

	Wk 1	Wk 2	Wk 3	Wk 4	Wk 5	Wk 6	Wk 7	Wk 8	Wk 9	Wk 10	Wk 11	Wk 12	Wk 13	Wk 14	Wk 15
Autumn	Transition	Place Value				Addition and Subtraction	Assessment Addition and Subtraction	Addition and subtraction		Multiplication and Division				Assessment	Multiplication and Division
Spring	Consolidation or times tables	Multiplication and division	Measure: Length and Perimeter and area		Fractions	Assessment & Fractions	Fractions		Measurement: Mass and Capacity			Decimals & Assessment week			
Summer	Decimals			Measure: Money & Time Assessment Week		Statistics		Geometry							

Place Value

National Curriculum Objectives	White Rose Small Steps	
<p>Year 3 Identify, represent and estimate numbers using different representations.</p> <p><u>Find 10 or 100 more or less than a given number;</u></p> <p><u>Recognise the place value of each digit in a three digit number (hundreds, tens, ones).</u></p> <p>Compare and order numbers up to 1000.</p> <p>Read and write numbers up to 1000 in numerals and in words</p> <p>Solve number problems and practical problems involving these ideas.</p> <p><u>Count from 0 in multiples of 4, 8, 50 and 100</u></p> <p>Year 4 <u>Count in multiples of 6, 7, 9, 25 and 1000.</u></p> <p>Find 1000 more or less than a given number.</p> <p>Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones)</p> <p>Identify, represent and estimate numbers using different representations.</p> <p><u>Order and compare numbers beyond 1000.</u></p> <p><u>Round any number to the nearest 10, 100 or 1000.</u></p> <p><u>Count backwards through zero to include negative numbers.</u></p> <p>Solve number and practical problems that involve all of the above and with increasingly large positive numbers.</p> <p>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.</p>	<p>Year 3</p> <ul style="list-style-type: none"> • Represent numbers to 100 • Tens and ones with a part-whole model • Tens and ones using addition • Hundreds • Represent numbers to 1,000 • 100s, 10s and 1s • Number line to 100 • Number line to 1,000 • Find 1, 10, 100 more or less than a given number • Compare objects to 1,000 • Compare numbers to 1,000 (Recap to 100) • Order numbers • Count in 50s 	<p>Year 4</p> <ul style="list-style-type: none"> • Represent numbers to 1,000 • 100s, 10s, 1s • Number line to 1,000 • Round to nearest 10 • Round to the nearest 10 • Round to the nearest 100 • Count in 1,000s (consolidate counting in 50s/100s) • 1,000s, 100s, 10s, and 1s • Partitioning Number line to 10,000 • Find 1, 10, 100 more or less • 1,000 more or less • Compare numbers • Order Numbers • Round to nearest 1,000 • Count in 25s • Negative numbers • Roman numerals to 100

DFE Guidance (ready to progress criteria)

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.

2NPV - Count in multiples of 2, 5 and 10.

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 three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10.

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.

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.

4NPV–4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.

Addition and Subtraction

National Curriculum Objectives	White Rose Small Steps	
<p>Year 3 <u>Add and subtract numbers mentally, including: a three- digit number and ones; a three-digit number and tens; a three digit number and hundreds.</u></p> <p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</p> <p>Estimate the answer to a calculation and use inverse operations to check answers.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p> <p>Year 4 - <u>Add and subtract numbers mentally, including: a three- digit number and ones; a three-digit number and tens; a three digit number and hundreds.</u></p>	<ul style="list-style-type: none"> • Add and subtract multiples of 100. • Add and subtract 1s • Add and subtract 3-digit and 1-digit numbers – not crossing 10 • Add 2-digit and 1-digit numbers – crossing 10 • Add 3-digit and 1-digit numbers – crossing 10 • 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 • Add two 2-digit numbers – crossing 10 – add ones and add tens • Subtract a 2-digit number from a 2-digit number -crossing 10- subtract ones and subtract tens. • Add and subtract a 2-digit and 3-digit numbers – not crossing 10 or 100. • Add a 2-digit and 3-digit numbers – crossing 10 or 100 	<ul style="list-style-type: none"> • Add and subtract 1s, 10s, 100s, and 1,000s • Add two 4-digit numbers – no exchange • 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 • Subtract a 3-digit number from a 3-digit number – no exchange. • Subtract two 4-digit numbers – no exchange • 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 • Efficient subtraction • Estimate answers • Checking strategies

<p>Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.</p> <p>Estimate the answer to a calculation and use inverse operations to check answers.</p> <p>Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.</p> <p>2NF - Add and subtract across 10</p> <p>2NF - Automatically recall addition and subtraction facts within 10, and across 10. Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten.</p>	<ul style="list-style-type: none"> • Subtract a 2-digit number from a 3-digit number – 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. 	
<p>2AS - Automatically recall number bonds to 9 and to 10. Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred.</p> <p>2AS - Automatically recall addition and subtraction facts within 10 and across 10. Recognise the place value of each digit in two-</p>	<p><u>DFE Guidance (ready to progress criteria)</u></p> <p>3NF–1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.</p>	<p>4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example:</p>

and three-digit numbers. Know that 10 ones are equivalent to 1 ten, and 10 tens are equivalent to 1 hundred.

2AS - Have experience with the commutative property of addition, for example, have recognised that $3 + 2$ and $2 + 3$ have the same sum. Be able to write an equation in different ways, for example, $2 + 3 = 5$ and $5 = 2 + 3$ Write equations to represent addition and subtraction contexts.

3NF – 3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example:

$$80 + 60 = 140$$

$$140 - 60 = 80$$

3AS–1 Calculate complements to 100, for example:
 $46 + ? = 100$

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.

$$8 + 6 = 14 \text{ and } 14 - 6 = 8$$

so

$$800 + 600 = 1,400$$

$$1,400 - 600 = 800$$

Multiplication and Division

National Curriculum Objectives	White Rose Small Steps	
<p><u>Year 3</u> Count from 0 in multiples of 4, 8, 50 and 100</p> <p><u>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</u></p> <p><u>Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</u></p> <p>Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.</p> <p><u>Year 4</u></p>	<ul style="list-style-type: none"> • Multiplication – equal groups • Make equal groups – sharing • Make equal groups – grouping • Multiply by 3 • Divide by 3 • The 3 times-table • Multiply by 4 • Divide by 4 • The 4 times-table • Multiply by 8 • Divide by 8 • The 8 times-table • Consolidate 2,4 and 8 times tables • Comparing statements • Related calculations • Multiply 2 digit by 1 digit • Divide 2 digit by 1 digit • Scaling • How many ways? 	<ul style="list-style-type: none"> • Multiply by 10 • Multiply by 100 • Divide by 10 • Divide by 100 • Multiply by 1 and 0 • Divide by 1 and itself • Multiply and divide by 3 • 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
<p><u>Count from 0 in multiples of 4, 8, 50 and 100</u></p> <p><u>Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables.</u></p> <p><u>Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods.</u></p>		

Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects.

DFE Guidance (ready to progress criteria)

2NPV - Know that 10 ones are equivalent to 1 ten, and that 40 (for example) can be composed from 40 ones or 4 tens. Know how many tens there are in multiples of 10 up to 100.

2NF - Calculate products within the 2, 5 and 10 multiplication tables.

2NF - Automatically recall addition and subtraction facts within 10, and across 10. Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten.

2 - Recognise repeated addition contexts and represent them with multiplication equations. Relate grouping problems where the number of groups is unknown to multiplication equations

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.

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 - Use known division facts to solve division problems. Calculate small differences, for example:

$$74 - 72 = 2$$

3NF – 3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10), for example:

$$30 \times 4 = 120$$

$$120 \div 4 = 30$$

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 , 12 x 12 and recognise products in multiplication tables as multiples of the corresponding number.

4NF–2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, for example: and interpret remainders appropriately according to the context.

$$74 \div 9 = 8 \text{ r } 2$$

with a missing factor, and to division equations (quotitive division).

3MD–1 Apply known multiplication and division facts to solve contextual problems with different structures, including quotative and partitive division.

Multiply two-digit numbers by 10, and divide three-digit multiples of 10 by 10.

Understand the inverse relationship between multiplication and division. Write and use multiplication table facts with the factors presented in either order.

4NF–3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100), for example:

$$3 \times 4 = 12 \text{ and } 12 \div 4 = 3$$

so

$$300 \times 4 = 1,200$$
$$1,200 \div 4 = 300$$

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.

4MD–3 Understand and apply the distributive property of multiplication.

Length and Perimeter

National Curriculum Objectives

Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres.

Convert between different units of measure (for examples, kilometre to metre).

**THIS WAS NOT COVERED
2020/21 due to Remote Learning**

White Rose Small Steps

- Measure length
- Equivalent lengths – m & cm
- Equivalent lengths – mm & cm

- Compare lengths
- Add lengths
- Subtract lengths
- What is perimeter?
- Measure Perimeter
- Calculate perimeter

- Kilometres
- Perimeter on a grid
- Perimeter of a rectangle
- Perimeter of rectilinear shapes

Area

Find the area of rectilinear shapes by counting squares.

White Rose Small Steps

- What is area?
- Counting squares
- Making shapes
- Comparing area

Fractions

National Curriculum Objectives

Year 3

Count up and down in tenths. Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10

Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators.

Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.

Solve problems that involve all of the above.

Year 4

Recognise and show, using diagrams, families of common equivalent fractions.

Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten.

White Rose Small Steps

- Working with wholes and parts activity
 - Recap – Make equal parts
 - Recognise a half
 - Find a half
 - Recognise a quarter
 - Find a quarter
 - Recognise a third
 - Find a third
 - Unit fractions
 - Non-unit fractions
 - Equivalence of a half and 2 quarters
 - Count in fractions
 - Making the whole
 - Tenths
 - Count in tenths
 - Fractions on a number line
 - Fractions of a set of objects (3)
 - Equivalent fractions (3)
 - Compare fractions
 - Order fractions
 - Add fractions
 - Subtract fractions
- Unit and non-unit fractions
 - What is a fraction?
 - Tenths
 - Count in tenths
 - Equivalent fractions (2)
 - Equivalent fractions (2)
 - Fractions greater than 1
 - Count in fractions **Add fractions**
 - Add 2 or more fractions
 - **Subtract fractions**
 - Subtract 2 fractions
 - Subtract from whole amounts
 - **Fractions of a set of objects (2)**
 - Calculate fractions of a quantity
 - Problem solving – calculate quantities

Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number.

Add and subtract fractions with the same denominator.

	<p>Reason about the location of whole numbers in the linear number system.</p> <p>Automatically recall addition and subtraction facts within 10. Unitise in tens: understand that 10 can be thought of as a single unit of 1 ten, and that these units can be added and subtracted.</p>	<p>DFE Guidance (ready to progress criteria)</p> <p>3 Reason about the location of fractions less than 1 in the linear number system.</p> <p>3 Identify unit and non- unit fractions.</p> <p>3 Add and subtract fractions with the same denominator, within 1 whole.</p>	<p>4F–1 Reason about the location of mixed numbers in the linear number system.</p> <p>4F–2 Convert mixed numbers to improper fractions and vice versa.</p> <p>4F–3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers, for example:</p> <div data-bbox="1787 587 2011 845" style="border: 1px solid black; padding: 5px; margin: 10px 0;"> $\frac{7}{5} + \frac{4}{5} = \frac{11}{5}$ $3\frac{7}{8} - \frac{2}{8} = 3\frac{5}{8}$ $7\frac{2}{5} + \frac{4}{5} = 8\frac{1}{5}$ $8\frac{1}{5} - \frac{4}{5} = 7\frac{2}{5}$ </div>
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Money

National Curriculum Objectives

Add and subtract amounts of money to give change, using both £ and p in practical contexts.

White Rose Small Steps

- Count money pence, pounds, notes and coins.
- Pounds and pence
- Convert pounds and pence
- Add and Subtract money
- Give change

- Pounds to pence
- Ordering money
- Estimating money
- Convert pounds and pence
- Add money Subtract money
- Find change
- Working with money activity
- Four operations

Time

National Curriculum Objectives

Convert between different units of measure eg hour to minute.

Read, write & convert time between analogue and digital 12 and 14 hour clocks.

Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days

White Rose Small Steps

- Months and years
- Hours in a day
- Telling the time to 5 minutes
- Telling the time to the minute
- Using am and pm
- 24-hour clock activity
- 24-hour clock
- Finding the duration
- Comparing durations
- Start and end times
- Measuring time in seconds
- Problem solving with time

- Using a.m. and p.m. and 24-hour clock
- Hours, minutes and seconds
- Years, months, weeks and days
- Analogue to digital – 12 hour and 24 hour

Statistic

National Curriculum Objectives

Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.

White Rose Small Steps

- Make tally charts
- Draw pictograms
- Interpret pictograms
- Bar charts
- Tables

- Interpret charts
- Comparison, sum and difference
- Introducing line graphs
- Line graphs

Geometry

Draw 2-D shapes and make 3-D shapes using modelling materials.

Recognise 3-D shapes in different orientations and describe them.

Identify horizontal and vertical lines and pairs of perpendicular and parallel lines.

Recognise angles as a property of shape or a description of a turn.

Identify right angles, recognise that two right angles make a half-term, three make three quarters of a turn and four a complete turn; identify whether angles

White Rose Small Steps

<p><u>are greater than or less than a right angle.</u></p> <p>Find the area of rectilinear shapes by counting squares.</p>	<ul style="list-style-type: none"> • Turns and angles • Right angles in shapes • Compare angles • Draw accurately • Horizontal and vertical • Parallel and perpendicular • Recognise and describe 2D shapes • Recognise and describe 3D shapes • Make 3D shapes 	<ul style="list-style-type: none"> • Identify angles • Compare and order angles • Recognise and describe 2D shapes • Triangles activity • Triangles • Quadrilaterals activity • Quadrilaterals Symmetry activity • Lines of symmetry • Complete a symmetric figure • Describe position draw on a grid • Move on a grid • Describe movement on a grid
<p>Recognise standard and non-standard examples of 2D shapes presented in different orientations. Identify similar shapes.</p> <p>Compose 2D shapes from smaller shapes to match an exemplar, rotating and turning over shapes to place them in specific orientations.</p>	<p>DFE Guidance (ready to progress criteria)</p>	
	<p>3 - Draw polygons by joining marked points.</p>	<p>4G–1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant.</p> <p>4G–2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons.</p> <p>4G–3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.</p>