



St. Patrick's Catholic Primary School

Maths Curriculum

Reception



Week 1	Week 2	Week 3		Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<p>Getting to Know You</p> <p>Opportunities for settling in, introducing the areas of provision and getting to know the children.</p> <p>Key times of day, class routines. Exploring the continuous provision inside and out. Where do things belong? Positional language.</p>			Phase	Just Like Me!			It's Me 1 2 3!			Light and Dark		
			Number	Match and Sort Compare Amounts			Representing 1, 2 & 3 Comparing 1, 2 & 3 Composition of 1, 2 & 3			Representing Numbers to 5. One More and Less.		
			Measure, Shape and Spatial Thinking	Compare Size, Mass & Capacity Exploring Pattern			Circles and Triangles Positional Language			Shapes with 4 Sides. Time		



	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9
Phase	Alive in 5!			Growing 6, 7, 8			Building 9 & 10		
Number	Introducing zero Comparing numbers to 5 Composition of 4 & 5			6, 7 & 8 Combining 2 amounts Making pairs			Counting to 9 & 10 Comparing numbers to 10 Bonds to 10		



Measure, Shape and Spatial Thinking	Compare Mass (2) Compare Capacity (2)	Length & Height Time	3d-shapes Spatial Awareness Patterns
-------------------------------------	--	-------------------------	--

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Phase	To 20 and Beyond			First Then Now			Find my Pattern			On the Move		



<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Number</p>	<p>Building Numbers Beyond 10 Counting Patterns Beyond 10</p>	<p>Adding More Taking Away</p>	<p>Doubling Sharing & Grouping Even & Odd</p>	<p>Deepening Understanding Patterns and Relationships</p>
<p style="writing-mode: vertical-rl; transform: rotate(180deg);">Spatial Thinking</p>	<p>Spatial Reasoning (1) Match, Rotate, Manipulate</p>	<p>Spatial Reasoning (2) Compose and Decompose</p>	<p>Spatial Reasoning (3) Visualise and Build</p>	<p>Spatial Reasoning (4) Mapping</p>



Mathematics

Intent - Mathematics involves developing good number sense to solve problems in practical situations and everyday life. Practising visualisation to support understanding and problem solving. The opportunity to explore and experience shapes, space and measures in everyday context. The aim for each learner is to become a confident mathematician.

Number

ELG: Have a deep understanding of number to 10, including the compositions of each numbers, subitise up to 5, Automatically recall number bonds up to 5 and some number bonds to 10 including double facts

3 & 4 year olds

Advent	Lent	Pentecost
<ul style="list-style-type: none"> To know how to mark make and ascribe some concept of number to the marks (attempts at digits from the environment, making dots, lines etc). To know how to experiment with their own symbols and marks as well as numerals. To know how to sort objects using one simple criteria. 	<ul style="list-style-type: none"> To know and show understanding of conservation. To know how to subitise showing a fast recognition of up to 3 objects, without having to count them individually ('subitising'). To know how to link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. To know how to solve real world mathematical problems with numbers up to 5. To know, talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs' etc. To know how to begin to describe a sequence of events, real or fictional, using words such as 'first', 'then...' 	<ul style="list-style-type: none"> To know when two small groups have the same number of objects. To know how to identify numerals in the environment. To know how to extend and create ABAB patterns – stick, leaf, stick, leaf. To know how to notice and correct an error in a repeating pattern.



Numerical Patterns

ELG: Verbally count beyond 20, recognising the patterns of the counting system, compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity, explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

3 & 4 year olds

Autumn	Autumn	Autumn
<ul style="list-style-type: none"> To know how to recite some number names in sequence (not necessarily understand at this stage). To know to bring one or two objects when an adult requests. To know and show an understanding of simple comparisons like 'more'. 	<ul style="list-style-type: none"> To know how to recite some number names in sequence (not necessarily understand at this stage). To know to bring one or two objects when an adult requests. To know and show an understanding of simple comparisons like 'more'. 	<ul style="list-style-type: none"> To know how to recite some number names in sequence (not necessarily understand at this stage). To know to bring one or two objects when an adult requests. To know and show an understanding of simple comparisons like 'more'.

Reception

Autumn	Autumn	Autumn
<ul style="list-style-type: none"> To know how to count up to three or four objects by saying one number name for each item. To know how to count objects to 10 and begin to count beyond 10. To know how to count out up to six objects from a larger group. To know how to select the correct numeral to represent 1 to 5, then 1 to 10 objects. 	<ul style="list-style-type: none"> To know numerals and be able to represent them for 1 to 5, then 1 to 10 objects. Then 1-20 To know how to begin to use 'teens' to count beyond 10. To know how to count an irregular arrangement of up to ten objects. To know how to find one more or one less from a group of up to five objects, then ten objects. To know how to estimate how many objects and check by counting all of them. To know how to use the language of 'more' and 'fewer' to compare two sets of objects. To know all manipulations of the numbers 5, 6, 7 etc. To know how to count objects, actions and sounds. 	<p>ELG: Numerical Patterns</p> <p><i>Children at the expected level of development will:</i></p> <ul style="list-style-type: none"> To know how to verbally count beyond 20, recognising the pattern of the counting system; To know how to compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity;



- | | |
|--|---|
| <ul style="list-style-type: none">• To know to link the number symbol (numeral) with its cardinal number value.• To know how to count beyond ten.• To know how to compare numbers.• To know 'one more than/one less than' and the relationship between consecutive numbers.• Continue, copy and create repeating patterns. | <ul style="list-style-type: none">• To know patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally. |
|--|---|



Shape, Space and Measure		
3 & 4 year olds		
Advent	Lent	Pentecost
<ul style="list-style-type: none"> To know how to start to fit shapes into board puzzles or shape sorters. To know how to begin to build using simple blocks. To know how to fill and empty a container. To know how to show some understanding of 'now' and 'next'. To know to see some shapes in pictures and can start to make pictures using shapes. To know how to use small world play to experiment with size, shape, differences and similarities. To know and understand position through words alone – for example, "The bag is under the table," – with no pointing. To know how to talk about the routine of the day and use language like 'before' and 'after'. 	<ul style="list-style-type: none"> To know how to ask questions about the routine and what is happening next. To know how to use small world play to experiment with size, shape, differences and similarities. To know how to talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners'; 'straight', 'flat', 'round'. To know and understand position through words alone – for example, "The bag is under the table," – with no pointing. To know and describe a familiar route. To know and discuss routes and locations, using words like 'in front of' and 'behind'. To know and make comparisons between objects relating to size, length, weight and capacity. To know and select shapes appropriately: flat surfaces for building, a triangular prism for a roof etc. To know how to combine shapes to make new ones - an arch, a bigger triangle etc 	<ul style="list-style-type: none"> To know how to talk about the routine of the day and use language like 'before' and 'after'. To know how to use comparative language like 'taller', 'shorter', 'the same'. To know how to start to identify shapes in the environment. To know how to start to find appropriate shapes for certain tasks. To know how to ask questions about my observations of differences and similarities. To know how to start to make more meaningful pictures, patterns and arrangements with shapes.



Year 1	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)				Number: Addition and Subtraction (within 10)				Geometry: Shape	Number: Place Value (within 20)		
Spring	Consolidation	Number: Addition and Subtraction (within 20)			Number: Place Value (within 50)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Consolidation	Number: Multiplication and Division			Number: Fractions		Geometry: Position and Direction	Number: Place Value (within 100)		Measurement: Money	Measurement: Time	



Subject area	Knowledge Children will know how to:	Vocab
<p>Year 1 Advent Term Number-Place Value within 10</p>	<ul style="list-style-type: none"> • Sort, count and represent objects up to 10. • Count, read and write numbers forwards and backwards from any number 0 to 10 (numerals and words). • Count one more or one less from any given number 0 to 10. • Compare groups (using language such as equal, more or less than) • Recognise <, > and = symbols to compare numbers. • Order groups of objects and numbers to 10. • Use ordinal numbers (1st, 2nd, 3rd ...) 	<p>number numeral zero one, two, three ... twenty teens numbers, eleven, twelve ... twenty twenty-one, twenty-two ... one hundred none how many ...? count, count (up) to, count on (from, to), count back (from, to) forwards backwards count in ones, twos, fives, tens equal to equivalent to is the same as more, less most, least many odd, even multiple of few pattern pair ones tens digit the same number as, as many as more, larger, bigger, greater fewer, smaller, less fewest, smallest, least most, biggest, largest, greatest one more, ten more one less, ten less equal to one more, ten more one less, ten less compare order size first, second, third... twentieth last, last but one before, after next between half- way between above, below</p>



<p>Year 1 Advent Term Number- addition and subtraction within 10</p>	<p>Addition</p> <ul style="list-style-type: none"> • Understand that a number can be split into parts (part- whole model). • Recognise the addition symbol +. • Recognise the fact families for addition bonds to 10. • Know how to find a missing number (part) within addition. • Compare addition number sentences up to 10 using symbols (<,> or =). <p>Subtraction</p> <ul style="list-style-type: none"> • Find how many left by taking away within 10. • Recognise the subtraction symbol -. • Find a missing number (part) within subtraction up to 10. • Compare subtraction and addition number sentences up to 10 using symbols (<,> or=). 	<p>addition add, more, and make, sum, total altogether double near double half, halve one more, two more ... ten more subtract take away how many are left/left over? how many have gone? one less, two less, ten less ... difference between equals is the same as number bonds/pairs missing number</p>
<p>Year 1 Advent Term Geometry- Shape</p>	<ul style="list-style-type: none"> • Recognise and name 2D shapes. • Sort 2D shapes. • Recognise and name 3D shapes. • Sort 3D shapes. • Make patterns with 3D and 2D shapes. 	<p>shape, pattern flat curved, straight round hollow, solid sort make, build, draw size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern, pattern, repeating pattern match 2-D shape corner, side point, pointed rectangle (including square) circle triangle 3-D shape face, edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder</p>
<p>Year 1 Advent Term Number – Place Value within 20</p>	<ul style="list-style-type: none"> • Count, read and write numbers forwards and backwards to 20 (in words and numerals). • Represent numbers to 20 using tens and ones. • Compare groups of objects and numbers to 20. 	<p>As above</p>



	<ul style="list-style-type: none"> • Order groups of objects and numbers to 20. • Count one more or one less from any given number 0 to 20. • Compare groups (using language such as equal, more or less than) to 20. • Recognise <, > and = symbols to compare numbers. • Count in 2s 	
<p>Year 1 Lent Term Number: Addition and subtraction within 20</p>	<ul style="list-style-type: none"> • Addition • Add by counting on, within 20. • Add by making 10. • Recognise the fact families for addition bonds to 20. • Know how to find a missing number (part) within addition. • Compare addition number sentences up to 20 using symbols (<,> or =). • Subtraction • Find how many left by taking away within 20. • Know how to find a missing number (part) within subtraction up to 20. • Compare subtraction and addition number sentences up to 20 using symbols (<,> or =). 	<p>As above</p>
<p>Year 1 Lent Term Number: Place value within 50</p>	<ul style="list-style-type: none"> • Count, read and write numbers forwards and backwards to 50. • Represent numbers to 50 using tens and ones. • Compare groups of objects and numbers to 50. • Order groups of objects and numbers to 50. • Count one more or one less from any given number 0 to 50. • Compare groups (using language such as equal, more or less than) to 50. • Recognise <, > and = symbols to compare numbers to 50. • Count in 5s 	<p>As above</p>



<p>Year 1 Lent Term Measurement: Length and height</p>	<ul style="list-style-type: none"> • Understand the language of length such as long, longer, short, shorter, tall and taller. • Understand that height is a type of length • Compare lengths and heights using non-standard units, such as cubes, hands and straws to measure length and height • Begin to measure length and height with a ruler (in cm). 	<p>centimetre, metre length, height, width, depth long, short, tall high, low wide, narrow thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on far, near, close ruler metre stick</p>
<p>Year 1 Lent Term Measurement: Weight and Volume</p>	<ul style="list-style-type: none"> • Weight • Describe objects using vocabulary such as heavy, light, heavier than, lighter than • Use the scales to compare weight and mass of objects • Measure the mass of an object using non-standard units such as cubes and bricks • Compare weight and mass of objects using language such as 'heavier', 'lighter' and 'equal to'. • Volume • Compare the volume in a container by describing whether it is 'full', 'empty' or 'nearly empty'. • Begin to measure capacity of different containers using non-standard units of measure such as cups full or spoonful. • Compare the capacity in a container by using non-standard units of measure. 	<p>kilogram, half kilogram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales</p>
<p>Year 1 Pentecost Term Number: Multiplication and division</p>	<ul style="list-style-type: none"> • Count in 2s, 5s and 10s • Recognise equal groups using pictorial and abstract resources. • Make equal groups using pictorial and abstract resources. • Add equal groups to make repeated addition sentences. • Make arrays by making equal groups and building them up in columns or rows. • Explore doubling numbers up to 20. • Make groups of an equal amount from given total. 	<p>multiplication multiply multiplied by multiple division dividing grouping sharing doubling halving array number patterns</p>



	<ul style="list-style-type: none"> Explore sharing equally as a model of division using concrete and pictorial representations 	
<p>Year 1 Pentecost Term Number: Fractions</p>	<ul style="list-style-type: none"> Explore finding a half using shapes or objects. Know how to find half of a small quantity of concrete or pictorial representation. Explore finding a quarter using shapes or objects. Find a quarter of a small quantity of concrete or pictorial representation. 	<p>fraction equal part equal grouping equal sharing parts of a whole half one of two equal parts quarter one of four equal parts</p>
<p>Year 1 Pentecost Term Geometry: Position and direction</p>	<ul style="list-style-type: none"> Describe turns such as 'full', 'half', 'quarter' and 'three- quarter' made by shapes/objects. Describe direction of objects and shapes from different starting points such as 'left', 'right' 'forwards' and 'backwards'. Know how to describe positions of objects and shapes from different starting points such as 'top', 'in between', 'bottom', 'above' and 'below'. 	<p>position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey left, right up, down forwards, backwards, sideways across next to, close, near, far along through to, from, towards, away from movement slide roll turn stretch, bend whole turn, half turn, quarter turn, three-quarter turn</p>
<p>Year 1 Pentecost Term Number: Place value within 100</p>	<ul style="list-style-type: none"> Count, read and write numbers forwards and backwards to 100. Represent numbers to 100 using tens and ones. Compare groups of objects and numbers to 100. Order groups of objects and numbers to 100. Compare groups (using language such as equal, more or less than) to 100. Recognise <, > and = symbols to compare numbers to 100. Count one more or one less from any given number 0 to 100 	<p>As above</p>



<p>Year 1 Pentecost Term Measurement: Money</p>	<ul style="list-style-type: none"> • Recognise and know the value of different coins. • Understand the equivalent values of coins. • Recognise and know the value of different notes. • Understand the equivalent values of notes. • Know how to count in coins. • Know how to compare amounts of money. 	<p>money coin penny, pence, pound price, cost buy, sell spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much ...? how many ...? Total</p>
<p>Year 1 Pentecost Term Measurement: Time</p>	<ul style="list-style-type: none"> • Describe and sort events in order of time such as 'before' and 'after' or 'morning', 'afternoon' an 'evening'. • Name the 7 days in a week. • Talk about events using 'today', 'yesterday' and 'tomorrow'. • Name the months of the year. • Tell the time to the hour using an analogue clock. • Tell the time to the half hour using an analogue clock. • Tell the difference between seconds, minutes and hours. • Compare amounts of time such as 'faster', 'slower', 'earlier' and 'later'. 	<p>days of the week, Monday, Tuesday ... months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago? how long will it be to ...? how long will it take to ...? how often? always, never, often, sometimes</p>



Year 2	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value			Number: Addition and Subtraction					Measurement: Money	Number: Multiplication and Division		Consolidation
Spring	Number: Multiplication and Division				Statistics		Geometry: Properties of Shape		Number: Fractions			
Summer	Measurement: Length and Height		Geometry: Position and Direction		Consolidation and problem solving		Measurement: Time		Measurement: Mass, Capacity and Temperature			Consolidation



Subject area	Knowledge Children will know how to :	Vocab
<p>Year 2 Advent Term Number and Place Value</p>	<ul style="list-style-type: none"> • Count forwards and backwards within 20. • Recognise tens and ones within 20. • Count forwards and backwards within 50. • Recognise tens and ones within 50. • Compare numbers within 50 using knowledge of tens and ones. • Count objects to 100 and read and write numbers in numerals and words • Represent numbers to 100 using tens and ones. • Use a part-whole model to represent tens and ones. • Write addition number sentences showing the partition of tens and ones. • Use a place value chart to represent tens and ones using different pictorial representation such as cubes and rods and counters. • Compare objects using knowledge of more or less using symbols (<,> and =). • Compare numbers using knowledge of more or less tens or ones using symbols (<,> and =). • Order objects and numbers using knowledge of more or less tens and ones. • Count in 2s, 5s and 10s forwards and backwards from any number. • Count up to 100 forwards and backwards. 	<p>ones tens, hundreds digit one-, two- or three-digit number place, place value stands for, represents exchange the same number as, as many as more, larger, bigger, greater fewer, smaller, less fewest, smallest, least most, biggest, largest, greatest one more, ten more one less, ten less equal to compare order size first, second, third ... twentieth twenty-first, twenty-second ... last, last but one before, after next between halfway between above, below</p>
<p>Year 2 Advent Term</p>	<p>Addition</p> <ul style="list-style-type: none"> • Recognise fact families for addition bonds to 20. • Recognise related facts for tens bonds to 100. 	<p>addition add, more, and make, sum, total altogether double near</p>



<p>Number: addition and subtraction</p>	<ul style="list-style-type: none"> • Compare addition number sentences using symbols (<, > or =). • Add 1 and 10 more to numbers up to 100. • Add a 2-digit and 1-digit number crossing ten by exchanging. • Add two 2-digit numbers not crossing ten by adding ones and adding tens. • Add two 2-digit numbers crossing ten by adding ones and then adding tens. • Add three 1- digit numbers. <p>Subtraction</p> <ul style="list-style-type: none"> • Recognise fact families for subtraction bonds to 20. • Subtract 1 and less to numbers up to 100. • Compare subtraction number sentences using symbols (<, > or =). • Subtract a 1- digit number from a 2-digit number crossing ten by exchanging. • Subtract a 2- digit number from a 2-digit number not crossing ten. • Subtract a 2-digit number from a 2-digit number crossing ten by subtracting ones and tens. • Find and make number bonds up to 100 using tens and ones. <p>Inverse</p> <ul style="list-style-type: none"> • Use the inverse to check calculations for addition and subtraction calculations. • Use a bar model to find missing numbers using knowledge of whole numbers and parts. • Find missing numbers in addition and subtraction sentences using inverse operations. 	<p>double half, halve one more, two more ... ten more ... one hundred more difference between equals is the same as number bonds/pairs/facts tens boundary</p>
<p>Year 2 Advent Term Measurement: Money</p>	<ul style="list-style-type: none"> • Recognise coins and notes using the correct unit of measure (p or £). • Count money in pence adding and counting on in 1s, 2s, 5s and 10s. Count money in pounds in notes and coins by adding or counting on. • Count money with combination of notes and coins by adding or counting on. • Select money to make an amount in pence and pounds. • Make the same amount of money using different combinations of coins or notes. • Compare money using the more than, less than or equal to symbols (<, > or =). 	<p>money coin penny, pence, pound price, cost buy, bought, sell, sold spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much ...? how many ...? total</p>



	<ul style="list-style-type: none"> • Find the total for an amount of coins using the four operations (addition, subtraction, multiplication and division). • Find the difference of an amount of money using subtraction in a practical context. • Find change for an amount of money using subtraction in a practical context. • Answer two-step money problems using the four operations (addition, subtraction, multiplication and division). 	
<p>Year 2 Advent and Lent term Number: Multiplication and division</p>	<p>Multiplication</p> <ul style="list-style-type: none"> • Recognise equal groups using pictorial and abstract resources. • Make equal groups using pictorial and abstract resources. • Add equal groups to make repeated addition sentences. • Write and answer repeated addition calculations as a multiplication using the x symbol. • Write multiplication sentences from pictures such as arrays using the x symbol. • Answer multiplication calculations by making equal groups by sharing using concrete (cubes and rods), pictorial and abstract resources. • Answer multiplication calculations by making equal groups by grouping using concrete (cubes and rods), pictorial and abstract resources. <p>Division</p> <ul style="list-style-type: none"> • Divide any 1 or 2-digit number within 100 by two using concrete, pictorial and abstract methods. • Divide any 1 or 2-digit number within 100 by five using concrete, pictorial and abstract methods. • Divide any 1 or 2-digit number within 100 by ten using concrete, pictorial and abstract methods. • Answer division calculation by making equal groups by sharing using concrete (cubes and rods), pictorial and abstract resources. • Answer division calculations by making equal groups by grouping using concrete (cubes and rods), pictorial and abstract resources. <p>Inverse</p>	<p>multiplication multiply multiplied by multiple groups of times once, twice, three times ... ten times repeated addition division dividing, divide, divided by, divided into grouping sharing, share, share equally left, left over one each, two each, three each ... ten each group in pairs, threes ... tens equal groups of doubling halving array row, column number patterns multiplication table multiplication fact, division fact</p>



	<ul style="list-style-type: none"> • Use the inverse to check calculations for multiplication and division calculations. • Find missing numbers in multiplication and division sentences using inverse operations. • Recognise fact families for arrays including multiplication, division and repeated addition sentences. • Count in 3s forwards and backwards. 	
<p>Year 2 Lent Term Statistics</p>	<ul style="list-style-type: none"> • Make tally charts by interpreting data using the correct symbols. • Draw pictograms using a key representing 1, 2, 5 and 10. • Interpret pictograms with keys representing 1, 2, 5 and 10 • Make block diagrams by interpreting data. • Interpret block diagrams and find the difference between pieces of data. 	<p>count, tally, sort, vote graph, block graph, pictogram represent group, set list, table label, title most popular, most common least popular, least common</p>
<p>Year 2 Lent Term Geometry: Properties of shapes</p>	<ul style="list-style-type: none"> • Recognise 2D shapes and name them using appropriate spelling. • Recognise the properties of 2D shapes including number of sides and vertices. • Draw lines of symmetry. • Compare and group 2D shapes and everyday objects based on their properties. • Recognise 3D shapes and name them using appropriate spelling. • Recognise the properties of 3D shapes including number of faces edges and vertices. • Recognise 2D shapes on the surface of 3D shapes (e.g. a circle on a cylinder). • Compare and sort 3D shapes and everyday objects based on their properties. 	<p>shape, pattern flat curved, straight round hollow, solid sort make, build, draw surface size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern line symmetry pattern, repeating pattern match 2-D shape corner, side point, pointed rectangle (including square), rectangular circle, circular triangle, triangular pentagon hexagon octagon 3-D shape face,</p>



		<p>edge, vertex, vertices cube, cuboid pyramid sphere cone cylinder</p>
<p>Year 2 Lent Term Number: Fractions</p>	<ul style="list-style-type: none"> Name and write $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{2}{4}$ and $\frac{3}{4}$ fractions recognising the numerator and denominator. Recognise $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape or set of objects. Find $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape or set of objects. Find $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{2}{4}$ and $\frac{3}{4}$ of an amount using pictorial and concrete resources to make equal groups. Recognise $\frac{1}{2}$ and $\frac{2}{4}$ as equivalent fractions. 	<p>fraction equivalent fraction mixed number numerator, denominator equal part equal grouping equal sharing parts of a whole half, two halves one of two equal parts quarter, two quarters, three quarters one of four equal parts one third, two thirds one of three equal parts</p>
<p>Year 2 Pentecost Term Measurement: Length and Height</p>	<ul style="list-style-type: none"> Recognise length and height. Measure lengths using a ruler using the correct unit of measure (cm and m). Compare lengths (cm and m) using more than and less than symbols (<, > and =). Order lengths (cm and m). Answer length and height calculations using the four operations (add, subtract, multiply and divide) in a practical context. 	<p>centimetre, metre length, height, width, depth long, short, tall high, low wide, narrow thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on far, further, furthest, near, close ruler metre stick, tape measure</p>
<p>Year 2 Pentecost Term Geometry: Position and Direction</p>	<ul style="list-style-type: none"> Recognise and describe the position, direction and movement of objects using mathematical vocabulary. 	<p>position over, under, underneath above, below top, bottom, side on, in outside, inside around in</p>



	<ul style="list-style-type: none"> Distinguish rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise). 	<p>front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey, route left, right up, down higher, lower forwards, backwards, sideways across next to, close, near, far along through to, from, towards, away from clockwise, anticlockwise movement slide roll turn stretch, bend whole turn, half turn, quarter turn, three-quarter turn right angle straight line</p>
<p>Year 2 Pentecost Term Measurement: Time</p>	<ul style="list-style-type: none"> Tell the time to the hour, half hour and quarter hour using the correct vocabulary (o'clock, half past, quarter past and quarter to). Tell the time to five minutes using the correct vocabulary (past and to). Draw the hands on a clock face to show time, hour, minutes, days, week, month and year). The number of minutes in an hour and the number of hours in a day. Compare and sequence intervals of time (am and pm, 	<p>time days of the week, Monday, Tuesday ... months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, month, year birthday, holiday morning, afternoon, evening, night bedtime, dinnertime,</p>



		<p>playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight date now, soon, early, late quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time , always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds</p>
<p>Year 2 Pentecost Term Measurement: Mass, Capacity and Temperature</p>	<ul style="list-style-type: none"> • Choose the appropriate standard of unit to estimate and measure mass (kg/g) to the nearest unit using scales. • Compare and order mass and record results using the more than and less than (<,> and =) using the appropriate unit (kg/g). • Choose the appropriate standard of unit to estimate and measure capacity (litres/ml) to the nearest unit using scales and measuring vessels. 	<p>litre, half litre, millilitre capacity volume full empty more than less than half full quarter full holds, contains container temperature degree</p>



	<ul style="list-style-type: none"> • Compare and order volume and record results using the more than and less than (<,> and =) using the appropriate unit (litres/ml). • Choose the appropriate standard of unit to estimate and measure temperature (oC) to the nearest unit using thermometers. 	
--	---	--

Year 3	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value			Number: Addition and Subtraction				Number: Multiplication and Division				
Spring	Number: Multiplication and Division			Measurement: Money	Statistics		Measurement: Length and Perimeter		Number: Fractions		Consolidation	
Summer	Number: Fractions			Measurement: Time			Geometry: Properties of Shape		Measurement: Mass and Capacity			Consolidation



Subject area	Knowledge Children will know how to:	Vocab
<p>Year 3 Advent Term 1 Number: Place Value</p>	<ul style="list-style-type: none"> • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words • solve number problems and practical problems involving these ideas. 	<p>number numeral < greater than < less than Roman numerals place, place value stands for, represents exchange the same number as, as many as more, larger, bigger, greater fewer, smaller, less fewest, smallest, least most, biggest, largest, greatest less equal to compare order between halfway between above, below</p>
<p>Year 3 Advent Term Number: Addition and Subtraction</p>	<p>Addition</p> <ul style="list-style-type: none"> • add numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds • add numbers with up to three digits, • use formal written methods of columnar addition 	<p>addition add, more, and make, sum, total altogether double near double half, halve one more, two more ten more difference between equals is the same as number</p>



	<ul style="list-style-type: none"> estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex addition <p>Subtraction</p> <ul style="list-style-type: none"> subtract numbers mentally, including: a three-digit number and ones, a three-digit number and tens, a three-digit number and hundreds subtract numbers with up to three digits, using formal written methods of columnar subtraction estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, place value, and more complex subtraction 	<p>bonds/pairs/facts missing number tens boundary, hundreds boundary</p>
<p>Year 3 Advent Term Number: Multiplication and Division</p>	<ul style="list-style-type: none"> recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables 	<p>multiplication multiply multiplied by</p>
<p>Year 3 Lent Term Number: Multiplication and Division</p>	<p>Multiplication</p> <ul style="list-style-type: none"> write and calculate mathematical statements for multiplication using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods solve problems, including missing number problems, involving <p>Division</p> <ul style="list-style-type: none"> write and calculate mathematical statements for division using mental and progressing to formal written methods 	<p>multiple, factor groups of times product once, twice, three times ... ten times repeated addition division dividing, divide, divided by, divided into left, left over, remainder grouping sharing, share, share equally one each, two each, three each ... ten each group in pairs, threes ... tens equal groups of doubling halving array row, column</p>



	<ul style="list-style-type: none"> • solve problems, including missing number problems, involving division, including positive integer scaling 	number patterns multiplication table multiplication fact, division fact
Year 3 Lent Term Measurement: Money	<ul style="list-style-type: none"> • to add and subtract amounts of money to give change, using both £ and p in practical contexts 	money coin penny, pence, pound price, cost buy, bought, sell, sold spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much ...? how many ...? total
Year 3 Lent Term Statistics	<ul style="list-style-type: none"> • interpret and present data using bar charts, pictograms and tables • solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms 	count, tally, sort, vote graph, block graph, pictogram represent group, set list, table, chart, bar chart, frequency table Carroll diagram, Venn diagram label, title, axis, axes diagram most popular, most common least popular, least common
Year 3 Lent Term Measurement: Length and Perimeter	<ul style="list-style-type: none"> • measure, compare, add and subtract: lengths (m/cm/mm) • measure the perimeter of simple 2-D shapes 	millimetre, centimetre, metre, kilometre, mile length, height, width, depth long, short, tall high, low wide, narrow thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on far, further, furthest, near, close distance apart ... between ... to ... from perimeter ruler metre stick, tape measure
Year 3	<ul style="list-style-type: none"> • 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 	fraction equivalent fraction mixed number numerator, denominator



<p>Lent ad Pentecost term Number: Fractions</p>	<ul style="list-style-type: none"> • recognise, find and write fractions of a discrete set of objects: unit • recognise and show, using diagrams, equivalent fractions with small denominators • add and subtract fractions with the same denominator within one whole • compare and order unit fractions, and fractions with the same denominators • solve problems that involve all of the above 	<p>equal part equal grouping equal sharing parts of a whole half, two halves one of two equal parts quarter, two quarters, three quarters one of four equal parts one third, two thirds one of three equal parts sixths, sevenths, eighths, tenths ...</p>
<p>Year 3 Pentecost Measurement: Time</p>	<ul style="list-style-type: none"> • tell and write the time from an analogue clock, including using Roman numerals from I to XII, and 12-hour and 24-hour clocks • estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight • the number of seconds in a minute and the number of days in each month, year and leap year 	<p>time days of the week, Monday, Tuesday ... months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, month, year, century birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last midnight calendar, date now, soon, early, late, earliest, latest quick, quicker, quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago? how long will it be to ...? how long will it take to ...? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past a.m., p.m. clock, clock</p>



		<p>face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds Roman numerals 12-hour clock time, 24-hour clock time</p>
<p>Year 3 Pentecost Term Geometry: Properties of Shape</p>	<ul style="list-style-type: none"> • draw 2-D shapes and make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them • recognise angles as a property of shape or a description of a turn • identify right angles, 	<p>shape, pattern, flat curved, straight round hollow, solid sort make, build, draw perimeter surface size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern line symmetry pattern, repeating pattern match</p> <p>corner, side point, pointed rectangle (including square), rectangular circle, circular triangle, triangular pentagon, pentagonal hexagon, hexagonal octagon, octagonal quadrilateral right-angled parallel, perpendicular face, edge, vertex, vertices cube, cuboid pyramid sphere, hemisphere cone cylinder prism, triangular prism</p>
<p>Year 3 Pentecost Term Measurement: Mass and Capacity</p>	<ul style="list-style-type: none"> • measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml) 	<p>kilogram, half kilogram, gram weigh, weighs, balances heavy, light heavier than, lighter than heaviest, lightest scales litre, half litre, millilitre capacity volume full empty more than less than half full quarter full holds, contains container</p>



Year 4	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value				Number: Addition and Subtraction			Measurement: Length and Perimeter		Number: Multiplication and Division		
Spring	Number: Multiplication and Division			Measurement: Area	Number: Fractions				Number: Decimals			Consolidation
Summer	Number: Decimals		Measurement: Money		Measurement: Time		Statistics	Geometry: Properties of Shape		Geometry: Position and Direction		Consolidation



Subject area	Knowledge Children will know how to:	Vocab
<p>Year 4 Advent Term Number: Place Value</p>	<ul style="list-style-type: none"> • count in multiples of 6, 7, 9, 25 and 1000. • find 1000 more or less than a given number. • count backwards through zero to include negative numbers. • recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones). • order and compare numbers beyond 1000. • find 1000 more or less than a given number • identify, represent and estimate numbers using different representations. • round any number to the nearest 10, 100 or 1000. • solve number and practical problems that involve all of the above and with increasingly large positive numbers. • read Roman numerals to 100 (I to C). 	<p>factor place value round order compare negative</p>
<p>Year 4 Advent Term Number: Addition and Subtraction</p>	<p>Addition</p> <ul style="list-style-type: none"> • add numbers with up to 4 digits using the formal written methods of columnar addition where appropriate. • solve addition problems in contexts. <p>Subtraction</p>	<p>addition add, more, and make, sum, total altogether double near double half, halve ,difference between equals is the same as number bonds/pairs/facts missing number tens boundary, hundreds boundary inverse</p>



	<ul style="list-style-type: none"> • subtract numbers with up to 4 digits using the formal written methods of columnar subtraction where appropriate. • solve subtraction problems in contexts. • solve two step problems in context. • decide which operations and methods to use and why. • estimate and use inverse operations to check answers. 	
<p>Year 4 Advent Term Measurement: Length and Perimeter</p>	<ul style="list-style-type: none"> • convert lengths from m-cm. mm-cm. • add and subtract lengths. • measure lengths and calculate the perimeter of a rectilinear shapes in cm, mm and m. 	<p>millimetre, centimetre, metre, kilometre, mile length, height, width, depth, breadth long, short, tall high, low wide, narrow thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on far, further, furthest, near, close distance apart ... between ... to ... from edge, perimeter area, covers square centimetre (cm²) ruler metre stick, tape measure</p>
<p>Year 4 Advent and Lent Term Number: Multiplication and Division</p>	<ul style="list-style-type: none"> • recall multiplication and division facts for multiplication tables up 6 x 12. • use place value, known and derived facts to multiply and divide mentally, including, multiplying by 0 and 1; dividing by 1; • multiply together three numbers. • recognise and use factor pairs and commutativity in mental calculations. • multiply and divide by 10 and 100 including decimals. • recall multiplication and division facts for multiplication tables from 7 to 12 x 12. • multiply a two-digit and three-digit number by a one-digit number using formal written method. 	<p>multiplication multiply multiplied by multiple, factor groups of times product repeated addition division dividing, divide, divided by, divided into left, left over, remainder grouping sharing, share, share equally one each, two each, three each ... ten each group in pairs, threes ... tens equal groups of doubling halving array row, column</p>



	<ul style="list-style-type: none"> • divide a two digit and three digit number by a one digit number using a formal written method. • solve problems involving multiplying and adding, including using the distributive law, integer scaling problems and harder correspondence problems such as n objects are connected to m objects. 	<p>number patterns multiplication table multiplication fact, division fact inverse square, squared cube, cubed</p>
<p>Year 4 Lent Term Measurement: Area</p>	<ul style="list-style-type: none"> • Describe What area is.? • find the area of rectilinear shapes by counting squares. • compare area of different shapes. 	<p>millimetre, centimetre, metre, kilometre, mile length, height, width, depth, breadth long, short, tall high, low wide, narrow thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on far, further, furthest, near, close distance apart ... between ... to ... from edge, perimeter area, covers square centimetre (cm²) ruler metre stick, tape measure</p>
<p>Year 4 Lent Term Number: Fractions</p>	<ul style="list-style-type: none"> • recognise the differences between unit and non-unit fractions. • count in tenths. • recognise that tenths arise when dividing an object by 10. • 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. • add and subtract fraction with the same denominator. • subtract fractions from whole ones. • recognise fractions bigger than 1. • find fractions of amounts. 	<p>fraction equivalent fraction mixed number numerator, denominator equal part equal grouping equal sharing parts of a whole decimal fraction, decimal point, decimal place, decimal equivalent proportion</p>



<p>Year 4 Lent and Pentecost term Number: Decimals</p>	<ul style="list-style-type: none"> • recognise and Write decimal equivalents of any number of tenths or hundredths. • recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$. • identify the value of the digits in the answer as ones, tenths and hundredths. • round decimals with one decimal place to the nearest whole number. • compare numbers with the same number of decimal places up to two decimal places. • order decimals. • solve simple problems involving lengths. 	<p>As above</p>
<p>Year 4 Pentecost Term Measurement: Money</p>	<ul style="list-style-type: none"> • add and subtract amounts of money. • convert pounds and pence. • solve simple problems involving all four operations. 	<p>money coin penny, pence, pound price, cost buy, bought, sell, sold spend, spent pay change dear, costs more cheap, costs less, cheaper costs the same as how much ...? how many ...? total</p>
<p>Year 4 Pentecost Term Measurement: Time</p>	<ul style="list-style-type: none"> • convert between units of time. • read time on an analogue and digital clock. • write and convert time between analogue and digital 12- and 24-hour clocks. • solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days. 	<p>time days of the week, Monday, Tuesday ... months of the year (January, February ...) seasons: spring, summer, autumn, winter day, week, weekend, fortnight, month, year, leap year, century, millennium birthday, holiday morning, afternoon, evening, night bedtime, dinner time, playtime today, yesterday, tomorrow before, after earlier, later next, first, last noon, midnight calendar, date, date of birth now, soon, early, late, earliest, latest quick, quicker,</p>



		<p>quickest, quickly slow, slower, slowest, slowly old, older, oldest new, newer, newest takes longer, takes less time how long ago? how long will it be to ...? how long will it take to ...? how often? always, never, often, sometimes usually once, twice hour, o'clock, half past, quarter past, quarter to 5, 10, 15 ... minutes past a.m., p.m. clock, clock face, watch, hands digital/analogue clock/watch, timer hour hand, minute hand hours, minutes, seconds timetable, arrive, depart Roman numerals 12-hour clock time, 24-hour clock time</p>
<p>Year 4 Pentecost Term Statistics</p>	<ul style="list-style-type: none"> • How to interpret and present data using appropriate graphical methods, including bar charts and time graphs. • How to solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs. 	<p>count, tally, sort, vote survey, questionnaire, data graph, block graph, pictogram represent group, set list, table, chart, bar chart, frequency table Carroll diagram, Venn diagram label, title, axis, axes diagram most popular, most common least popular, least common</p>
<p>Year 4 Pentecost Term Geometry: Properties of Shape</p>	<ul style="list-style-type: none"> • compare and classify geometric shapes based on their properties and sizes. • identify acute and obtuse angles. • compare and order angles up to two right angles by size. • identify lines of symmetry in 2-D shapes presented in different orientations. 	<p>shape, pattern flat, line curved, straight round hollow, solid sort make, build, construct, draw, sketch perimeter centre surface angle, right-angled base, square-based size</p>



	<ul style="list-style-type: none"> complete a simple symmetric figure with respect to a specific line of symmetry. 	<p>bigger, larger, smaller symmetry, symmetrical, symmetrical pattern line symmetry reflect, reflection pattern, repeating pattern match regular, irregular 2-D, two-dimensional corner, side point, pointed rectangle (including square), rectangular, oblong rectilinear circle, circular triangle, triangular equilateral triangle, isosceles triangle, scalene triangle pentagon, pentagonal hexagon, hexagonal heptagon octagon, octagonal quadrilateral parallelogram, rhombus, trapezium polygon right-angled parallel, perpendicular 3-D, three-dimensional face, edge, vertex, vertices cube, cuboid pyramid sphere, hemisphere, spherical cone cylinder, cylindrical prism, triangular prism tetrahedron, polyhedron</p>
<p>Year 4 Pentecost Term Geometry: Position and Direction</p>	<ul style="list-style-type: none"> describe positions on a 2-D grid as coordinates in the first quadrant. describe movements between positions as translations of a given unit to the left/right and up/down. plot specified points and draw sides to complete a given polygon. 	<p>position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey, route left, right up, down higher, lower forwards, backwards, sideways</p>



		<p>across next to, close, near, far along through to, from, towards, away from clockwise, anticlockwise compass point north, south, east, west, N, S, E, W north-east, north- west, south-east, south-west, NE, NW, SE, SW horizontal, vertical, diagonal translate, translation, movement slide roll turn stretch, bend whole turn, half turn, quarter turn, three-quarter turn rotate, rotation angle, is a greater/smaller angle than degree right angle acute angle obtuse angle reflection straight line ruler, set square angle measurer, compass</p>
--	--	--



Year 5	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value			Number: Addition and Subtraction		Statistics		Number: Multiplication and Division			Measurement: Perimeter and Area	
Spring	Number: Multiplication and Division			Number: Fractions						Number: Decimals and Percentages		Consolidation
Summer	Consolidation	Number: Decimals			Geometry: Properties of Shape			Geometry: Position and Direction		Measurement: Converting Units		Measurement: Volume



Subject area	Knowledge Children will know how to:	Vocab
<p>Year 5 Advent Term Number: Place Value</p>	<ul style="list-style-type: none"> • recognise the place value of digits in numbers up to 10,000. • count forwards and backwards in steps of powers of 10 for any given number up to 10,000. • recognise the place value of digits in numbers up to 10,000. • interpret negative numbers in context and count forwards and backwards with positive and negative whole numbers, including through zero. • read and write numbers in words and numerals to 10,000. • compare numbers up to 10,000, including use of <, >, =. • order numbers up to 10,000. • read Roman numerals to 1000 (M) and recognise years written in Roman numerals. • recognise the place value of digits in numbers up to 1,000,000. • count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000. • recognise the place value of digits in numbers up to 1,000,000. • read and write numbers in words and numerals to 1,000,000. • compare numbers up to 1,000,000, including use of <, >, =. • order numbers up to 1,000,000. • Round numbers to the nearest 10, 100, 1,000, 10,000 and 100,000. • Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000. • Solve number problems and practical problems that involve all of the above. 	<p>> greater than < less than ≥ greater than or equal to ≤ less than or equal to Roman numerals integer, positive, negative above/below zero, minus negative numbers formula divisibility square number prime number ascending/descending order</p>



<p>Year 5 Advent Term Number: Addition and Subtraction</p>	<ul style="list-style-type: none"> • Addition and Subtraction: • add whole numbers with more than 4 digits, using column addition with carrying. • subtract whole numbers with more than 4 digits, using column subtraction with exchanging. • add numbers mentally with increasingly large numbers (eg, $12,462 + 2300 = 14,762$) • subtract numbers mentally with increasingly large numbers (eg, $12,462 - 2300 = 10,162$) • use column addition to find missing digits and numbers. • use column subtraction to find missing digits and numbers. • solve addition and subtraction multi-step problems in contexts. • decide which operations and methods to use and why. • use rounding to check answers to calculations and determine levels of accuracy. 	<p>addition add, more, and make, sum, total altogether double near double half, halve one more, two more ... ten more ... one hundred more how many more to make ...? how many more is ... than ...? how much more is ...? subtract take away how many are left/left over?</p> <p>how many have gone? one less, two less, ten less ... one hundred less how many fewer is ... than ...? how much less is ...? difference between equals is the same as number bonds/pairs/facts missing number tens boundary, hundreds boundary, ones boundary, tenths boundary inverse</p>
<p>Year 5 Advent Term Statistics</p>	<ul style="list-style-type: none"> • interpret line graphs • draw line graphs • use line graphs to solve problems (comparison, sum and difference) • read tables • interpret tables • read two-way tables • interpret two-way tables • read timetables • interpret timetables 	<p>count, tally, sort, vote survey, questionnaire, data, database graph, block graph, pictogram represent group, set list, table, chart, bar chart, frequency table, bar line chart Carroll diagram, Venn diagram line graph label, title, axis, axes diagram most popular, most common least popular, least common maximum/minimum value outcome</p>



<p>Year 5 Advent Term Number: Multiplication and Division</p>	<ul style="list-style-type: none"> • identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. • use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. • establish whether a number up to 100 is prime and recall prime numbers to 19 • recognise and use square numbers and cube numbers and recognise the notation for squared (2) and cubed (3). • Solve problems involving using knowledge of factors, multiples, squares and cubes. 	<p>multiplication multiply multiplied by multiple, factor groups of times product once, twice, three times ... ten times repeated addition division dividing, divide, divided by, divided into left, left over, remainder grouping sharing, share, share equally one each, two each, three each ... ten each group in pairs, threes ... tens equal groups of doubling halving array row, column number patterns multiplication table multiplication fact, division fact inverse square, squared cube, cubed</p>
<p>Year 5 Advent Term Measurement: Perimeter and Area</p>	<ul style="list-style-type: none"> • measure the perimeter of composite rectilinear shapes (without grids) in centimetres and metres • To consider alternative methods when dealing with rectangles eg, $l + w + l + w$ or $(l + w) \times 2$ • calculate the perimeter of composite rectilinear shapes in centimetres and metres • calculate the area of rectangles (including squares) • use standard units, square centimetres (cm²) and square metres (m²) • calculate the area of compound shapes • split up a compound shape to find the area • How the area remains the same no matter how the compound shape is split up • estimate the area of irregular shapes (counting squares method) 	<p>millimetre, centimetre, metre, kilometre, mile length, height, width, depth, breadth long, short, tall high, low wide, narrow thick, thin longer, shorter, taller, higher ... and so on longest, shortest, tallest, highest ... and so on far, further, furthest, near, close distance apart ... between ... to ... from edge, perimeter area, covers square centimetre (cm²), square metre (m²), square millimetre (mm²) ruler metre stick, tape measure</p>



<p>Year 5 Lent Term Number: Multiplication and Division</p>	<ul style="list-style-type: none"> • multiply whole numbers and those involving decimals by 10, 100 and 1,000. • divide whole numbers and those involving decimals by 10, 100 and 1,000. • multiply numbers up to 4 digits by a 1 digit number, using formal written methods (long multiplication, beginning to look at short multiplication) • multiply numbers up to 4 digits by a 2 digit number, using formal written methods (long multiplication) • divide numbers up to 4 digits by a 1 digit number, using the formal written method of short division • interpret remainders appropriately for the context. • solve problems involving multiplication and division • multiply and divide numbers mentally, drawing upon known facts 	
<p>Year 5 Lent Term Number: Fractions</p>	<ul style="list-style-type: none"> • compare fractions (less than and greater than 1) whose denominators are all multiples of the same number • order fractions (less than and greater than 1) whose denominators are all multiples of the same number • identify and name equivalent fractions of a given fraction • write equivalent fractions of a given fraction • recognise mixed numbers (a number consisting of an integer and a proper fraction) • write mathematical statements > 1 as a mixed number • recognise improper fractions (a fraction where the numerator is greater than the denominator) • convert from improper fractions to mixed numbers • convert from mixed numbers to improper fractions • add fractions with the same denominator • add fractions with denominators that are multiples of the same number • subtract fractions with the same denominator • subtract fractions with denominators that are multiples of the same number 	<p>fraction, proper/improper fraction equivalent fraction mixed number numerator, denominator equivalent, decimal point, decimal place, decimal equivalent proportion, per cent, %</p>



	<ul style="list-style-type: none"> • add two fractions where one or both are mixed numbers or improper fractions • subtract proper fractions from mixed numbers • subtract two fractions where one or both are mixed numbers or improper fractions • multiply unit fractions by an integer • multiply proper fractions by an integer • multiply a mixed number by an integer 	
<p>Year 5 Lent Term Number: Decimals and Percentages</p>	<ul style="list-style-type: none"> • read and write decimal numbers (up to 3 d.p) • understand the value of each digit (up to 3 d.p) • order numbers with up to 3 d.p • compare numbers with up to 3 d.p • read and write decimals as fractions • read and write more complex decimals (0.96, 0.03 etc) and numbers greater than 1 (1.2, 4.01 etc) as fractions • recognise and use thousandths • Explain the relationship between tenths, hundredths and thousandths • Explain the link between thousandths and decimal and mixed number equivalences • round decimals with two d.p to the nearest whole number • round decimals with 2d.p to the nearest tenth (1 d.p) • solve problems involving numbers up to 3 d.p • Explain that per cent relates to number of parts per hundred • Use the per cent symbol (%) • That percentages, decimals and fractions are different ways of expressing proportions • write percentages as a fraction with a denominator 100 • write percentages as a decimal • recognise simple equivalent fractions and represent them as decimals • recognise simple equivalent fractions and represent them as percentages • Percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{3}{5}$, $\frac{4}{5}$ 	<p>Decimal decimal-place compare order tenths thousandths hundredths numerator denominator percent</p>



	<ul style="list-style-type: none"> Percentage and decimal equivalents of fractions with a denominator of a multiple 	
<p>Year 5 Pentecost Term Number: Decimals</p>	<ul style="list-style-type: none"> add decimals crossing the whole subtract decimals crossing the whole Add decimals with the same and different number of decimal places Subtract decimals with the same and different number of decimal places Add and subtract wholes and decimals Complete decimal sequences Multiply decimals by 10, 100 and 1000 Divide decimals by 10, 100 and 1000 	<p>As above</p>
<p>Year 5 Pentecost Term Geometry: Properties of Shape</p>	<ul style="list-style-type: none"> measure angles in degrees measure acute angles with a protractor measure obtuse angles with a protractor draw given angles accurately estimate and compare acute, obtuse and reflex angles identify a right angle is That two right angles are equivalent to a straight line identify and calculate missing angles on a straight line and half a turn That there are 3600 in a full turn When to measure an angle and when they should calculate the size of an angle from given facts identify and calculate missing angles at a point and one a whole turn identify and calculate missing angles involving other multiples of 90 The properties of rectangles use these properties to deduce related facts and find missing lengths and angles distinguish between regular and irregular polygons That regular means all the sides and angles in a shape are equal 	<p>flat, line curved, straight round hollow, solid sort make, build, construct, draw, sketch perimeter centre, radius, diameter surface angle, right-angled congruent base, square-based size bigger, larger, smaller symmetry, symmetrical, symmetrical pattern line symmetry reflect, reflection axis of symmetry, reflective symmetry pattern, repeating pattern match regular, irregular 2-D, two-dimensional corner, side point, pointed rectangle (including square), rectangular, oblong rectilinear circle, circular triangle, triangular equilateral triangle, isosceles triangle, scalene triangle pentagon, pentagonal</p>



	<ul style="list-style-type: none"> • That irregular polygons are shapes like a rectangle or isosceles triangle • identify 3-D shapes, including cubes and cuboids from 2-D shapes • Language associated with properties of 3-D shapes (faces, curved surfaces, vertices, edges etc) 	<p>hexagon, hexagonal heptagon octagon, octagonal quadrilateral parallelogram, rhombus, trapezium polygon right -angled parallel, perpendicular x-axis, y-axis, quadrant 3-D, three-dimensional face, edge, vertex, vertices cube, cuboid pyramid sphere, hemisphere, spherical cone cylinder, cylindrical prism, triangular prism tetrahedron, polyhedron octahedron</p>
<p>Year 5 Pentecost Term Geometry: Position and Direction</p>	<ul style="list-style-type: none"> • That the origin of coordinates is (0,0) • That the first number represents the x coordinate • That the second number represents the y coordinate • translate shapes on a grid • To focus on one vertex at a time when translating • translate coordinates • describe translations of coordinates • reflect shapes on a grid • reflect shapes with coordinates • explain what happens to points (coordinates) when they are reflected in lines parallel to the axes • That reflection and translation do not change 	<p>position over, under, underneath above, below top, bottom, side on, in outside, inside around in front, behind front, back beside, next to opposite apart between middle, edge centre corner direction journey, route left, right up, down higher, lower forwards, backwards, sideways across next to, close, near, far along through to, from, towards, away from clockwise, anticlockwise compass point north, south, east, west, N, S, E, W north-east, north- west, south-east, south-west, NE, NW, SE, SW horizontal, vertical, diagonal translate, translation coordinate movement slide roll turn</p>



		<p>stretch, bend whole turn, half turn, quarter turn, three-quarter turn rotate, rotation angle, is a greater/smaller angle than degree right angle acute angle obtuse angle reflection straight line ruler, set square angle measurer, compass, protractor</p>
<p>Year 5 Pentecost Term Measurement: Converting Units</p>	<ul style="list-style-type: none"> • use the prefix 'kilo' in units of length and mass mean a thousand • convert from metres to kilometres and vice versa • convert from grams to kilograms and vice versa • convert from centimetres to metres and vice versa • convert from centimetres to millimetres and vice versa • convert from litres to millilitres and vice versa • What imperial units of measure are (such as inches, pounds and pints) • understand and use the approximate equivalences between metric units and common imperial units • convert between units of time including years, months, weeks, days, hours, minutes and seconds • solve problems involving converting between units of time 	<p>millimetre, centimetre, metre, kilometre, mile length, height, centimetre (cm²), square metre (m²), square millimetre (mm²) kilogram, half kilogram, gram weigh,</p>
<p>Year 5 Pentecost Term Measurement: Volume</p>	<ul style="list-style-type: none"> • That volume is the amount of solid space something takes up • That volume is different to capacity as capacity is related to the amount a container can hold • use their understanding of volume to compare and order different solids that are made of cubes • estimate the volume and capacity of different solids and objects • That containers can be different shapes but still hold the same capacity 	<p>volume full empty more than less than half full quarter full holds, contains container, measuring cylinder pint, gallon litre, half litre, millilitre capacity</p>



	<ul style="list-style-type: none"> That they need to choose the most suitable unit of measure for different objects, eg using m³ for the volume of a room 	
--	---	--

Year 6	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value		Number: Addition, Subtraction, Multiplication and Division				Number: Fractions				Geometry: Position and Direction	
Spring	Number: Decimals		Number: Percentages		Number: Algebra		Measurement: Converting Units	Measurement: Perimeter, Area and Volume		Number: Ratio		Statistics
Summer	Geometry: Properties of Shape			Consolidation or SATs preparation		Consolidation, investigations and preparations for KS3						



Subject area	Knowledge Children will know :	Vocab
<p>Year 6 Advent Term Number: Place Value</p>	<ul style="list-style-type: none"> • recognise the place value of digits in numbers up to 100,000. • recognise the place value of digits in numbers up to 1 million. • recognise the place value of digits in numbers up to 10 million. • read and write numbers in figures up to 10 million. • read and write numbers in words up to 10 million. • represent numbers up to 10 million in different ways. • compare numbers up to 10 million using $< > =$ • order numbers up to 10 million. • round numbers to the nearest 10,100 and 1000. • round numbers to the nearest whole number, tenths and hundredths. • round numbers up to 10 million to the nearest 10,000, 100,000 and 1 million. • use negative numbers in context. • calculate using negative numbers using intervals 	<p>Million, greater than, less than negative interval round</p>



<p>Year 6 Advent Term Number: Addition, Subtraction, Multiplication and Division</p>	<ul style="list-style-type: none"> • add numbers with more than 4 digits using column addition. • subtract numbers with more than 4 digits using column subtraction with exchanging. • use column addition and subtraction methods to find missing digits and numbers. • use inverse operations to find missing numbers and check calculations. • understand the commutative law to support their inverse work. • use addition and subtraction formal methods to solve multi-step problems. • choose an appropriate method (written or mental) to solve addition and subtraction calculations. • name factors of a given number. • find common factors of 2 numbers. • name multiples of a given number. • find common multiples of numbers. • name some prime numbers. • give prime factors of a given number. • square and cube numbers. • use the order of operations to complete calculations • multiply a 4 digit number by a 1 digit number using formal written methods (short multiplication). • multiply a 2 digit number by a 2 digit number using formal written methods (long multiplication) • multiply a 3 digit number by a 2 digit number using formal written methods (long multiplication) • multiply a 4 digit number by a 2 digit number using formal written methods (long multiplication). • use formal written multiplication methods to find missing numbers and digits. 	<p>Add subtract exchange calculate commutative factor multiple prime squared cubed</p>
---	--	--



	<ul style="list-style-type: none"> • divide 4 digits numbers by a 1 digit number using the short division method. • divide 4 digit numbers by 2 digit numbers using the short division method. • divide 4 digit numbers by 1 or 2 digit numbers using short division • including remainders. • express division remainders as whole number remainders, fractions and decimals. • divide 3 digit numbers by a 2 digit number using the long division method. • calculate multiples of 2 digit numbers for long division. • divide 4 digit numbers by 2 digit numbers using the long division method. • divide 4 digit numbers by 2 digit numbers using the long division method where remainders are involved. • multiply by 10,100 and 1000 beginning to do this 	
<p>Year 6 Advent Term Number: Fractions</p>	<ul style="list-style-type: none"> • name equivalent fractions for unit fractions. • name equivalent fractions for non-unit fractions. • simplify fractions to their simplest form. • convert improper fractions to mixed numbers. • convert mixed numbers to improper fractions. • count forwards and backwards in fractions. • compare and order fractions where the denominator is the same. • compare and order fractions where the denominators are different. • add and subtract fractions within 1 where the denominators are the same. • add and subtract fractions within 1 where the denominators are multiples of the same number. • add and subtract fractions where the denominators are not multiples of the same number. • add and subtract fractions where the answer is larger than 1. • adding and subtracting mixed numbers. • solve problems using addition and subtraction of fractions and mixed numbers. • multiply fractions by an integer. 	<p>Unit fraction, non-unit fraction , mixed number, simplest, improper, denominator, numerator, integer, equivalent</p>



	<ul style="list-style-type: none"> • multiply a mixed number by an integer. • multiply fractions by fractions. • divide fractions by an integer where the numerator is a multiple of the integer. • divide fractions by an integer where the numerator is not a multiple of the integer. • use the four operations when calculating with fractions. • calculate fractions of an amount. 	
<p>Year 6 Advent Term Geometry: Position and Direction</p>	<ul style="list-style-type: none"> • read and plot co-ordinates on a single quadrant grid. • draw shapes on a single quadrant grid from given coordinates. • read and plot co-ordinates in a 4 quadrant grid. • draw shapes from given coo-ordinates in a 4 quadrant grid. • calculate the length of a line by using the coordinates of its two endpoints. • translate shapes in all 4 quadrants. • describe translations using directional language (units, left, right, up, down) • draw translated shapes. • reflect shapes in all 4 quadrants- reflecting in both the x and the y axis. • describe reflections using directional language (right, left, x axis etc.). 	<p>Quadrant, co-ordinate, axis translate reflect</p>
<p>Year 6 Lent Term Number: Decimals</p>	<ul style="list-style-type: none"> • recognise the place value of numbers with up to 2dp. • recognise the place value of numbers with up to 3dp. • represent numbers up to 3dp in different ways. • compare and order numbers up to 3dp. • multiply numbers up to 3dp by a 1 digit number. • multiply numbers up to 3dp by a 2 digit number. • divide numbers up to 3dp by a 1 digit number. • use multiplication and division of decimals to solve problems. • convert decimals to fractions (tenths and hundredths). • convert fractions to decimals using their knowledge of tenths and hundredths. • convert fractions to decimals using division. 	<p>Decimal, decimal point, decimal place tenths hundredths thousandth</p>



<p>Year 6 Lent Term Number: Percentages</p>	<ul style="list-style-type: none"> • know what 'per cent' means and be able to name percentages out of 100. • convert fractions to percentages using previous knowledge of decimals and fractions. • convert, compare and order fractions, decimals and percentages. • find percentages of amounts using known fractional equivalents (50%, 25%, 10% and 1%) • find percentages of amounts to the nearest 10%, 5% and 1%. 	<p>Percent equivalent percentages fractions</p>
<p>Year 6 Lent Term Number: Algebra</p>	<ul style="list-style-type: none"> • follow one step instructions/rules using function machines. • follow two step instructions/rules using function machines. • use the inverse to find the initial number from the answer. • substitute numbers into simple expressions to find answers. • form one step equations using algebraic notion. • solve one step equations using the 4 operations. • solve two step equations using the 4 operations. • use substitution to find pairs of values (e.g. $a+b=6$) 	<p>Expression algebraic formulae substitute values</p>
<p>Year 6 Lent Term Measurement: Converting units</p>	<ul style="list-style-type: none"> • read, write and recognise all metric measures for length, mass and capacity (mm, cm, m, km, g, kg, ml, l) • use their estimation skills in context and decide when it is appropriate to use different metric units of measure. • convert between mm, cm, m and km in both directions. • convert between g and kg in both directions. • convert between m and l in both directions. • solve problems using measurement in context. • convert between miles and km. • read imperial measures and their conversions. 	<p>Cm mm m km convert estimate unit of measure length mass capacity</p>
<p>Year 6 Lent Term</p>	<ul style="list-style-type: none"> • calculate the area and perimeter of rectilinear shapes. • draw rectilinear shapes that have the same area. • draw rectilinear shapes that have the same perimeter. 	<p>Perimeter rectilinear right angled area cuboid triangle parallelogram cuboid 2d 3d</p>



<p>Measurement: Perimeter, area and volume</p>	<ul style="list-style-type: none"> • count squares to work out the area of triangles. • calculate the area of a right-angled triangle. • calculate the area of any triangle using $b \times h / 2$ • calculate the area of parallelograms. • understand what volume is. • calculate volume of 3d shapes by counting cubes. • calculate volume of cuboids using $l \times w \times h$. 	
<p>Year 6 Lent Term Number: Ratio</p>	<ul style="list-style-type: none"> • use ratio language including 'for every' to compare between two different quantities. • use objects and diagrams to compare ratios and fractions. • use a colon for the ratio symbol and link this with the language 'for every'. • calculate ratios being able to find both a part and a whole. • enlarge shapes to make them 2 or 3 times as big etc using scale factor, drawing these on a single quadrant grid. • calculate the scale factor of similar shapes. • Solve problems involving ration and proportion. 	<p>Ratio fraction scale factor part whole</p>
<p>Year 6 Lent Term Statistics</p>	<ul style="list-style-type: none"> • read and interpret information from line graphs. • draw their own line graphs using the most appropriate scales and intervals for the data. • solve problems using line graphs. • illustrate and name parts of a circle including radius, diameter, centre and circumference. • recognise that the diameter is twice the length of the radius. • interpret the data from pie charts including those with percentages. • solve problems using information from pie charts. • construct their own pie chart. • calculate the mean average in a variety of contexts. 	<p>Intervals radius diameter centre circumference pie chart mean average</p>



<p>Year 6 Pentecost Term Geometry: Properties of shape</p>	<ul style="list-style-type: none"> ● measure angles using a protractor. ● describe angles using the 4 different types of angles (acute, obtuse, right angle, reflex) ● draw lines correctly to the nearest mm. ● draw angles of a given size. ● use estimation skills whilst drawing and measuring angles. ● know the degrees in a right angle and understand the connection between these and quarter turns. ● recognise that two right angles are equivalent to a straight line. ● calculate missing angles on straight lines knowing that angles on a straight line add up to 180 degrees. ● recognise that 4 right angles are equivalent to one full turn. ● calculate missing angles in a full turn knowing that angles in a turn add up to 360 degrees. ● recognise that vertically opposite angles share a vertex and so that they are equal. ● know that the interior angles of a triangle add up to 180 degrees and use this to calculate missing angles. ● understand the properties of angles and side lengths when hatch marks are used. ● calculate the interior angles of quadrilaterals knowing they add up to 360 degrees. ● calculate the interior angles in polygons using properties of shapes. ● draw shapes accurately using their knowledge of properties of shapes. ● identify 3d shapes from their nets. ● draw nets of shapes accurately. 	<p>Angle measure protractor acute obtuse right angle reflex Quarter equivalent vertex polygon perpendicular quadrilaterals interior angle</p>
---	--	---