Maths Long Term Plan: Year 4

Autumn Term

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12 - 14
	Place Value				**Addition & Subtraction**			**Measurement *(area)***	**Multiplication & Division A**			
White Rose Small Steps	**Step 1** Represent numbers to 1,000 **Step 2** Partition numbers to 1,000 **Step 3** Number line to 1,000 Numbers up to 1,000 (PS) **Step 4** Thousands **Step 5** Represent numbers to 10,000 **Step 6** Partition numbers to 10,000 **Step 7** Flexible partitioning of numbers to 10,000 Numbers up to 10,000 (PS) **Step 8** Find 1, 10, 100, 1,000 more or less 1, 10, 100, 1,000 more or less (PS) **Step 9** Number line to 10,000 **Step 10** Estimate on a number line to 10,000 Number lines (PS) **Step 11** Compare numbers to 10,000 **Step 12** Order numbers to 10,000 Compare and order numbers (PS) **Step 13** Roman numerals Roman numerals (PS) **Step 14** Round to the nearest 10 **Step 15** Round to the nearest 100 **Step 16** Round to the nearest 1,000 **Step 17** Round to the nearest 10, 100 or 1,000 Rounding (PS)				**Step 1** Add and subtract 1s, 10s, 100s and 1,000s Add and subtract 1s, 10s, 100s and 1,000s (PS) **Step 2** Add up to two 4-digit numbers – no exchange **Step 3** Add two 4-digit numbers – one exchange **Step 4** Add two 4-digit numbers – more than one exchange Adding two 4-digit numbers (PS) **Step 5** Subtract two 4-digit numbers – no exchange **Step 6** Subtract two 4-digit numbers – one exchange **Step 7** Subtract two 4-digit numbers – more than one exchange Subtracting two 4-digit numbers **Step 8** Efficient subtraction **Step 9** Estimate answers **Step 10** Checking strategies Estimating and checking (PS)				**Step 1** What is area? **Step 2** Count squares **Step 3** Make shapes **Step 4** Compare areas Area (PS)	**Step 1** Multiples of 3 **Step 2** Multiply and divide by 6 **Step 3** 6 times-table and division facts **Step 4** Multiply and divide by 9 **Step 5** 9 times-table and division facts **Step 6** The 3, 6 and 9 times-tables 3, 6 and 9 times-tables (PS) **Step 7** Multiply and divide by 7 **Step 8** 7 times-table and division facts **Step 9** 11 times-table and division facts **Step 10** 12 times-table and division facts 7, 11 and 12 times-tables (PS) **Step 11** Multiply by 1 and 0 **Step 12** Divide a number by 1 and itself **Step 13** Multiply three numbers Multiplying and dividing by 1 and 0 and multiplying three numbers (PS)			**Consolidation and assessments**

Maths Long Term Plan: Year 4

National Curriculum Objectives	Read and write numbers up to 1,000 in numerals and words **(Y3)** Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones) **(Y3)** Identify, represent and estimate numbers using different representations Count in multiples of 6, 7, 9, 25 and 1,000 Recognise the place value of each digit in a 4-digit number (thousands, hundreds, tens and ones) Find 1,000 more or less than a given number Order and compare numbers beyond 1,000 Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value Round any number to the nearest 10, 100 or 1,000	Add and subtract numbers with up to four digits using the formal written methods of columnar addition and subtraction where appropriate Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why Estimate and use inverse operations to check answers to a calculation	Find the area of rectilinear shapes by counting squares	Recall multiplication and division facts for multiplication tables up to 12 × 12 Recognise and use factor pairs and commutativity in mental calculations Count in multiples of 6, 7, 9, 25 and 1,000 Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers	

Maths Long Term Plan: Year 4

Problem Solving Skills	Engage with mathematical activities and problems, making links and moving between different representations (concrete, pictorial, abstract). Independently choose to scaffold thinking using concrete, pictorial or abstract representations, if required. Independently choose to represent thinking using concrete, pictorial or abstract representations, as appropriate. Make suggestions of ways to solve a range of problems. Develop and apply a systematic approach. Find and predict possibilities that match the context using patterns spotted to support. Independently check and improve work (e.g. look for other possibilities, repeats, missing answers, errors and ways to improve). Pattern spot and with support, express generalisations/rules in words. Make and investigate conjectures and provide examples and counter-examples. When they have solved a problem, pose a similar problem for a peer.
Reasoning Skills	Provide a clear, correct, logical justification and with support, express generalisation/rules formed in words. Reflect on others' justifications and use this to improve their work. Edit and improve their own and a peer's justification. Investigate 'what if?' questions. Create 'what if?' questions.

Maths Long Term Plan: Year 4

Spring Term

	Week 1 - Week 3	Week 4 - Week 5	Week 6 - Week 8	Week 9 - Week 11	Week 12
	Multiplication & Division B	**Measurement *(length & perimeter)***	**Fractions**	**Decimals**	
White Rose Small Steps	**Step 1** Factor pairs **Step 2** Use factor pairs Factor pairs (PS) **Step 3** Multiply by 10 **Step 4** Multiply by 100 Multiplying by 10 and 100 (PS) **Step 5** Divide by 10 **Step 6** Divide by 100 Dividing by 10 and 100 (PS) **Step 7** Related facts – multiplication and division **Step 8** Informal written methods for multiplication **Step 9** Multiply a 2-digit number by a 1-digit number **Step 10** Multiply a 3-digit number by a 1-digit number Multiplying 2- and 3-digit numbers (PS) **Step 11** Divide a 2-digit number by a 1-digit number (1) **Step 12** Divide a 2-digit number by a 1-digit number (2) **Step 13** Divide a 3-digit number by a 1-digit number Dividing 2- and 3-digit numbers (PS) **Step 14** Correspondence problems (PS) **Step 15** Efficient multiplication	**Step 1** Measure in kilometres and metres **Step 2** Equivalent lengths (kilometres and metres) Length (PS) **Step 3** Perimeter on a grid **Step 4** Perimeter of a rectangle **Step 5** Perimeter of rectilinear shapes Perimeter (PS) **Step 6** Find missing lengths in rectilinear shapes **Step 7** Calculate perimeter of rectilinear shapes Calculating perimeter, including missing lengths (PS) **Step 8** Perimeter of regular polygons **Step 9** Perimeter of polygons Perimeter of regular and irregular polygons (PS)	**Step 1** Understand the whole **Step 2** Count beyond 1 **Step 3** Partition a mixed number **Step 4** Number lines with mixed numbers **Step 5** Compare and order mixed numbers Mixed numbers (PS) **Step 6** Understand improper fractions **Step 7** Convert mixed numbers to improper fractions **Step 8** Convert improper fractions to mixed numbers Improper fractions and mixed numbers (PS) **Step 9** Equivalent fractions on a number line **Step 10** Equivalent fraction families Equivalent fractions (PS) **Step 11** Add two or more fractions **Step 12** Add fractions and mixed numbers Adding fractions and mixed numbers (PS) **Step 13** Subtract two fractions **Step 14** Subtract from whole amounts **Step 15** Subtract from mixed numbers Subtracting and fractions and mixed numbers (PS)	**Step 1** Tenths as fractions **Step 2** Tenths as decimals **Step 3** Tenths on a place value chart **Step 4** Tenths on a number line Tenths (PS) **Step 5** Divide a 1-digit number by 10 **Step 6** Divide a 2-digit number by 10 Dividing 1- and 2-digit numbers by 10 (PS) **Step 7** Hundredths as fractions **Step 8** Hundredths as decimals **Step 9** Hundredths on a place value chart Hundredths (PS) **Step 10** Divide a 1- or 2-digit number by 100 Dividing 1- and 2-digit numbers by 100 (PS)	**Consolidation and assessments**

Maths Long Term Plan: Year 4

National Curriculum Objectives	Recognise and use factor pairs and commutativity in mental calculations Recall multiplication and division facts for multiplication tables up to 12 × 12 Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 (Y5) Solve problems involving multiplying and adding, including using the distributive law to multiply 2-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together 3 numbers	Convert between different units of measure [for example, kilometre to metre; hour to minute] Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres	Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators (Y3) Recognise and show, using diagrams, families of common equivalent fractions Add and subtract fractions with the same denominator	Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing 1-digit numbers or quantities by 10 (Y3) Recognise and write decimal equivalents of any number of tenths or hundredths Compare numbers with the same number of decimal places up to 2 decimal places Find the effect of dividing a 1- or 2-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths Recognise and show, using diagrams, families of common equivalent fractions	

Maths Long Term Plan: Year 4

		EXS	GDS
Problem Solving Skills	Engage with mathematical activities and problems, making links and moving between different representations (concrete, pictorial, abstract). Independently choose to scaffold thinking using concrete, pictorial or abstract representations, if required. Independently choose to represent thinking using concrete, pictorial or abstract representations, as appropriate. Make suggestions of ways to solve a range of problems. Develop and apply a systematic approach. Find and predict possibilities that match the context using patterns spotted to support. Independently check and improve work (e.g. look for other possibilities, repeats, missing answers, errors and ways to improve). Pattern spot and with support, express generalisations/rules in words. Make and investigate conjectures and provide examples and counter-examples. When they have solved a problem, pose a similar problem for a peer.	For all mathematical concepts, ideas and techniques: Represent it in a variety of ways *(e.g. using concrete materials, pictures and symbols – the CPA approach).* Make up his or her own examples *(and non-examples)* of it. See connections between it and other facts or ideas. Recognise it in new situations and contexts. Make use of it in various ways, including in new situations.	Solve problems of greater complexity *(i.e. where the approach is not immediately obvious),* demonstrating creativity and imagination. Independently explore and investigate mathematical contexts and structures.
Reasoning Skills	Provide a clear, correct, logical justification and with support, express generalisation/rules formed in words. Reflect on others' justifications and use this to improve their work. Edit and improve their own and a peer's justification. Investigate 'what if?' questions. Create 'what if?' questions.	Describe it in his or her own words. Explain it to someone else.	Communicate results clearly and systematically explain and generalise the mathematics.