BISHOP'S TACHBROOK CE PRIMARY SCHOOL

Year 6 Medium Term Planning Autumn (not Curriculum 2014)

Maths topic covered	TS	Objectives covered
Ordering numbers and place value	TS1	• Revise understanding of what each digit represents in a numbers with up to two decimal places • Revise using decimal notation for tenths and hundredths • Begin to recognise and use decimals with three places • Order numbers with up to two decimal places (including different numbers of places) and place them on a number line • Round a number with two decimal places to the nearest tenth or to the nearest whole number
Ordering numbers and place value Measures: area and perimeter	TS1 TS_M1	• Give a number between two numbers with one decimal place, e.g. 2.5 and 2.6, and use correctly the symbols for >, < and = • Count on and back in steps of 0.1, 0.25 • Measure and calculate the perimeter of rectilinear shapes • Measure and calculate the area of rectilinear shapes • Estimate the area of an irregular shape by counting squares • Calculate the perimeter of simple compound shapes that can be split into rectangles • Calculate the area of simple compound shapes that can be split into rectangles
Shape: 2-D shapes and 3-D solids, angles	TS_S1	• Describe, identify and visualise parallel and perpendicular edges or faces • Use the properties of 2D and 3D shapes to classify 2-D shapes and 3-D solids • Visualise 3-D shapes from 2-D drawings and identify different nets for a closed cube • Use Venn and Carroll diagrams to show information about shapes • Sort and classify quadrilaterals using criteria such as parallel sides, equal sides, equal angles and lines of symmetry • Make and draw shapes with increasing accuracy • Estimate angles and use a protractor to measure these • Draw angles, using a protractor, on their own and in shapes • Calculate angles on a straight line, in a triangle or around a point
Mental multiplication and division	TS2	• Revise multiplying two-digit numbers by single digit numbers by partitioning, e.g. 47 × 6 = (40 × 6) + (7 × 6) • Use brackets • Revise dividing two-digit numbers by single-

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		digit numbers, including leaving a remainder • Decide whether to group or share (including halving and quartering) to solve division • Give an answer to a division as a mixed number when the divisor is 2, 4, 5, 10 or 100, e.g. 39 ÷ 4 = $9\frac{3}{4}$ • Double quickly any two-digit number e.g. 78, 7.8. 0.78, and derive the corresponding halves • Double multiples of 10 to 1000, e.g. double 360, and derive the corresponding halves
Written methods for multiplication and division	TS3	• Multiply pairs of multiples of 10, e.g. 30 x 40, or of 10 and 100, e.g. 600 x 40 • Approximate first before calculating • Revise using the grid method to multiply three-digit numbers by single digit numbers and to multiply two-digit numbers by two-digit numbers • Use the grid method to multiply four-digit numbers by single-digit numbers • Revise using chunking on the ENL to divide three-digit numbers by single digit numbers, including those leaving a remainder • Decide whether to round up or down after division
Fractions, percentages, ratio and proportion	TS4	• Revise finding fractions of shapes • Change an improper fraction to a mixed number, e.g. 33/8 to 4 1/8 • Recognise equivalence between fractions e.g. between 1/16s, 1/8s, 1/4s and 1/2s; and between 1/100s, 1/10s and 1/2s • Reduce a fraction to its simplest form • Relate finding fractions to division and use them as operators to find fractions including several tenths and hundredths of quantities • Understand percentage as the number of parts in every 100, and express halves, quarters, tenths and hundredths as percentages • Find simple percentages of whole number quantities e.g. 10%, 20%, 40% and 80 % by doubling, and 25% by finding a quarter • Revise using ratio and proportion to describe the relationship between quantities, e.g. 3 red beads for every 2 blue beads, 3 out of every 5 beads are red • Solve simple problems involving direct proportion by scaling quantities up or down
Reasoning and explaining	TS5	• Explain methods and reasoning orally • Make general statements about odd and even numbers including their products • Recognise and extend number sequences • Revise finding factors of two-digit numbers

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Handling data: frequency tables, bar charts, pie charts and line graphs	TS_D1	• Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask • Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs • Interpret pie charts
Handling data: frequency tables, bar charts, pie charts and line graphs Mental and written addition and subtraction	TS_D1 TS6	• Solve problems by collecting, selecting, processing, presenting and interpreting data, using ICT where appropriate; draw conclusions and identify further questions to ask • Construct and interpret frequency tables, bar charts with grouped discrete data, and line graphs • Interpret pie charts • Add or subtract mentally a near multiple of 10, 100 or 1000, or a near multiple of £1 and adjust, e.g. 3127 + 4998, 5678 -1996. £5.00 ± £2.99 • Use strategies for adding or subtracting two-digit whole numbers, and place value to add or subtract three-digit multiples of 10 and pairs of decimals
Mental and written addition and subtraction	TS6	• Add or subtract mentally a near multiple of 10, 100 or 1000, or a near multiple of £1 and adjust, e.g. 3127 + 4998, 5678 -1996. £5.00 ± £2.99 • Use strategies for adding or subtracting two-digit whole numbers, and place value to add or subtract three-digit multiples of 10 and pairs of decimals • Approximate first before calculating • Revise using vertical addition to add pairs of four-digit numbers • Revise adding two numbers with the same number of decimal places using vertical addition, including amounts of money, e.g. £35.75 + £26.78 • Revise subtracting four digit numbers by counting up, e.g. 5431 – 2789 • Subtract four digit numbers using decomposition • Subtract numbers with the same number of decimal places by counting up, including amounts of money, e.g. 25.3 – 15.7, 5.24 – 2.76, £50.00 - £26.78 • Choose an efficient method to subtract by choosing for a variety of calculations such as 5412 – 3006, 1524 – 320 or 1524 – 978

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Mental and written addition and subtraction	**TS6**	• Choose an efficient method to subtract by choosing for a variety of calculations such as 5412 – 3006, 1524 – 320 or 1524 – 978 • Choose mental, written or calculator methods to work out addition and subtraction calculations
Using a calculator	**TS7**	• Approximate first before calculating • Select the correct sequence to carry out calculations needing more than one step • Recognise a negative answer • Know how to clear a calculation and how to clear the last entry • Use the decimal point • Enter and interpret money calculations • Check with a different order (e.g. when adding a long list of numbers) or by using the inverse • Choose mental, written or calculator methods to work out addition and subtraction calculations
Problem solving	**TS8**	• Use all four operations to solve single- and multi-step word problems • Use brackets • Decide whether to round up or down after division • Solve mathematical puzzles • Use ordered lists/systematic working to find all possibilities • Solve logic problems
Assess and review	**TS9**	• Understand what each digit represents in a numbers with up to two decimal places • Begin to recognise and use numbers with three decimal places • Order numbers with up to three decimal places (including different numbers of places) and place them on a number line • Recognise equivalence between fractions e.g. between 1/16s, 1/8s, 1/4s, and 1/2s; 1/100s, 1/10s, and 1/2s • Understand percentage as the number of parts in every 100 and express halves, quarters, tenths and hundredths as percentages • Compare fractions and percentages • Find simple percentages of shapes and of whole number quantities e.g. 10%, 20%, 40% and 80 % by doubling, and 25% by finding a quarter • Multiply two-digit numbers by single digit numbers by partitioning, e.g. 47 × 6 = (40 × 6) + (7 × 6) • Divide two-digit numbers by single-digit numbers, including those leaving a remainder

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Maths topic covered	TS	Objectives covered
		- Give an answer to a division as a mixed number, e.g. 39 ÷ 4 = 9¾ - Approximate first before calculating - Revise using the grid method to multiply three-digit numbers by single-digit numbers and to multiply two-digit numbers by two-digit numbers - Use the grid method to multiply four-digit numbers by single-digit numbers - Using chunking on the ENL to divide three-digit numbers by single digit numbers, including those leaving a remainder - Revise adding two numbers with the same number of decimal places using vertical addition, including amounts of money, e.g. £35.75 + £26.78 - Revise subtracting four digit numbers by counting up, e.g. 5431 – 2789 - Choose mental, written or calculator methods to work out addition and subtraction calculations