Year 1 Autumn Term- Medium Term Planning

	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 *(within 10)*					**Addition & Subtraction *(within 10)***					**Geometry *(shape)***	**Consolidation**
National Curriculum Objectives	Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least Compare numbers using and = signs Read and write numbers from 1 to 20 in numerals and words					Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer) Read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs Represent and use number bonds and related subtraction facts within 20 Add and subtract 1-digit and 2-digit numbers to 20, including zero					Recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles]; 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	**Y1 Autumn Term Assessment or RTP Assessments**
White Rose Small Steps	**Step 1** Sort objects **Step 2** Count objects **Step 3** Count objects from a larger group **Step 4** Represent objects **Step 5** Recognise numbers as words **Step 6** Count on from any number **Step 7** 1 more **Step 8** Count backwards within 10 **Step 9** 1 less **Step 10** Compare groups by matching **Step 11** Fewer, more, same **Step 12** Less than, greater than, equal to **Step 13** Compare numbers **Step 14** Order objects and numbers **Step 15** The number line **Y1 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y1 GAPS**					**Step 1** Introduce parts and wholes **Step 2** Part-whole model **Step 3** Write number sentences **Step 4** Fact families – addition facts **Step 5** Number bonds within 10 **Step 6** Systematic number bonds within 10 **Step 7** Number bonds to 10 **Step 8** Addition – add together **Step 9** Addition – add more **Step 10** Addition problems **Step 11** Find a part **Step 12** Subtraction – find a part **Step 13** Fact families – the eight facts **Step 14** Subtraction – take away/cross out (How many left?) **Step 15** Take away (How many left?) **Step 16** Subtraction on a number line **Step 17** Add or subtract 1 or 2 **Y1 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y1 GAPS**					**Step 1** Recognise and name 3-D shapes **Step 2** Sort 3-D shapes **Step 3** Recognise and name 2-D shapes **Step 4** Sort 2-D shapes **Step 5** Patterns with 2-D and 3-D shapes **Y1 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y1 GAPS**	
RTP Criteria	**1NPV–1** Count within 100 **(10),** forwards and backwards, starting with any number **(1)** **1NPV–2** Reason about the location of numbers to 20 **(10)** within the linear number system, including comparing using < > and = **(1)**					**1NF–1** Develop fluency in addition and subtraction facts within 10. **1AS–1** Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers **1AS–2** Read, write and interpret equations containing addition (+), subtraction (-) and equals (=) symbols, and relate additive expressions and equations to real-life contexts **(1)**					**1G–1** Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another. **1G–2** Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.	

	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 *(within 10)*					**Addition & Subtraction *(within 10)***					**Geometry *(shape)***	**Consolidation** **Y1 Autumn Term Assessment or RTP Assessments**
Problem Solving Skills	ngage with mathematical activities and problems, making links and moving between different representations (concrete, pictorial, abstract). Independently choose to scaffold thinking using concrete and pictorial representations, if required. Independently choose to represent thinking using concrete, pictorial or abstract representations, as appropriate. Begin to independently find a starting point to break into a problem. Use trial and improvement strategy. Independently find possibilities. With support (adult, peer) check work (e.g. look for other possibilities, repeats, missing answers and errors). Independently pattern spot and copy and continue a pattern (objects, shapes, numbers, spatial) predicting what will come next. With support, investigate statements.											
Reasoning Skills	. Describe and explain with reasons. Listen to others' explanations and try to make sense of them.											

Year 2 Autumn Term- Medium Term Planning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
	Place Value				**Addition & Subtraction**					**Geometry *(shape)***			**Consolidation**	
National Curriculum Objectives	Read and write numbers from 1 to 20 in numerals and words **(Y1)** Read and write numbers to at least 100 in numerals and in words Read and write numbers to at least 100 in numerals and in words Identify, represent and estimate numbers using different representations, including the number line Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward Recognise the place value of each digit in a 2-digit number (tens, ones) Compare and order numbers from 0 up to 100; use and = signs				Represent and use number bonds and related subtraction facts within 20 **(Y1)** Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: • a 2-digit number and 1s, • a 2-digit number and 10s, • two 2-digit numbers • adding three 1-digit numbers Compare and order numbers from 0 up to 100; use and = signs					Identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line Compare and sort common 2-D and 3-D shapes and everyday objects Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes			**Y2 Autumn Term Assessment or RTP Assessments or KS1 SATs**	
White Rose Small Steps	**<u>Y1 PRE-BLOCK ASSESSMENT and Y1 GAPS</u>** **Step 1** Numbers to 20 **Step 2** Count objects to 100 by making 10s **Step 3** Recognise tens and ones **Step 4** Use a place value chart **Step 5** Partition numbers to 100 **Step 6** Write numbers to 100 in words **Step 7** Flexibly partition numbers to 100 **Step 8** Write numbers to 100 in expanded form **Step 9** 10s on the number line to 100 **Step 10** 10s and 1s on the number line to 100 **Step 11** Estimate numbers on a number line **Step 12** Compare objects **Step 13** Compare numbers **Step 14** Order objects and numbers **Step 15** Count in 2s, 5s and 10s **Step 16** Count in 3s **<u>Y2 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y2 GAPS</u>**				**<u>Y1 PRE-BLOCK ASSESSMENT and Y1 GAPS</u>** **Step 1** Bonds to 10 **Step 2** Fact families - addition and subtraction bonds within 20 **Step 3** Related facts **Step 4** Bonds to 100 (tens) **Step 5** Add and subtract 1s **Step 6** Add by making 10 **Step 7** Add three 1-digit numbers **Step 8** Add to the next 10 **Step 9** Add across a 10 **Step 10** Subtract across 10 **Step 11** Subtract from a 10 **Step 12** Subtract a 1-digit number from a 2-digit number (across a 10) **Step 13** 10 more, 10 less **Step 14** Add and subtract 10s **Step 15** Add two 2-digit numbers (not across a 10) **Step 16** Add two 2-digit numbers (across a 10) **Step 17** Subtract two 2-digit numbers (not across a 10) **Step 18** Subtract two 2-digit numbers (across a 10) **Step 19** Mixed addition and subtraction **Step 20** Compare number sentences **Step 21** Missing number problems **<u>Y2 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y2 GAPS</u>**					**<u>Y1 PRE-BLOCK ASSESSMENT and Y1 GAPS</u>** **Step 1** Recognise 2-D and 3-D shapes **Step 2** Count sides on 2-D shapes **Step 3** Count vertices on 2-D shapes **Step 4** Draw 2-D shapes **Step 5** Lines of symmetry on shapes **Step 6** Use lines of symmetry to complete shapes **Step 7** Sort 2-D shapes **Step 8** Count faces on 3-D shapes **Step 9** Count edges on 3-D shapes **Step 10** Count vertices on 3-D shapes **Step 11** Sort 3-D shapes **Step 12** Make patterns with 2-D and 3-D shapes **<u>Y2 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y2 GAPS</u>**				

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13	Week 14
	Place Value				**Addition & Subtraction**					**Geometry *(shape)***			**Consolidation** **Y2 Autumn Term Assessment or RTP Assessments or KS1 SATs**	
	2NPV–1 Recognise the place value of each digit in two-digit numbers and compose and decompose two-digit numbers using standard and non-standard partitioning. **2NPV–2** Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10 **(1)**				**2NF–1** Secure fluency in addition and subtraction facts within 10, through continued practice. **2AS–1** Add and subtract across 10. **2AS–2** Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more…?" **(1)** **2AS–3** Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number. **2AS–4** Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers **(1)**					**2G–1** Use precise language to describe the properties of 2D and 3D shapes, and compare shapes by reasoning about similarities and differences in properties				
Working Towards	**WTS**: partition a two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources to support them **WTS**: read and write numbers in numerals up to 100				**WTS:** recall at least four of the six number bonds for 10 and reason about associated facts **WTS**: add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required, explaining their method verbally, in pictures or using apparatus					**WTS:** name some common 2-D and 3-D shapes from a group of shapes or from pictures of the shapes and describe some of their properties				
Expected	**EXS:** read scales* in divisions of ones, twos, fives and tens **EXS:** partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus				**EXS:** add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus **EXS:** recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships					**EXS**: name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry				
Greater Depth	**GDS**: read scales* where not all numbers on the scale are given and estimate points in between				**GDS**: use reasoning about numbers and relationships to solve more complex problems and explain their thinking **GDS**: solve unfamiliar word problems that involve more than one step					**GDS**: describe similarities and differences of 2-D and 3-D shapes, using their properties				
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. Independently find a starting point to break into a problem. With support work systematically. Independently find possibilities. Independently check work (e.g. look for other possibilities, repeats, missing answers and errors). Pattern spot and predict what will come next in a pattern/sequence (numbers, shapes, spatial). With support, investigate statements and conjectures.													
Reasoning Skills	Explain with reasons and beginning to use given sentence stems and connectives to expand. Listen to others' explanations, make sense of them and compare and evaluate. Begin to edit and improve their own and a peer's explanation. Investigate 'what if?' questions.													

Year 3 Autumn Term- Medium Term Planning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13 - 14
	Place Value			**Addition & Subtraction**					**Multiplication & Division A**				**Consolidation** **Y3 Autumn Term Assessment or RTP Assessments**
National Curriculum Objectives	Identify, represent and estimate numbers using different representations Recognise the place value of each digit in a 3-digit number (hundreds, tens, ones) Count from zero in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number Count from zero in multiples of 4, 8, 50 and 100 Read and write numbers up to 1,000 in numerals and word Compare and order numbers up to 1,000 s			Add and subtract numbers mentally, including: • a 3-digit number and ones • a 3-digit number and tens • a 3-digit number and hundreds Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction Estimate the answer to a calculation and use inverse operations to check answers					Show that multiplication of two numbers can be done in any order (commutative) and division on one number by another cannot **(Y2)** Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward **(Y2)** Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers **(Y2)** Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods				
White Rose Small Steps	**Y2 PRE-ASSESSMENT and ADDRESS Y2 GAPS** **Step 1** Represent numbers to 100 **Step 2** Partition numbers to 100 **Step 3** Number line to 100 **Step 4** Hundreds **Step 5** Represent numbers to 1,000 **Step 6** Partition numbers to 1,000 **Step 7** Flexible partitioning of numbers to 1,000 **Step 8** Hundreds, tens and ones **Step 9** Find 1, 10 or 100 more or less **Step 10** Number line to 1,000 **Step 11** Estimate on a number line to 1,000 **Step 12** Compare numbers to 1,000 **Step 13** Order numbers to 1,000 **Step 14** Count in 50s **Y3 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y3 GAPS**			**Y2 PRE-ASSESSMENT and ADDRESS Y2 GAPS** **Step 1** Apply number bonds within 10 **Step 2** Add and subtract 1s **Step 3** Add and subtract 10s **Step 4** Add and subtract 100s **Step 5** Spot the pattern **Step 6** Add 1s across a 10 **Step 7** Add 10s across a 100 Step 8 Subtract 1s across a 10 **Step 9** Subtract 10s across a 100 **Step 10** Make connections **Step 11** Add two numbers (no exchange) **Step 12** Subtract two numbers (no exchange) **Step 13** Add two numbers (across a 10) **Step 14** Add two numbers (across a 100) **Step 15** Subtract two numbers (across a 10) **Step 16** Subtract two numbers (across a 100 **Step 17** Add 2-digit and 3-digit numbers **Step 18** Subtract a 2-digit number from a 3-digit number **Step 19** Complements to 100 **Step 20** Estimate answers **Step 21** Inverse operations **Step 22** Make decisions **Y3 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y3 GAPS**					**Y2 PRE-ASSESSMENT and ADDRESS Y2 GAPS** **Step 1** Multiplication – equal groups **Step 2** Use arrays **Step 3** Multiples of 2 **Step 4** Multiples of 5 and 10 **Step 5** Sharing and grouping **Step 6** Multiply by 3 **Step 7** Divide by 3 **Step 8** The 3 times-table **Step 9** Multiply by 4 **Step 10** Divide by 4 **Step 11** The 4 times-table **Step 12** Multiply by 8 **Step 13** Divide by 8 **Step 14** The 8 times-table **Step 15** The 2, 4 and 8 times-tables **Y3 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y3 GAPS**				

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13 – 14
	Place Value			**Addition & Subtraction**					**Multiplication & Division A**				**Consolidation** **Y3 Autumn Term Assessment or RTP Assessments**
RTP Criteria	**3NPV–1** Know that 10 tens are equivalent to 1 hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10 **(1)** **3NPV–2** Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning. **3NPV–3** Reason about the location of any threedigit number in the linear number system, including identifying the previous and next multiple of 100 and 10 **(1)** **3NPV–4** Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts **(1)**			**3NF–1** Secure fluency in addition and subtraction facts that bridge 10, through continued practice. **3NF–3** Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10) **(1)** **3AS–1** Calculate complements to 100. **3AS–2** Add and subtract up to three-digit numbers using columnar methods. **3AS–3** Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction **(1)**				**3NF–2** Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. **3NF–3** Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10) **(2)** **3MD–1** Apply known multiplication and division facts to solve contextual problems with different structures, including quotitive and partitive division **(1)**			
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. Independently find an efficient way to solve a range of problems. Independently work systematically. Independently find possibilities 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 predict what will come next in a pattern/sequence (numbers, shape or spatial). Independently 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 convinced argument. Reflect on others' convinced explanations and use this to improve their work. Edit and improve their own and a peer's convinced explanation. Investigate 'what if?' questions. Create 'what if?' questions.												

Year 4 Autumn Term- Medium Term Planning

	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**			**Consolidation**
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			**Y4 Autumn Term Assessment or RTP Assessments**
White Rose Small Steps	**<u>Y3 PRE-ASSESSMENT and ADDRESS Y3 GAPS</u>** **Step 1** Represent numbers to 1,000 **Step 2** Partition numbers to 1,000 **Step 3** Number line to 1,000 **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 **Step 8** Find 1, 10, 100, 1,000 more or less **Step 9** Number line to 10,000 **Step 10** Estimate on a number line to 10,000 **Step 11** Compare numbers to 10,000 **Step 12** Order numbers to 10,000 **Step 13** Roman numerals **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 **<u>Y4 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y4 GAPS</u>**				**<u>Y3 PRE-ASSESSMENT and ADDRESS Y3 GAPS</u>** **Step 1** Add and subtract 1s, 10s, 100s and 1,000s **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 **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 **Step 8** Efficient subtraction **Step 9** Estimate answers **Step 10** Checking strategies **<u>Y4 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y4 GAPS</u>**			**Step 1** What is area? **Step 2** Count squares **Step 3** Make shapes **Step 4** Compare areas **<u>Y4 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y4 GAPS</u>**	**<u>Y3 PRE-ASSESSMENT and ADDRESS Y3 GAPS</u>** **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 **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 **Step 11** Multiply by 1 and 0 **Step 12** Divide a number by 1 and itself **Step 13** Multiply three numbers **<u>Y4 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y4 GAPS</u>**			

	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**			**Consolidation**
RTP Criteria	**4NPV–2** Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning. **4NPV–3** Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.				**4NF–3** Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) **(1)**				**4NPV–1** Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100. **4NF–1** Recall multiplication and division facts up to 12x12, and recognise products in multiplication tables as multiples of the corresponding number **(1)** **4NF–2** Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. **4NF–3** Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100) **(2)** **4MD–1** Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. **4MD–2** Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication **(1)**			**Y4 Autumn Term Assessment or RTP Assessments**
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.											

Year 5 Autumn Term- Medium Term Planning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13 - 14
	Place Value			**Addition & Subtraction**		**Multiplication & Division A**			**Fractions A**				**Consolidation**
National Curriculum Objectives	Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 Solve number problems and practical problems involving the above			Add and subtract numbers mentally with increasingly large numbers Add and subtract whole numbers with more than four digits, including using formal written methods (columnar addition and subtraction) Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy		Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numbers, and the notation for squared (2) and cubed (3) Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 Multiply and divide numbers mentally, drawing upon known facts			Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements > 1 as a mixed number Compare and order fractions whose denominators are all multiples of the same number Add and subtract fractions with the same denominator, and denominators that are multiples of the same number			**Y5 Autumn Term Assessment or RTP Assessments**
White Rose Small Steps	**Y4 PRE-ASSESSMENT and ADDRESS Y4 GAPS** **Step 1** Roman numerals to 1,000 **Step 2** Numbers to 10,000 **Step 3** Numbers to 100,000 **Step 4** Numbers to 1,000,000 **Step 5** Read and write numbers to 1,000,000 **Step 6** Powers of 10 **Step 7** 10/100/1,000/10,000/100,000 more or less **Step 8** Partition numbers to 1,000,000 **Step 9** Number line to 1,000,000 **Step 10** Compare and order numbers to 100,000 **Step 11** Compare and order numbers to 1,000,000 **Step 12** Round to the nearest 10, 100 or 1,000 **Step 13** Round within 100,000 **Step 14** Round within 1,000,000 **Y5 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y5 GAPS**			**Y4 PRE-ASSESSMENT and ADDRESS Y4 GAPS** **Step 1** Mental strategies **Step 2** Add whole numbers with more than four digits **Step 3** Subtract whole numbers with more than four digits **Step 4** Round to check answers **Step 5** Inverse operations (addition and subtraction) **Step 6** Multi-step addition and subtraction problems **Step 7** Compare calculations **Step 8** Find missing numbers **Y5 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y5 GAPS**		**Y4 PRE-ASSESSMENT and ADDRESS Y4 GAPS** **Step 1** Multiples **Step 2** Common multiples **Step 3** Factors **Step 4** Common factors **Step 5** Prime numbers **Step 6** Square numbers **Step 7** Cube numbers **Step 8** Multiply by 10, 100 and 1,000 **Step 9** Divide by 10, 100 and 1,000 **Step 10** Multiples of 10, 100 and 1,000 **Y5 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y5 GAPS**			**Y4 PRE-ASSESSMENT and ADDRESS Y4 GAPS** **Step 1** Find fractions equivalent to a unit fraction **Step 2** Find fractions equivalent to a non-unit fraction **Step 3** Recognise equivalent fractions **Step 4** Convert improper fractions to mixed numbers **Step 5** Convert mixed numbers to improper fractions **Step 6** Compare fractions less than 1 **Step 7** Order fractions less than 1 **Step 8** Compare and order fractions greater than 1 **Step 9** Add and subtract fractions with the same denominator **Step 10** Add fractions within 1 **Step 11** Add fractions with total greater than 1 **Step 12** Add to a mixed number **Step 13** Add two mixed numbers **Step 14** Subtract fractions **Step 15** Subtract from a mixed number **Step 16** Subtract from a mixed number – breaking the whole **Step 17** Subtract two mixed numbers **Y5 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y5 GAPS**			

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13 – 14
	Place Value			**Addition & Subtraction**		**Multiplication & Division A**			**Fractions A**				**Consolidation**
RTP Criteria				**5NF–2** Apply place-value knowledge to known <u>additive</u> and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth)		**5NF–1** Secure fluency in multiplication table facts, and corresponding division facts, through continued practice. **5NF–2** Apply place-value knowledge to known additive and <u>multiplicative</u> number facts (scaling facts by 1 tenth or 1 hundredth) **5MD–1** Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size. **5MD–2** Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.			**5F–1** Find non-unit fractions of quantities. **5F–2** Find equivalent fractions and understand that they have the same value and the same position in the linear number system. **5F–3** Recall decimal fraction equivalents for 1/2, 1/4, 1/5 and 1/10, and for multiples of these proper fractions.				**Y5 Autumn Term Assessment or RTP Assessments**
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. Organise work from the outset, looking for ways to record and work systematically. 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 independently 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, expressing generalisation/rules 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.												

Year 6 Autumn Term- Medium Term Planning

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13 - 14
	Place Value		**Addition, Subtraction, Multiplication & Division**					**Fractions A**		**Fractions B**		**Measurement *(converting units)***	**Consolidation** **Y6 Autumn Term Assessment or RTP Assessments or KS2 PAST SAT**
National Curriculum Objectives	Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit Round any whole number to a required degree of accuracy Use negative numbers in context, and calculate intervals across zero Solve number and practical problems that involve the above		Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy Identify common factors, common multiples and prime numbers Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication Perform mental calculations, including with mixed operations and large numbers Divide numbers up to four digits by a 2-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context Divide numbers up to four digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context					Use common factors to simplify fractions; use common multiples to express fractions in the same denomination Compare and order fractions, including fractions > 1 Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Identify common factors, common multiples and prime numbers Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Solve problems involving addition, subtraction, multiplication and division		Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams **(Y5)** Multiply simple pairs of proper fractions, writing the answer in its simplest form Divide proper fractions by whole numbers Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions Solve problems involving addition, subtraction, multiplication and division Associate a fraction with division and calculate decimal fraction equivalents		Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3 decimal places	
White Rose Small Steps	**Y5 PRE-ASSESSMENT and ADDRESS Y5 GAPS** **Step 1** Numbers to 1,000,000 **Step 2** Numbers to 10,000,000 **Step 3** Read and write numbers to 10,000,000 **Step 4** Powers of 10 **Step 5** Number line to 10,000,000 **Step 6** Compare and order any integers **Step 7** Round any integer **Step 8** Negative numbers **Y6 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y6 GAPS**		**Y5 PRE-ASSESSMENT and ADDRESS Y5 GAPS** **Step 1** Add and subtract integers **Step 2** Common factors **Step 3** Common multiples **Step 4** Rules of divisibility **Step 5** Primes to 100 **Step 6** Square and cube numbers **Step 7** Multiply up to a 4-digit number by a 2-digit number **Step 8** Solve problems with multiplication **Step 9** Short division **Step 10** Division using factors **Step 11** Introduction to long division **Step 12** Long division with remainders **Step 13** Solve problems with division **Step 14** Solve multi-step problems **Step 15** Order of operations **Step 16** Mental calculations and estimation **Step 17** Reason from known facts **Y6 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y6 GAPS**					**Y5 PRE-ASSESSMENT and ADDRESS Y5 GAPS** **Step 1** Equivalent fractions and simplifying **Step 2** Equivalent fractions on a number line **Step 3** Compare and order (denominator) **Step 4** Compare and order (numerator) **Step 5** Add and subtract simple fractions **Step 6** Add and subtract any two fractions **Step 7** Add mixed numbers **Step 8** Subtract mixed number **Step 9** Multi-step problems **Y6 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y6 GAPS**		**Y5 PRE-ASSESSMENT and ADDRESS Y5 GAPS** **Step 1** Multiply fractions by integers **Step 2** Multiply fractions by fractions **Step 3** Divide a fraction by an integer **Step 4** Divide any fraction by an integer **Step 5** Mixed questions with fractions **Step 6** Fraction of an amount **Step 7** Fraction of an amount – find the whole **Y6 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y6 GAPS**		**Y5 PRE-ASSESSMENT and ADDRESS Y5 GAPS** **Step 1** Metric measures **Step 2** Convert metric measures **Step 3** Calculate with metric measures **Step 4** Miles and kilometres **Step 5** Imperial measures **Y6 POST ASSESSMENT/RTP ASSESSMENTS and ADDRESS Y6 GAPS**	

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Week 13 - 14
	Place Value		**Addition, Subtraction, Multiplication & Division**					**Fractions A**		**Fractions B**		**Measurement *(converting units)***	**Consolidation** **Y6 Autumn Term Assessment or RTP Assessments or KS2 PAST SAT**
RTP Criteria	**6NPV–2** Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning **(1)** **6NPV–3** Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts.		**6AS/MD–1** Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). **6AS/MD–2** Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.					**6F–1** Recognise when fractions can be simplified, and use common factors to simplify fractions. **6F–2** Express fractions in a common denomination and use this to compare fractions that are similar in value. **6F–3** Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.		*See Autumn Term 'Fractions A' block*		**6NPV–1** Understand the relationship between powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000) **(1)** **6NPV–4** Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts **(1)**	
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. Organise work from the outset, looking for ways to record and work systematically. Find and predict possibilities that match the context using patterns spotted to support. Independently check and improve their work (e.g. look for other possibilities, repeats, missing answers, errors and ways to improve). Pattern spot and begin to express generalisations/proof using words and symbolic notation. 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 proof of reasoning, expressing generalisations in words and symbolic notation. Reflect on others' proof and use this to improve their own work. Edit and improve their own and a peer's proof. Investigate 'what if?' questions. Create 'what if?' questions.												