
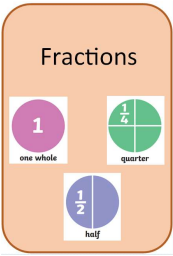
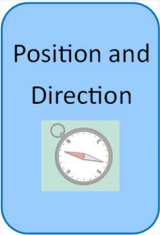




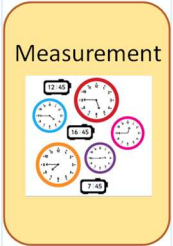
	Fluency Declarative/substantive	Methods Procedural/disciplinary	Reasoning and problem solving Conditional	Retrieval
<p><b>Year 1 Summer</b></p> <p>Multiplication and Division</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that counting in 2s involves counting every other number</li> <li>that equal groups are made up of the same amount</li> <li>that groups can still be equal even if they are represented in a different way</li> <li>to use my knowledge of counting in 2s, 10s and 5s when adding equal groups</li> <li>that an array is a way to represent repeated addition</li> <li>doubles up to 20</li> <li>that groups need to be equal</li> <li>what sharing means</li> <li>what grouping means</li> </ul> <p><b>Fluent in Five</b>  Count in ones to and across 100, forward and backwards, beginning with 0 or 1 or from any given number.  Count in multiples of twos, fives and tens.  Count, read and write numbers up to 100 in numerals.  Read and write numbers from 1 to 20 in words.  Identify one more and one less.  Represent and use number bonds within 20.  Represent and use number bonds and related subtraction facts within 20.  Add and subtract one-digit and two digit numbers to 20, including zero.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>record adding equal groups as repeated addition</li> <li>arrange objects in equal rows or columns to create an array</li> <li>solve division by grouping</li> <li>solve division by sharing</li> <li>how to count on and backwards in 2s</li> <li>how to count on and backwards in 10s</li> <li>how to count on and backwards in 5s</li> </ul>	<ul style="list-style-type: none"> <li>Spot patterns when counting in 2s</li> <li>Spot patterns when counting in 10s</li> <li>Spot patterns when counting in 5s</li> <li>Compare when adding equal groups</li> </ul> <p>Solve one-step problems involving multiplication and division by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher</p>	<p>Geometry (shape)  Compare the capacities of different containers.</p> <hr/> <p><b>Resources/staff subject knowledge:</b>  White Rose  Classroom Secrets  Thinking Toms  NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b>Vocabulary</b>  Equal groups  Groups  Lots  Teen numbers  Tens numbers  Multiples  Altogether  Array  Column  Row  Double</p>

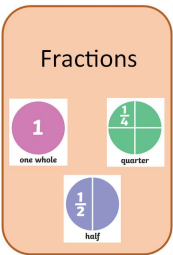
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 1 Summer</b></p> <p>Fractions</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that a half is one of two equal parts</li> <li>that the parts must be equal</li> <li>that you can find half of objects, shapes and a quantity</li> <li>that half can mean 'one out of every two objects'</li> <li>that a quarter is one of four equal parts</li> <li>that you can find a quarter of objects, shapes and a quantity</li> </ul> <p><b>Fluent in Five</b></p> <p>Count in ones to and across 100, forward and backwards, beginning with 0 or 1 or from any given number.</p> <p>Count in multiples of twos, fives and tens.</p> <p>Count, read and write numbers up to 100 in numerals.</p> <p>Read and write numbers from 1 to 20 in words.</p> <p>Identify one more and one less.</p> <p>Represent and use number bonds within 20.</p> <p>Represent and use number bonds and related subtraction facts within 20.</p> <p>Add and subtract one-digit and two digit numbers to 20, including zero.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>recognise half of an object or shape</li> <li>find half of an object or shape</li> <li>recognise half of a quantity</li> <li>find half of a quantity by sharing into two groups</li> <li>recognise quarter of an object or shape</li> <li>find quarter of an object or shape</li> <li>recognise quarter of a quantity</li> <li>find quarter of a quantity by sharing into four groups</li> </ul>	<ul style="list-style-type: none"> <li>Begin to find the whole from the half (if half is 3, the whole is...)</li> <li>Begin to find the whole from the quarter (if a quarter is 2, the whole is...)</li> </ul> <p>Recognise, find and name a half as one of two equal parts of an object, shape or quantity.</p>	<p>Geometry (shape)</p> <p>Count in 2s, 5s and 10s.</p> <p><b>Resources/staff subject knowledge:</b></p> <p>White Rose Classroom Secrets Thinking Toms NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b>Vocabulary</b></p> <p>Whole Half Equal parts Sharing Object Shape Quantity Double Quarter</p>

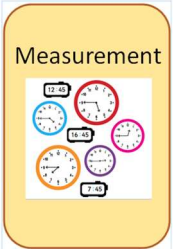
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 1 Summer</b></p> <p>Position and Direction</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>the meaning of 'turn'</li> <li>the direction of 'left'</li> <li>the direction of 'right'</li> <li>the direction of 'forwards'</li> <li>the direction of 'backwards'</li> <li>ordinal numbers 1<sup>st</sup>, 2<sup>nd</sup> and 3<sup>rd</sup></li> <li>some ordinal numbers beyond 3<sup>rd</sup></li> <li>that a full turn will mean that I finish facing the same direction</li> <li>that a half turn will mean that I finish facing the opposite direction</li> </ul> <p><b>Fluent in Five</b>            Count in ones to and across 100, forward and backwards, beginning with 0 or 1 or from any given number.            Count in multiples of twos, fives and tens.            Count, read and write numbers up to 100 in numerals.            Read and write numbers from 1 to 20 in words.            Identify one more and one less.            Represent and use number bonds within 20.            Represent and use number bonds and related subtraction facts within 20.            Add and subtract one-digit and two digit numbers to 20, including zero.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>programme an electronic toy to move forwards, backwards, left and right</li> <li>describe position using the words 'left and 'right'</li> <li>describe position using the words 'above' and 'below'</li> <li>describe position using the words 'forwards and 'backwards'</li> <li>describe position using ordinal numbers</li> </ul>	<ul style="list-style-type: none"> <li>follow instructions with ordinal numbers to correctly order shapes or colours</li> <li>give instructions to a partner using knowledge of positional and direction language</li> </ul> <p>Describe position, direction and movement, including whole, half, quarter and three-quarter turns.</p> <p>Use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside.</p>	<p>Geometry (shape)</p> <p>Find one half and one quarter of shapes, objects and quantities.</p> <p><b>Resources/staff subject knowledge:</b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b>Vocabulary</b>            Full turn            Half turn            Quarter turn            Three-quarter turn            Direction            Position            Left            Right            Forwards            Backwards</p> <p>First (1<sup>st</sup>)            Second (2<sup>nd</sup>)            Third (3<sup>rd</sup>)</p>

	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 1 Summer</b></p> <p>Place Value</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>the order of numbers from 50 to 100</li> <li>the order of numbers from 100 to 50</li> <li>the order of multiples of 10 to 100</li> <li>how many tens and how many ones make a number</li> <li>that one more is the next number when counting in ones</li> <li>that one less is the number that comes before when counting in ones</li> <li>that I can estimate where numbers are on a number line by looking at the start and end of the line</li> <li>the term 'greater than'</li> <li>that &gt; means 'greater than'</li> <li>the term 'less than'</li> <li>that &lt; means 'less than'</li> </ul> <p><b>Fluent in Five</b>            Count in ones to and across 100, forward and backwards, beginning with 0 or 1 or from any given number.            Count in multiples of twos, fives and tens.            Count, read and write numbers up to 100 in numerals.            Read and write numbers from 1 to 20 in words.            Identify one more and one less.            Represent and use number bonds within 20.            Represent and use number bonds and related subtraction facts within 20.            Add and subtract one-digit and two digit numbers to 20, including zero.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>count accurately to 100 forwards and backwards</li> <li>count in 10s to 100</li> <li>count in tens to find a total number of objects (base 10, tens frame, bead string)</li> <li>partition into tens and ones</li> <li>find one more</li> <li>find one less</li> <li>compare numbers using greater than, less than and equal to symbols</li> </ul>	<ul style="list-style-type: none"> <li>Fill in gaps in a hundred square</li> <li>Find missing intervals on a number line in ones</li> <li>Find missing intervals on a number line in tens</li> <li>Begin to estimate the position of numbers on a blank number line</li> <li>Compare two two-digit numbers with different tens and ones</li> </ul> <p>Count to and across 100, forwards and backwards, beginning with zero or 1, or from any given number</p>	<p>Geometry (shape)</p> <p>Do a full, half and quarter turn.</p> <p><b>Resources/staff subject knowledge:</b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b>Vocabulary</b>            Multiples of 10            Groups            Partition            Number line            Estimate            1 more            1 less            Zero            Compare            Greater than            Less than</p>


	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 1 Summer</b></p> <p>Money</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that coins have a different value</li> <li>the value of different coins</li> <li>that I can use my knowledge of counting in 2s, 5s and 10s to count coins</li> <li>the shapes and sizes of different coins</li> <li>that there are 4 notes in British money</li> <li>the value of notes</li> <li>that notes are worth pounds</li> <li>that amounts can be made with a range of coins (20p – 20p coins, 20 1ps, 2 10ps)</li> </ul> <p><b>Fluent in Five</b> Count in ones to and across 100, forward and backwards, beginning with 0 or 1 or from any given number. Count in multiples of twos, fives and tens. Count, read and write numbers up to 100 in numerals. Read and write numbers from 1 to 20 in words. Identify one more and one less. Represent and use number bonds within 20. Represent and use number bonds and related subtraction facts within 20. Add and subtract one-digit and two digit numbers to 20, including zero.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>count in coins using knowledge of counting in 1s, 2s, 5s and 10s</li> <li>match coins to their value</li> <li>match notes to their value</li> </ul>	<ul style="list-style-type: none"> <li>Find different amounts using coins</li> </ul> <p>Recognise and know the value of different denominations of coins and notes.</p> <p>Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s.</p>	<p>Geometry (shape)</p> <p>Count forwards and backwards to 100.</p> <p><b><u>Resources/staff subject knowledge:</u></b> White Rose Classroom Secrets Thinking Toms NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b> Coins Notes Value Greater Less</p>


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<p><b>Year 1 Summer</b></p> <p>Time</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• some vocabulary related to time</li> <li>• the order of the days of the week</li> <li>• that this day is today</li> <li>• the months of the year</li> <li>• that an hour is made up of 60 minutes</li> <li>• that a minute is made up of 60 minutes</li> <li>• that the minute hand points to the 12 for o'clock</li> <li>• that the minute hand points to the 6 for half past</li> <li>• the minute hand is longer than the hour hand</li> <li>• the hour hand points to the hour that it is for o'clock</li> <li>• the hour hand points half way between the hour and the next hour for half past</li> <li>• that a clock face has the numbers 1-12</li> <li>• that the minute hand has travelled half way around the clock for half past</li> </ul> <p><b>Fluent in Five</b>  Count in ones to and across 100, forward and backwards, beginning with 0 or 1 or from any given number.  Count in multiples of twos, fives and tens.  Count, read and write numbers up to 100 in numerals.  Read and write numbers from 1 to 20 in words.  Identify one more and one less.  Represent and use number bonds within 20.  Represent and use number bonds and related subtraction facts within 20.  Add and subtract one-digit and two digit numbers to 20, including zero.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• put events in time order</li> <li>• order the days of the week</li> <li>• order the months of the year</li> <li>• measure a minute using a stopwatch</li> <li>• tell the time to the hour</li> <li>• tell the time to the half hour</li> <li>• draw the hands on a clock to show o'clock and half past times</li> </ul>	<ul style="list-style-type: none"> <li>• Recognise and correct mistakes when telling the time to the hour and half hour</li> </ul> <p>Sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening).</p> <p>Recognise and use language relating to dates, including days of the week, weeks, months and year.</p> <p>Tell the time to the hour and half past the hour and draw the hands on a clockface to show these times.</p>	<p>Geometry (shape)</p> <p>Recognise the value of coins and notes.</p> <p><b><u>Resources/staff subject knowledge:</u></b>  White Rose  Classroom Secrets  Thinking Toms  NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>  Before  After  Morning  Afternoon  Evening  First  Next  Finally  Today  Yesterday  Tomorrow  Calendar  Hours  Minutes  Seconds  O'clock</p>

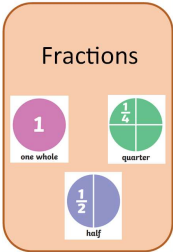
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 2 Summer</b></p> <p>Fractions</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that a whole can be made up of parts</li> <li>that unequal parts are different</li> <li>that a half is written as <math>\frac{1}{2}</math></li> <li>that the top number on a fraction is the numerator</li> <li>that the bottom number on a fraction is the denominator</li> <li>that the denominator is how many equal parts the whole is split into</li> <li>the parts of a fraction need to be equal</li> <li>a quarter is half of a half</li> <li>a third is one of three equal parts</li> <li>that a unit fraction is one in which the whole has been split into equal parts and one of those parts is shaded or highlighted</li> <li>that a non-unit fraction is a fraction where the numerator is greater than 1</li> <li>that <math>\frac{1}{2}</math> is equivalent to <math>\frac{2}{4}</math></li> </ul> <p><b>Fluent in Five</b>            Count in multiples,            Reading and writing numbers            Compare and order numbers            Finding more or less (mentally)            Place value in numbers            Number bonds and known facts (+/-)            Mental addition and subtraction            Written addition and subtraction            Known multiplication and division facts.            Fractions of numbers, types of fractions and equivalent fractions.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>identify whether parts are equal or unequal</li> <li>identify half of a shape</li> <li>find half of a set of objects by sharing</li> <li>recognise a quarter of a shape</li> <li>find a quarter of a set of objects</li> <li>recognise a third of a shape</li> <li>find a third of a set of objects</li> <li>compare unit and non-unit fractions</li> <li>find three quarters of a set of objects, a shape or quantity</li> <li>count in fractions up to a whole</li> </ul>	<ul style="list-style-type: none"> <li>Find the whole from given halves or quarters of amounts</li> <li>Begin to recognise equivalent fractions</li> </ul> <p>Recognise, find, name and write fractions <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity.</p>	<p><a href="#">Geometry (shape)</a></p> <p>Solve multi-step problems involving mass, volume and capacity.</p> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Parts            Whole            Equal            Unequal            Half            Quarter            Third            Unit fraction</p>


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<p><b>Year 2 Summer</b></p> <p>Time</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that the minute hand points to the 3 for quarter past the hour</li> <li>that quarter past is 15 minutes past the hour</li> <li>that the minute hand points to the 9 for quarter to the hour</li> <li>that quarter to is 45 minutes past the hour and 15 minutes to the next hour</li> <li>that each of the twelve sections of a clock corresponds to a 5-minute interval</li> <li>that, when the minute hand is pointing to a number up to 6, it is past the hour</li> <li>that, when the minute hand is pointing to a number past the 6, it is to the hour</li> <li>that there are 60 minutes in one hour</li> <li>that there are 24 hours in a day</li> <li>that each hour appears twice in one day</li> </ul> <p><b>Fluent in Five</b>            Count in multiples,            Reading and writing numbers            Compare and order numbers            Finding more or less (mentally)            Place value in numbers            Number bonds and known facts (+/-)            Mental addition and subtraction            Written addition and subtraction            Known multiplication and division facts.            Fractions of numbers, types of fractions and equivalent fractions.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>tell the time to the hour</li> <li>tell the time to the half hour</li> <li>draw the hands on a clock to show o'clock and half past times</li> <li>tell the time past the hour to 5 minute intervals</li> <li>tell the time to the hour to 5 minute intervals</li> <li>work out lengths of time greater than one hour</li> <li>compare lengths of time</li> </ul>	<ul style="list-style-type: none"> <li>Make links between times (e.g half an hour is the same as two quarter hours)</li> </ul> <p>Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times.</p>	<p><a href="#">Geometry (shape)</a></p> <p>Find <math>\frac{1}{3}</math>, <math>\frac{1}{4}</math>, <math>\frac{2}{4}</math> and <math>\frac{3}{4}</math> of a length, shape, set of objects or quantity.</p> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>  <a href="#">O'clock</a>  <a href="#">Half past</a>  <a href="#">Quarter past</a>  <a href="#">Quarter to</a>  <a href="#">Seconds</a>  <a href="#">Minutes</a>  <a href="#">Hours</a>  <a href="#">5 minute intervals</a></p>




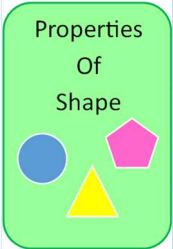
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<b>Year 2 Summer</b>  Statistics  	<b>I know:</b> <ul style="list-style-type: none"> <li>that tally marks are grouped in fives</li> <li>that one tally mark is represented with a  </li> <li>that the fifth tally mark crosses the four before</li> <li>that each block in a block diagram is worth one</li> <li>that a pictogram uses a key that explains what each picture represents</li> <li>that if the key on a pictogram shows that one item represents 2,5 or 10, I can use my knowledge of counting in those to support me</li> <li>that when an object represents more than one in a pictogram, sometimes the whole object might not be used</li> </ul> <b>Fluent in Five</b> Count in multiples, Reading and writing numbers Compare and order numbers Finding more or less (mentally) Place value in numbers Number bonds and known facts (+/-) Mental addition and subtraction Written addition and subtraction Known multiplication and division facts. Fractions of numbers, types of fractions and equivalent fractions.	<b>I know how to:</b> <ul style="list-style-type: none"> <li>draw tally marks, grouping them correctly</li> <li>count up tally marks by counting in 5s and 1s</li> <li>read and interpret tables</li> <li>read and interpret block diagrams</li> <li>transfer data from a table or tally chart to create a block diagram</li> <li>transfer data from a table or tally chart to create a pictogram</li> <li>use a key when reading pictograms</li> </ul>	<ul style="list-style-type: none"> <li>decide when it is more efficient to use a table or a tally chart</li> <li>identify errors on given tables, block diagrams and pictograms</li> </ul> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.  Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.  Ask and answer questions about totalling and comparing categorical data.	<b>Geometry (shape)</b>  Tell the time to quarter past/quarter to.  <b><u>Resources/staff subject knowledge:</u></b> White Rose Classroom Secrets Thinking Toms NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a>  <b><u>Vocabulary</u></b> Tally chart Tally mark Block diagram Pictogram Groups Key Interpret Create Compare Represent

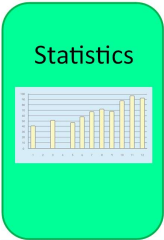
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 2 Summer</b></p> <p>Position and Direction</p> <div style="border: 1px solid blue; border-radius: 15px; padding: 10px; width: fit-content; margin: 10px auto;"> <p style="text-align: center;">Position and Direction</p>  </div>	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that we can describe the movements of a person or object</li> <li>which direction is left and right</li> <li>that the direction of forwards or left, for example, changes, depending on which way a person or object is facing</li> <li>that I can use my knowledge of fractions (halves and quarters) when describing turns</li> <li>that clockwise means the direction that the hands move around a clock</li> <li>that anti-clockwise is the opposite direction that the hands move around a clock</li> <li>that shapes can be turned to create patterns</li> </ul> <p><b>Fluent in Five</b>            Count in multiples,            Reading and writing numbers            Compare and order numbers            Finding more or less (mentally)            Place value in numbers            Number bonds and known facts (+/-)            Mental addition and subtraction            Written addition and subtraction            Known multiplication and division facts.            Fractions of numbers, types of fractions and equivalent fractions.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>describe the movement of an object using mathematical vocabulary</li> <li>make full, half and quarter turns</li> <li>turn clockwise</li> <li>turn anti-clockwise</li> <li>identify the direction that an object is facing after completing turns</li> <li>create shape patterns by turning the shape</li> </ul>	<ul style="list-style-type: none"> <li>Describe movement when considering turns</li> <li>Spot errors in shape patterns where the shapes have been turned</li> </ul> <p>Use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise).</p>	<p><a href="#">Geometry (shape)</a></p> <p>Interpret simple pictograms, tally charts, block diagrams and simple tables</p> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Full turn            Half turn            Quarter turn            Three-quarter turn            Direction            Position            Left            Right            Forwards            Backwards            Pattern</p>

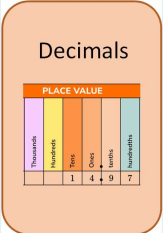
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 3 Summer</b></p> <p>Fractions B</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>When adding fractions where the denominator is the same, you only add the numerators together</li> <li>When subtracting fractions where the denominator is the same, you subtract the smaller numerator from the larger numerator</li> <li>to use my knowledge of number bonds to explore the different ways a whole can be partitioned</li> <li>the denominator is how many equal parts the whole is divided into</li> <li>the numerator is how many parts of the whole there are</li> </ul> <p><b>Fluent in Five</b>            Count in multiples.            Read and write numbers.            Compare and order.            Find 10 or 100 more or less.            Recognise the place value of each digit.            Add and subtract (written method/mentally).            Multiplication and division facts for times tables.            Multiply by 0.            Recognise, find and write fractions.            Equivalent fractions            Add and subtract fraction with the same denominator</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>add fractions where the denominator is the same</li> <li>subtract from a fraction that is less than or equal to 1 whole</li> <li>partition a whole into fractions using number bonds</li> <li>find unit fractions of a set of objects</li> <li>use known division facts to find fractions of amounts</li> <li>find non-unit fractions of a set of objects</li> </ul>	<ul style="list-style-type: none"> <li>Identify and correct errors when adding fractions</li> <li>Partition a whole into fractions with more than two parts</li> <li>Solve problems involving several steps with different fractions</li> <li>reason with fractions of amounts</li> </ul> <p>Add and subtract fractions with the same denominator within one whole.</p> <p>Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators.</p>	<p><a href="#">Geometry (shape)</a></p> <p>Add and subtract units of measure.</p> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Denominator            Numerator            Fraction            Equal parts            Whole            Add            Subtract            Partition</p>

	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 3 Summer</b></p> <p>Money</p> <p>Measurement</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that the amount goes after the symbol '£'</li> <li>that the amount goes before the 'p' for pence</li> <li>that 100p = £1</li> <li>when adding, it is more efficient to add the pounds first and then the pence</li> <li>that change is how much money you get given when you pay more than the item costs</li> </ul> <p><b>Fluent in Five</b>  Count in multiples.  Read and write numbers.  Compare and order.  Find 10 or 100 more or less.  Recognise the place value of each digit.  Add and subtract (written method/mentally).  Multiplication and division facts for times tables.  Multiply by 0.  Recognise, find and write fractions.  Equivalent fractions  Add and subtract fraction with the same denominator</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>convert pounds and pence</li> <li>add money by partitioning</li> <li>subtract money</li> <li>exchange coins to make subtraction easier</li> <li>count on and back to find change</li> </ul>	<ul style="list-style-type: none"> <li>Solve problems that involve several steps</li> <li>Correcting errors involving the addition and subtraction of money</li> <li>Decide whether it is more efficient to count on or count back to find change</li> </ul> <p>Add and subtract amounts of money to give change, using both £ and p in practical contexts.</p>	<p><a href="#">Geometry (shape)</a></p> <p>Add and subtract fractions with the same denominator within one whole.</p> <p><b><u>Resources/staff subject knowledge:</u></b>  White Rose  Classroom Secrets  Thinking Toms  NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>  Coins  Notes  Equivalence  Partitioning  Efficient  Find the difference  Change  Total</p>


	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 3 Summer</b></p> <p>Time</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• Roman numerals to 12</li> <li>• that clock faces sometimes have roman numerals instead of numbers</li> <li>• with Roman numerals, letters are not usually written four times</li> <li>• with Roman numerals, if a lower value digit is written to the left of a higher value digit, it is subtracted and if it is written to the right, it is added</li> <li>• that, when telling the time to the minute, I should identify the 5-minute interval before, then count individual minutes after the multiple of 5</li> <li>• that a digital clock displays the hour first and then minutes past the hour</li> <li>• that am means before 12 noon</li> <li>• that pm means after 12 noon]</li> <li>• how many days are in each month</li> <li>• that there are 7 days in one week</li> <li>• that there are 24 hours in one day</li> </ul> <p><b>Fluent in Five</b> Count in multiples. Read and write numbers. Compare and order. Find 10 or 100 more or less. Recognise the place value of each digit. Add and subtract (written method/mentally). Multiplication and division facts for times tables. Multiply by 0. Recognise, find and write fractions. Equivalent fractions Add and subtract fraction with the same denominator</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• match numbers to Roman numerals</li> <li>• tell the time on a clock with Roman numerals</li> <li>• tell the time to the nearest minute</li> <li>• read the time on a digital clock</li> <li>• describe times using am and pm</li> <li>• compare lengths of time using different units</li> <li>• find durations of time between given start and end times</li> <li>• record durations of time in different ways</li> </ul>	<ul style="list-style-type: none"> <li>• Correcting errors with given problems</li> <li>• Solve problems by comparing duration of time</li> </ul> <p>Tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks.</p>	<p><a href="#">Geometry (shape)</a></p> <p>Add and subtract amounts of money.</p> <p><b><u>Resources/staff subject knowledge:</u></b> White Rose Classroom Secrets Thinking Toms NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b> Seconds Minutes Hours Nearest minute Roman numeral Analogue Digital Days Weeks Months Years</p>

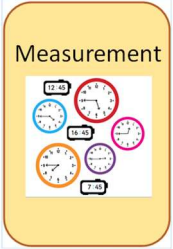
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 3 Summer</b></p> <p>Shape</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• what a quarter, half, three-quarter and whole turns looks like</li> <li>• clockwise and anticlockwise directions</li> <li>• the symbol for a right angle</li> <li>• that a right angle is a way of describing a quarter turn</li> <li>• the that an acute angle is less than a right angle</li> <li>• that an obtuse angle is greater than one but less than two right angles</li> <li>• the terms horizontal and vertical</li> <li>• that parallel lines stay the same distance apart and never meet</li> <li>• that perpendicular lines meet at a right angle</li> <li>• the properties of a range of 2d and 3d shapes</li> </ul> <p><b>Fluent in Five</b>            Count in multiples.            Read and write numbers.            Compare and order.            Find 10 or 100 more or less.            Recognise the place value of each digit.            Add and subtract (written method/mentally).            Multiplication and division facts for times tables.            Multiply by 0.            Recognise, find and write fractions.            Equivalent fractions            Add and subtract fraction with the same denominator</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• make different both clockwise and anticlockwise</li> <li>• make connections between right angles and turns</li> <li>• recognise right angles in a variety of contexts</li> <li>• compare angles</li> <li>• measure in cm and mm</li> <li>• recognise and draw horizontal and vertical lines</li> <li>• identify a shape from a description and to describe a shape for a partner to identify</li> <li>• draw shapes accurately with a ruler when given the measurements</li> <li>• make 3d shapes using modelling materials</li> </ul>	<ul style="list-style-type: none"> <li>• Correcting errors with given problems</li> <li>• Compare shapes, finding similarities and differences</li> </ul> <p>Draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them</p>	<p><a href="#">Geometry (shape)</a></p> <p>Tell and write the time from an analogue clock to the nearest minute.</p> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Quarter turn            Half turn            Three quarter turn            Whole turn            Clockwise            Anti-clockwise            Right angle            Acute            Obtuse            Horizontal            Vertical            Parallel            Perpendicular</p>

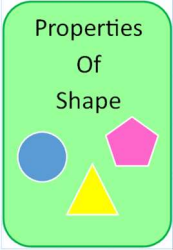
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<b>Year 3 Summer</b>  Statistics  	<b>I know:</b> <ul style="list-style-type: none"> <li>that pictograms can be presented horizontally and vertically</li> <li>that the key on a pictogram tells me the value of each symbol</li> <li>that symbols can be split into halves, quarters or three quarters</li> <li>that bar charts have scales and don't always count in steps of 1</li> <li>that bar charts have to be labelled on the axis</li> <li>that a two way table has information both vertically and horizontally</li> </ul> <b>Fluent in Five</b> Count in multiples. Read and write numbers. Compare and order. Find 10 or 100 more or less. Recognise the place value of each digit. Add and subtract (written method/mentally). Multiplication and division facts for times tables. Multiply by 0. Recognise, find and write fractions. Equivalent fractions Add and subtract fraction with the same denominator	<b>I know how to:</b> <ul style="list-style-type: none"> <li>ask and answer questions about information presented in both horizontal and vertical pictograms</li> <li>construct a pictogram</li> <li>interpret bar charts</li> <li>choose the most appropriate scale for a bar chart</li> <li>carry out a data collection</li> <li>represent data in a table</li> <li>interpret information from a simple two-way table</li> </ul>	<ul style="list-style-type: none"> <li>Interpret pictograms and answer questions that involve more than one step</li> <li>Follow instructions to complete pictograms</li> </ul> Solve one-step and two-step questions using information presented in scaled bar charts and pictograms and tables.	<a href="#">Geometry (shape)</a>  Parallel and perpendicular lines.  <b><u>Resources/staff subject knowledge:</u></b> White Rose Classroom Secrets Thinking Toms NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a>  <b><u>Vocabulary</u></b> Pictogram Horizontal Vertical Symbol Bar chart Scale Axis Labels Interpret Data Collect Represent

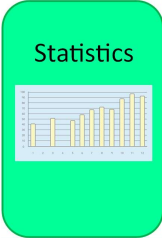
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 4 Summer</b></p> <p>Decimals B</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>to use my knowledge of number bonds to make a whole from hundredths</li> <li>that zero is a place holder</li> <li>the decimal point is used to separate whole numbers from decimals.</li> <li>that numbers with up to 2 decimal places can be partitioned in different ways</li> <li>it is important to consider the values of the digits in place value order, comparing digits in the greatest place value column first</li> <li>that a number with a 5 in the tenths column, although exactly halfway between integers, rounds to the greater integer</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>make 1 whole from hundredths</li> <li>partition numbers with up to 2 decimal places into their place value parts</li> <li>partition numbers with up to 2 decimal places in non-standard ways</li> <li>compare decimals</li> <li>order decimal numbers with up to 2 decimal places</li> <li>round decimals with 1 decimal place to the nearest whole number</li> <li>write halves and quarters as decimals</li> </ul>	<ul style="list-style-type: none"> <li>Solve simple measure and money problems involving fractions and decimals to 2 decimal place</li> <li>order numbers that have the same digits arranged differently</li> </ul> <p>Round decimals with 1 decimal place to the nearest whole number.</p>	<p>Geometry (shape)</p> <p>Recognise that tenths arise from dividing an object into 10 equal parts.</p> <p><b>Resources/staff subject knowledge:</b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b>Vocabulary</b>            Whole            Tenths            Hundredths            Value            Column            Equivalent            Partition            Round            Order</p>

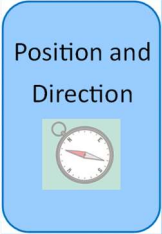


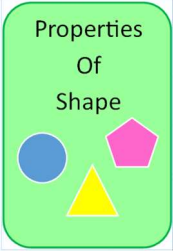
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 4 Summer</b></p> <p>Money</p> <p>Measurement</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that the digits following the decimal point represent part of a pound</li> <li>the digits before the decimal point represent whole pounds</li> <li>that £1 = 100p</li> <li>that methods such as partitioning and number lines can be used to calculation with money</li> <li>that you subtract from the whole to find change</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>write money using decimals</li> <li>convert between pounds and pence</li> <li>compare amounts of money</li> <li>round amounts to the nearest 10p to estimate totals or differences</li> <li>add and subtract money</li> <li>solve money problems using all four operations</li> </ul>	<ul style="list-style-type: none"> <li>Proving statements and justifying answers</li> <li>Compare using more than one step</li> </ul> <p>Estimate, compare and calculate different measures, including money in pounds and pence.</p>	<p>Geometry (shape)</p> <p>Round decimals with 1 decimal place to the nearest whole number.</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Digit            Decimal point            Convert            Pounds            Pence            Estimate</p>

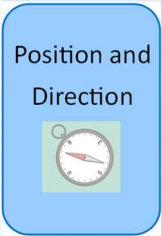
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 4 Summer</b></p> <p>Time</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• how many days are in each month</li> <li>• that there are 60 seconds in a minute</li> <li>• that there are 60 minutes in an hour</li> <li>• to use my understanding of the 6 times-table to find related number facts linked to time</li> <li>• that an analogue clock does not usually show am or pm</li> <li>• that to convert pm times between 1 pm and 11:59 pm into 24-hour clock times, I add 12 hours to the time</li> <li>• that 24-hour clock times are always shown with four digits</li> <li>• if the hour only has one digit, then a zero is placed at the start</li> <li>• that a new day starts at midnight</li> <li>• that midnight is presented by 00:00 on a digital clock</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• use multiplicative reasoning and related number facts to convert and compare times</li> <li>• convert between analogue and 12-hour digital times</li> <li>• calculate durations of time represented on analogue and 12-hour digital clocks</li> <li>• convert times to 24-hour clock times</li> <li>• convert times from 24-hour clock times</li> </ul>	<ul style="list-style-type: none"> <li>• Proving statements and justifying answers</li> <li>• Problems that involve working systematically with more than one answer</li> </ul> <p>Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days</p>	<p><a href="#">Geometry (shape)</a></p> <p>Estimate, compare and calculate different measures, including money in pounds and pence.</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Seconds            Minutes            Hours            Days            Months            Year            Analogue            Digital            24 hour clock</p>

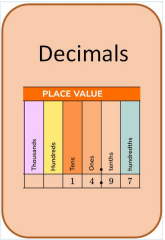
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<b>Year 4 Summer</b>  Shape  	<b>I know:</b> <ul style="list-style-type: none"> <li>that an acute angle is less than a right angle</li> <li>that an obtuse angle is greater than one but less than two right angles</li> <li>that a triangle is a closed, 2-D shape with three straight sides</li> <li>if all three sides have different lengths, the triangle is scalene</li> <li>if two sides are the same length, the triangle is isosceles</li> <li>if all three sides are equal, the triangle is equilateral</li> <li>that the number of equal angles in a triangle is the same as the number of equal sides</li> <li>that 'gon' means 'angled'</li> <li>that in a regular polygon, the sides are all equal in length and the angles are all equal in size</li> </ul> <b>Fluent in Five</b> Count in multiples Read and write numbers Compare and order numbers Find 10, 100 more or less. Place Value in numbers. Negative numbers. Number bonds and known facts Mental addition and subtraction Multiplication facts and division facts Fractions of numbers Decimals Equivalent fractions. Written addition and subtraction Calculations with fractions	<b>I know how to:</b> <ul style="list-style-type: none"> <li>compare and order angles</li> <li>compare two angles of the same type</li> <li>identify quadrilaterals from a selection of shapes</li> <li>distinguish between a trapezium, rhombus, parallelogram, square and rectangle</li> <li>find lines of symmetry in any direction</li> <li>complete a symmetrical figure</li> </ul>	<ul style="list-style-type: none"> <li>Prove/disprove statements around angles and symmetry</li> </ul> Identify acute and obtuse angles and compare and order angles up to two right angles by size.	<b>Geometry (shape).</b>  Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days.  <b><u>Resources/staff subject knowledge:</u></b> White Rose Classroom Secrets Thinking Toms NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a>  <b><u>Vocabulary</u></b> Acute Obtuse Scalene Isosceles Equilateral Equal Polygon Quadrilateral

	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 4 Summer</b></p> <p>Statistics</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that pictograms, bar charts and tables are ways of representing data</li> <li>that temperature can change all the time so representing it as a bar chart or pictogram would not be appropriate</li> <li>that it is important to label the axes on a line graph</li> <li>to use a ruler when drawing the lines between points on a line graph</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>select a scale that will be the most appropriate when drawing bar charts</li> <li>choose which key will be the most appropriate for a pictogram</li> <li>ask questions about the data in pictograms, bar charts and tables</li> <li>draw line graphs</li> <li>accurately plot data on a line graph</li> <li>choose appropriate scales for a line graph</li> </ul>	<ul style="list-style-type: none"> <li>Use the clues to complete the line graph.</li> </ul> <p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <p>Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs</p>	<p><b>Geometry (shape).</b></p> <p>Identify acute and obtuse angles and compare and order angles up to two right angles by size.</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Variable            Continuous data            Line graph            Axes</p>

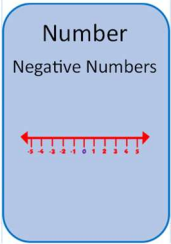
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 4 Summer</b></p> <p>Position and Direction</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• that the x-axis is horizontal</li> <li>• that the y-axis is vertical</li> <li>• that the point where the axes meet has the coordinates (0, 0)</li> <li>• that the numbers increase on both axes</li> <li>• that it is important to read from the x-axis first</li> <li>• that points are plotted on the lines and not in the spaces between the lines</li> <li>• that the word “translate” in this context means “move”</li> <li>• that the points can only move along grid lines</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• describe position using coordinates</li> <li>• plot coordinates</li> <li>• draw 2d shapes on a grid</li> <li>• translate points and shapes on a coordinate grid</li> <li>• describe the translation that has taken place when given a pair of points or shapes</li> <li>• describe translations between shapes</li> </ul>	<ul style="list-style-type: none"> <li>• Explain the mistakes on a given problem</li> <li>• Complete line graphs based on given information</li> </ul> <p>Describe movements between positions as translations of a given unit to the left/right and up/down</p>	<p><u>Geometry (shape).</u></p> <p>Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            x-axis            y-axis            Coordinates            Translate            Grid lines</p>

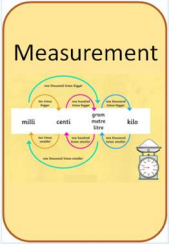
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 5 Summer</b></p> <p>Shape</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that the unit of measure for a turn is a degree</li> <li>what the degree symbol is</li> <li>that there are 90 degrees in a quarter turn, 180 degrees in a half turn, 275 degrees in a <math>\frac{3}{4}</math> turn and 360 degrees in a whole turn</li> <li>that a reflex angle is greater than two right angles/straight line but smaller than a full turn.</li> <li>how to use a protractor to measure an angle and to draw an angle</li> <li>what a rectilinear shape is</li> <li>what a compound rectilinear shape is</li> <li>that in an irregular polygon not all sides are equal in length; not all angles are equal</li> <li>what a net of a 3-D shape is</li> <li>that 3-D shapes are described by their faces, vertices and edges.</li> <li>The names of more complex 3-D shapes</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>understand and use degrees</li> <li>classify angles</li> <li>Measure angles up to 180</li> <li>estimate angles</li> <li>calculate angles around a point</li> <li>calculate angles on a straight line</li> <li>calculate lengths and angles in shapes</li> <li>identify regular and irregular polygons</li> <li>identify 3-D shapes</li> </ul>	<ul style="list-style-type: none"> <li>Prove and disprove statements around angles, polygons, perimeter and 3D shapes.</li> <li>Comparison of methods and finding alternatives processes of calculating angles and missing numbers in angles</li> <li>Solve simple missing number problems in perimeter and angles</li> </ul>	<p>Geometry (shape).</p> <p>Solve comparison, sum and difference problems using information presented in a line graph.</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Protractor            3-Dimensional            Reflex angle            interior angle</p>

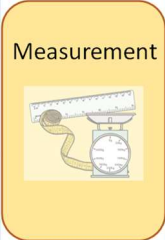
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 5 Summer</b></p> <p>Position and Direction</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>that shapes can be translated to the left and to the right</li> <li>that all the points of a shape will be translated in the same direction</li> <li>that reflection lines denote symmetry</li> <li>that 2D shapes may have more than one line of symmetry</li> <li>that a grid can have more than one quadrant</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>read and plot co-ordinates</li> <li>problem solve with coordinates</li> <li>translate a 2D shape</li> <li>translate a 2D shape with coordinates</li> <li>identify lines of symmetry</li> <li>reflect a point in a horizontal or vertical axis</li> <li>how to identify missing co-ordinates in a shape</li> </ul>	<ul style="list-style-type: none"> <li>Explain the mistakes in a given problem.</li> <li>Plot the coordinates in order to solve a given problem.</li> <li>Use knowledge of shape to find missing co-ordinate without a grid.</li> <li>Use knowledge of symmetry to solve multiple solution problems.</li> <li>Use knowledge of reflection to find a mirror line without a grid</li> </ul>	<p>Geometry (shape).</p> <p>Solve simple missing number problems in perimeter and angles</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Reflection            Quadrant</p>

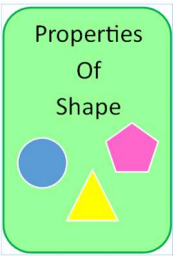
	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 5 Summer</b></p> <p>Decimals</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>to use my knowledge of tenths and hundredths to make number bonds to 10, 100 and 1000</li> <li>to flexibly partition decimals up to 3dp</li> <li>to use my knowledge of place value columns when adding and subtracting decimals</li> <li>that the order of a sequence is a pattern of increasing/decreasing terms</li> <li>that a Gottegno chart can be used to show that dividing by 10 and <math>1/10^{\text{th}}</math> of the size is the same</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b>            use known facts to add and subtract decimals within 1</p> <p>Find complements to 1</p> <p>add and subtract decimals across 1</p> <p>add decimals with the same and different numbers of decimal places</p> <p>subtract decimals with the same and different numbers of decimal places</p> <p>use efficient strategies for adding and subtracting decimals</p> <p>multiply/divide decimals by 10,100 and 1000</p>	<ul style="list-style-type: none"> <li>Solve missing number problems using partitioning of decimals</li> <li>Rectify mistakes in addition and subtraction of decimals</li> <li>Solve problems relating to decimals in the practical contexts of measure and money</li> </ul>	<p>Geometry (shape).</p> <p>Plot the coordinates in order to solve a given problem.</p> <p><b>Resources/staff subject knowledge:</b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b>Vocabulary</b>            Sequence            Increasing/decreasing            Gottegno chart</p>

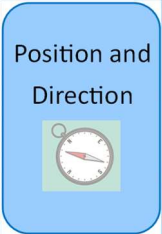


	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 5 Summer</b></p> <p>Negative Numbers</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• that numbers below 0 are negative</li> <li>• numbers above 0 are called positive numbers</li> <li>• that temperature often falls into negative numbers</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• Understand negative numbers</li> <li>• Count through zero in 1s</li> <li>• Count through zero in multiples</li> <li>• Compare and order negative numbers</li> <li>• Find the difference between negative numbers</li> </ul>	<ul style="list-style-type: none"> <li>• Calculating the difference between negative and positive numbers.</li> </ul>	<p><u>Geometry (shape).</u></p> <p>Use efficient strategies for adding and subtracting decimals</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Negative/positive number            Counting through zero</p>

	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 5 Summer</b></p> <p>Converting Units</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• 1kg = 1000g</li> <li>• 1l=1000millilitres</li> <li>• 1m = 100cm</li> <li>• 1cm=10mm</li> <li>• To convert units of measure using my knowledge place value x10x100x1000</li> <li>• to use bar models and place value grids to support conversions</li> <li>• that metric and imperial are different systems of measurement.</li> <li>• that seconds/minutes/hours are units of measure for time</li> <li>• there are 14 days in a fortnight</li> <li>• there are 24 hrs in a day</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• Convert grams/metres/litres to kilograms/kilometres/millilitres.</li> <li>• Convert metric and imperial units</li> <li>• Convert units of time</li> <li>• Calculate with timetables</li> </ul>	<ul style="list-style-type: none"> <li>• Proving statements with real life problems</li> <li>• Multi step problems</li> <li>• Using timetables to calculate difference of time</li> </ul>	<p><u>Geometry (shape).</u></p> <p>Find the difference between negative numbers</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool</a>  <a href="#">  NCETM</a></p> <p><b><u>Vocabulary</u></b>            Kilograms            Kilometres            Millimetres            Millilitres            Convert            Units of length</p>

	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 5 Summer</b></p> <p>Measurement - Volume</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• how the words cubic/cuboid relate to cubes and cube numbers</li> <li>• to calculate cubic volume using manipulatives and a formula</li> <li>• to compare cubic volume using visual images and manipulatives</li> <li>• to estimate volume using manipulatives and images</li> <li>• That capacity relates to how much a vessel can hold and volume is how much is actually in the vessel.</li> </ul> <p><b>Fluent in Five</b>            Count in multiples            Read and write numbers            Compare and order numbers            Find 10, 100 more or less.            Place Value in numbers.            Negative numbers.            Number bonds and known facts            Mental addition and subtraction            Multiplication facts and division facts            Fractions of numbers            Decimals            Equivalent fractions.            Written addition and subtraction            Calculations with fractions</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• measure in cubic centimetres</li> <li>• compare volume</li> <li>• estimate volume</li> <li>• estimate capacity</li> </ul>	<ul style="list-style-type: none"> <li>• practical contexts to explore concepts of volume and capacity</li> <li>• Prove it questions</li> <li>• Estimate, compare and calculate measure.</li> </ul>	<p>Geometry (shape).</p> <p>Convert grams/metres/litres to kilograms/kilometres/millilitres.</p> <hr/> <p><b><u>Resources/staff subject knowledge:</u></b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b><u>Vocabulary</u></b>            Cuboid            Cubic            Capacity            volume</p>

	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<p><b>Year 6 Summer</b></p> <p>Shape</p> 	<p><b>I know:</b></p> <ul style="list-style-type: none"> <li>• How to measure angles</li> <li>• Angles can be classified.</li> <li>• Angles on a straight line add up to 180°</li> <li>• Angles around a point add up to 360°.</li> <li>• Vertically opposite angles are equal.</li> <li>• interior angles of a triangle always sum to 180°.</li> <li>• How to calculate missing angles in different types of triangles.</li> <li>• How to measure and calculate the angles in a quadrilateral.</li> <li>• How to measure and calculate the angles in polygons.</li> <li>• To illustrate and name parts of a circle.</li> <li>• To accurately draw shapes when given specific dimensions.</li> <li>• To make a 3-D shape using knowledge of the 2-D shapes that make up its faces.</li> </ul> <p><b>Fluent in Five</b>            Counting in multiples            Reading and writing numbers            Finding 10, 100 more or less            Place value in numbers            Negative numbers            Mental addition and subtraction            Written addition and subtraction            Known multiplication and division facts            Squares and cubes            Order of operations            Fractions of numbers            Decimals            Types of fractions            Calculating with fractions.            Percentage of numbers.</p>	<p><b>I know how to:</b></p> <ul style="list-style-type: none"> <li>• Draw given angles, and measure them in degrees °</li> <li>• Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.</li> </ul>	<p>Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons.</p>	<p>Geometry (shape).</p> <hr/> <p><b>Resources/staff subject knowledge:</b>            White Rose            Classroom Secrets            Thinking Toms            NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a></p> <p><b>Vocabulary</b>            Angles            Acute            Obtuse            Reflex            Radius            Diameter            Circumference            Nets</p>

	<b>Fluency Declarative/substantive</b>	<b>Methods Procedural/disciplinary</b>	<b>Reasoning and problem solving Conditional</b>	<b>Retrieval</b>
<b>Year 6 Summer</b>  Position and direction  	<b>I know:</b> <ul style="list-style-type: none"> <li>To plot coordinates in the first quadrant, where both the x- and y-coordinates are positive.</li> <li>How to read and plot points in four quadrants.</li> <li>To solve problems with coordinates.</li> <li>To translate points and shapes on a coordinate grid.</li> <li>To make reflections across all four quadrants.</li> </ul> <b>Fluent in Five</b> Counting in multiples Reading and writing numbers Finding 10, 100 more or less Place value in numbers Negative numbers Mental addition and subtraction Written addition and subtraction Known multiplication and division facts Squares and cubes Order of operations Fractions of numbers Decimals Types of fractions Calculating with fractions. Percentage of numbers.	<b>I know how to:</b>  Describe positions on the full coordinate grid (all four quadrants)  Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	To Solve problems with coordinates	Geometry (shape).  <b>Resources/staff subject knowledge:</b> White Rose Classroom Secrets Thinking Toms NCETM - <a href="#">National Curriculum Resource Tool   NCETM</a>  <b>Vocabulary</b> Coordinates Horizontal Vertical Quadrants Translations Reflections