphs to solve problems Read and interpret tables Two-way tables Timetables		Multiples Factors Common factors **Activity** Prime numbers Prime numbers Square numbers Cube numbers **Recap** Multiply by 10 **Recap** Multiply by 100 Multiply by 10, 100 and 1,000 **Recap** Divide by 10 **Recap** Divide by 100 Divide by 10, 100 and 1,000 Multiples of 10, 100 and 1,000			Measure perimeter **Recap** Perimeter on a grid **Recap** Perimeter of rectangles **Recap** Perimeter of rectilinear shapes Calculate perimeter **Recap** Counting squares Area of rectangles Area of compound shapes Area of irregular shapes	

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		Multi-step addition and subtraction problems			

	Multiplication and division	Fractions	Decimals and percentage	Consolidation
Spring	**Recap** Multiply 2-digits by 1-digit **Recap** Multiply 3-digits by 1-digit Multiply 4-digits by 1-digit Multiply 2-digits (area model) - first part of worksheet Multiply 2-digits (area model) - second part of worksheet Multiply 2-digits by 2-digits Multiply 3-digits by 2-digits **New content** Multiply 4-digits by 2-digits (basic practice) Multiply 4-digits by 2-digits **Recap** Divide 2-digits by 1-digit (1) **Recap** Divide 2-digits by 1-digit (2) **Recap** Divide 3-digits by 1-digit Divide 4-digits by 1-digit Divide with remainders	**Recap** What is a fraction? **Recap** Equivalent fractions Equivalent fractions **Recap** Fractions greater than 1 Improper fractions to mixed numbers Mixed numbers to improper fractions Number sequences Compare and order fractions less than 1 (first part of worksheet) Compare and order fractions less than 1 (second part of worksheet) Compare and order fractions greater than 1 (first part of worksheet) Compare and order fractions greater than 1 (second part of worksheet) Add and subtract fractions **Activity** Add fractions within 1 Add fractions within 1 Add 3 or more fractions	Decimals up to 2 d.p. Decimals as fractions (1) Decimals as fractions (2) Understand thousandths Thousandths as decimals Rounding decimals Order and compare decimals Understand percentages Percentages as fractions and decimals Equivalent F.D.P	

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		Add fractions **Activity** Add mixed numbers Add mixed numbers Subtract fractions Subtract mixed numbers Subtraction - breaking the whole Subtract 2 mixed numbers Multiply unit fractions by an integer Multiply non-unit fractions by an integer Multiply mixed numbers by integers **Recap** Calculate fractions of a quantity Fraction of an amount Using fractions as operators **New content** Fraction problem solving				
Summer	**Consolidation**	**Decimals**	**Properties of shape**	**Position and direction**	**Converting units**	**Volume**
		Adding decimals within 1 Subtracting decimals within 1	**Recap** Identify angles **Recap** Compare and order angles	**Recap** Describe position **Recap** Draw on a grid	**Recap** Kilometres Kilograms and kilometres	What is volume?

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		Complements to 1 Adding decimals - crossing the whole Adding decimals with the same number of decimal places Subtracting decimals with the same number of decimal places **New content** Adding and subtracting decimals with the same number of decimal places problem solving Adding decimals with a different number of decimal places Subtracting decimals with a different number of decimal places **New content** Adding and subtracting decimals with a different number of decimal places problem solving Adding and subtracting wholes and decimals Decimal sequences Multiplying decimals by 10, 100 and 1,000 Dividing decimals by 10, 100 and 1,000	Measuring angles in degrees Measuring with a protractor (1) Measuring with a protractor (2) **Activity** Drawing lines and angles accurately Drawing lines and angles accurately Calculating angles on a straight line Calculating angles around a point **Recap** Triangles **Recap** Quadrilaterals Calculating lengths and angles in shapes Regular and irregular polygons Reasoning about 3-D shapes	Position in the first quadrant Translation Translation with coordinates **Recap** Line of symmetry **Recap** Complete a symmetric figure Reflection Reflection with coordinates	Millimetres and mililitres **Activity** Metric units Metric units **Activity** Imperial units Imperial units Converting units of time Timetables	Compare volume Estimate volume Estimate capacity

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Year 6

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
	Place value		**Addition, subtraction, multiplication and division**					**Fractions**				**Consolidation**
Autumn	**Recap** Numbers to 10,000 **Recap** Numbers to 100,000 **Recap** Numbers to a million Numbers to 10 million Compare and order any numbers **Recap** Round numbers to 10, 100 and 1,000 Round any number **Activity** Negative numbers Negative numbers		**Recap** Add whole numbers with more than 4 digits (column method) **Recap** Subtract whole numbers with more than 4 digits (column method) **Recap** Inverse operations (addition and subtraction) **Recap** Multi-step addition and subtraction problems Add and subtract integers **Recap** Multiply 4-digits by 1-digit **Recap** Multiply 2-digits (area model) **Recap** Multiply 2-digits by 2-digits **Recap** Multiply 3-digits by 2-digits Multiply up to a 4-digit number by a 2-digit number **Recap** Divide 4-digits by 1-digit **Recap** Divide with remainders Short division Division using factors Long division (1) Long division (2)					**Recap** Equivalent fractions Simplify fractions **Recap** Improper fractions to mixed numbers **Recap** Mixed numbers to improper fractions Fractions on a number line Compare and order (denominator) Compare and order (numerator) Add and subtract fractions (1) **Activity** Add and subtract fractions activity (denominators are not multiples) Add and subtract fractions (2) **Recap** Add mixed numbers Add fractions **Recap** Subtract mixed numbers Subtract fractions Mixed addition and subtraction Multiply fractions by integers				

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		Long division (3) Long division (4) **Recap** Factors Common factors Common multiples Primes to 100 Squares and cubes Order of operations Mental calculations and estimation Reason from known facts			Multiply fractions by fractions Divide fractions by integers (1) Divide fractions by integers (2) Four rules with fractions Fraction of an amount Fraction of an amount - find the whole		
Spring	**Decimals**	**Percentages**	**Algebra**	**Converting units**	**Perimeter, area and volume**	**Ratio**	**Consolidation**
	Recap Decimals up to 2 d.p. **Recap** Understand thousandths Three decimal places Multiply by 10, 100 and 1,000 Divide by 10, 100 and 1,000	**Recap** Understand percentages Fractions to percentages Equivalent FDP Order FDP Percentage of an amount (1)	Find a rule - one step Find a rule - two step Forming expressions Substitution Formulae Forming equations Solve simple one-step equations	Metric measures Convert metric measures Calculate with metric measures Miles and kilometres	Shapes - same area Area and perimeter Area of a triangle (1) Area of a triangle (2) Area of a triangle (3) Area of a parallelogram	Use ratio language Ratio and fractions Introducing the ratio symbol **Activity** Calculating ratio Calculating ratio Using scale factors	

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	Multiply decimals by integers Divide decimals by integers Division to solve problems Decimals as fractions Fractions to decimals (1) Fractions to decimals (2)	Percentage of an amount (2) Percentages - missing values	Solve two-step equations Find pairs of values (1) Find pairs of values (2)	Imperial measures	**Recap** What is volume? Volume - counting cubes Volume of a cuboid	Calculating scale factors Ratio and proportion problems **New content** Ratio and proportion problems (2)	
Summer	**Statistics**	**Properties of shape**	**Consolidation and themed projects**				
	Read and interpret line graphs Draw line graphs Use line graphs to solve problems Circles Read and interpret pie charts Pie charts with percentages Draw pie charts **Activity** The mean	Measure with a protractor **Recap** Draw lines and angles accurately Introduce angles **Recap** Angles on a straight line **Recap** Angles around a point Calculate angles Vertically opposite angles Angles in a triangle Angles in a triangle - special cases					

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	The mean	Angles in a triangle - missing angles Angles in special quadrilaterals Angles in regular polygons Draw shapes accurately Draw nets of 3-D shapes	