Maths Progression Ma	ιp			
	E	YFS	Ke	y Stage 1
ST.LUKE'S SCHOOL	Pupils should be taught to: Nursery Uses some number names and number language spontaneously. Uses some number names accurately in play. Recites numbers in order to 10. Knows that numbers identify how many objects are in a set. Beginning to represent numbers using fingers, marks on paper or pictures. Sometimes matches numeral and quantity correctly. Shows curiosity about numbers by offering comments or asking questions. Compares two groups of objects, saying when they have the same number. Shows an interest in number problems. Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. Shows an interest in representing numbers. Realises not only objects, but anything can be counted, including steps, claps or jumps Reception Children in Reception are working towards meeting the Early Learning Goal: Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.		Pupils should be taught to: Year one count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number count, read and write numbers to 100 in numerals count in multiples of twos, fives and tens given a number, identify one more and one less identify and represent numbers using objects and pictorial representations including the number line use the language of: equal to, more than, less than (fewer), most, least read and write numbers from 1 to 20 in numerals and words. Year 2 count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward recognise the place value of each digit in a two-digit number (tens, ones) identify, represent and estimate numbers using different representations, including the number line compare and order numbers from 0 up to 100; use <, > and = signs read and write numbers to at least 100 in numerals and in words use place value and number facts to solve problems	
Number and Place Value	Nursery	Reception	Year 1	Year 2
	Skills: Children count up to 10 objects using 1-1 correspondence Children count by rote to 10 Begins to represent numbers in their preferred way Begins to compare quantities of groups Children count up to 10 objects using 1-1 correspondence Children are encourage to use concrete resources to explore number	Skills: Children count by rote to Children are able to order numbers 1-20 Children count up to 20 objects using 1-1 correspondence Children are able to state one less or one more than a given number from 0-20 Children are encourage to use concrete resources to explore addition and subtraction within 10	Skills: Children are introduced to the hundred square and use it to count forwards and backwards within 100 Children explore crossing the tens boundaries and teen numbers using number tracks and hundred square Children are encouraged to use concrete resources before making pictorial representatives Children order sets of objects and numbers from smallest to largest and largest to smallest	Skills: Children count objects to 100 in words and represent these numbers in numerals Children should be able to state how a number is made up, stating how many tens and ones there are Children are introduced to place value chart Children compare a range of groups using quantity vocabulary Children count forwards and backwards in 2s, 5s and 10s Symbols:

Symbols: Begin to recognise numerals in the environment. Language: Count, number, more, less, the same, how many	 Children compare quantities of groups Children are able to double, halve and share within 10 Symbols: Begin to recognise and form numerals Introduction to + - = Language: 	 Children are taught to group in 10s to make counting quicker and more efficient Children sort and compare two sets of objects and use the inequality symbols to compare Children continue sequences and also find consecutive and non-consecutive missing numbers in sequences Symbols: <>= - + 	<pre>c>=-+ Language: estimate, multiple, equal, less/fewer, more/greater, most, bigger, biggest, larger, least, smaller, smallest, tens, ones, digit, multiple, ordinal, part-whole model, bar model.</pre>
		•	
	More, less, tens, ones, digit, add, subtract, take away	Language:	
	Subtract, take away	Equal, less/fewer, more/greater, most, bigger, biggest, larger, least, smaller,	
		smallest, tens, ones, digit, multiple,	
		ordinal, part-whole, bar model	

SEND Provision:

Maths Progression Map				
	E	YFS	Key	y Stage 1
ST.LUKE'S SCHOOL	Pupils should be taught to: Nursery Recites numbers in order to 10. Knows that numbers identify how many objects are in a set. Sometimes matches numeral and quantity correctly. Shows curiosity about numbers by offering comments or asking questions. Compares two groups of objects, saying when they have the same number. Shows an interest in number problems. Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. Shows an interest in representing numbers. Realises not only objects, but anything can be counted, including steps, claps or jumps Reception Children in Reception are working towards meeting the Early Learning Goal: Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.		Pupils should be taught to: Year one Read, write and interpret mathematical statements involving addition, subtraction and equals signs Represent and use number bonds and related subtraction facts within 20 Add and subtract one-digit and two-digit numbers to 20, including zero Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems. Year 2 Solve problems with addition and subtraction Using concrete objects and pictorial representations including those involving number, quantities and measures Applying their increasing knowledge of mental and written methods Recall and use addition and subtraction facts to 20 fluently and derive and use related facts up to 100 Add and subtract numbers using concrete objects, pictorial representations and mentally including: a two digit number and ones a two digit number and tens two two-digit numbers Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.	
Addition and Subtraction	Nursery	Reception	Year 1	Year 2
	Skills: Begins to compare quantities of groups Children count up to 10 objects using 1-1 correspondence Children are encourage to use concrete resources to explore number Symbols: Begin to recognise numerals in the environment.	Skills: Children count up to 20 objects using 1-1 correspondence Children count one or more groups of objects to find a total Children are able to state one less or one more than a given number from 0-20 Children are encourage to use concrete resources to explore addition and subtraction within 10 Children compare quantities of groups	• Children are introduced to the hundred square and use it to count forwards and backwards within 100 • Children are encouraged to use concrete resources before making pictorial representatives • Children are introduced to range of bar models, including part-whole model. • Children understand that a number can be partitioned into two or more parts.	 Skills: Children use discussions to check their calculations. Children are encouraged to use concrete and pictorial representatives. Children compare similar calculations using greater than, less than and equal to symbols. Children use their knowledge that one ten is the same as ten ones. Children should have an understanding of calculations with similar digits, e.g. 2+5=7 so 20+50=70.

Language:	Children are encourage to	Children are secure with number	Children should have an understanding
Count, number, more, less, the	use concrete resources to explore	bonds within 10 and use this to support	of multiples of 10 up to 100.
same, how many	number	understanding of number bonds to 20	Children should use place value to add
,	Symbols:	Children know that when zero is	and subtract 10s within 100.
	Begin to recognise and form	added or taken away the number remains	Children add together 2-digit numbers
	numerals	the same.	including exchange.
	Introduction to + - =	Children begin to create their own	Children begin to work on number
	Language:	number stories/problems.	bonds to 100 using their knowledge of number
	More, less, tens, ones, digit, add,	Children use the skill of counting	bonds to 10 to support.
	subtract, take away, altogether	on and counting backwards to help find	
		the difference.	Symbols:
		Children show begin to	=-+<>
		understand that addition and subtraction	
		are inverse operations.	Language:
		Symbols:	Equal, subtraction, subtract, minus, minuend,
		=-+	subtrahend, difference, addition, plus, add,
		Language:	addend, total, sum, tens, ones, digit, part-part-
		Equal, subtraction, subtract, minus,	whole, inverse
		addition, plus, add, tens, ones, digit, part-	
		part-whole, bar model, total, difference	

SEND Provision:

Maths Progression Ma	1aths Progression Map					
	E	YFS	Key Stage 1			
ST.LUKE'S SCHOOL	Pupils should be taught to: Nursery: Uses some number names and number language spontaneously. Uses some number names accurately in play. Recites numbers in order to 10. Knows that numbers identify how many objects are in a set. Sometimes matches numeral and quantity correctly. Compares two groups of objects, saying when they have the same number. Shows an interest in number problems. Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same. Realises not only objects, but anything can be counted, including steps, claps or jumps. Children in Reception are working towards meeting the Early Learning Goal: Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing.		Rey Stage 1 Pupils should be taught to: Year one 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 Year 2 recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (x), division (÷) and equals (=) signs show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts.			
Multiplication and Division	Nursery Reception		Year 1	Year 2		
	Skills: Children are creating a secure number base using concrete resources and pictorial representations in order to later multiple mentally.	Skills: Children count in multiples of 2. Children are creating a secure number base using concrete resources and pictorial representations in order to later multiple mentally.	Skills:	 Skills: Children count in multiples of 2, 3 and both forwards and backwards. Children understand that multiplication of two numbers can be done in any order and division of one number by another cannot. calculate mathematical statements for multiplication and division within the multiplication tables and write them using appropriate signs. Symbols:		

SEND Provision:

'Word walls' or similar to develop an understanding of new vocabulary

	High expectations by all, for all, reflecting the example of Jesus
Coloured background on whiteboard KIRF reinforcement	

Maths Progression Ma	ogression Map				
	E	YFS	Ke	y Stage 1	
ST.LUKE'S SCHOOL	Pupils should be taught to: Nursery Nursery Children explore the concept of half full, full, empty through play scenarios. Children in Reception are working towards meeting the Early Learning Goal: Children count reliably with numbers from one to 20, place them in order and say which number is one more or one less than a given number. Using quantities and objects, they add and subtract two single-digit numbers and count on or back to find the answer. They solve problems, including doubling, halving and sharing		Pupils should be taught to: Year one Recognise, find and name a half as one of two equal parts of an object, shape or quantity Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity. Year two Recognise, find, name and write fractions ½, ½, 2/4 and ¾ of a length, shape, set of objects or quantity Write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of 2/4 and ½		
Fractions	Nursery	Reception	Year 1	Year 2	
	Skills: Children are developing a solid understanding of number in order to ensure their readiness for learning fractions in KS1. Children explore fractions through their exploration of the environment. Language: Whole, half, gone, empty, full, half-full	Skills: Children are developing a solid understanding of number in order to ensure their readiness for learning fractions in KS1. Children explore fractions through their exploration of the environment. Children begin to explore the concept of doubling, halving and sharing. Language: Whole, half, gone, empty, full, halffull	Skills: Children explore finding a half and a quarter for the first time using shapes and sets of objects. It is important that they know that a half means 'one of two equal parts' and are able to count them. Children find half and a quarter using concrete manipulatives. Children explore quarters for the first time. They also begin to describe capacity using the terminology 'a quarter full' Symbols: Children are not yet shown the notation ½ ¼ Language: Fraction, half, quarter, whole, quarter full, equal, unequal	Skills: Children understand the concept of a whole as being one object or one quantity. Children explore making and recognising equal and unequal parts. Children understand that halving is splitting a whole into two equal parts. Children are introduced to the notation 1/2 for the first time and will use this alongside sentence stems and 'half' or 'halves'. Children should be introduced to the language of numerator, denominator and what these represent. Children find half a set/object and link this with dividing by 2. Children recognise quarters of shapes, objects and quantities they work concretely and pictorially. Children are introduced to thirds. Children are introduced to the non-unit fractions ¾ ¾ 2/4 Symbols:	

 High expectations by all, for all, reflecting the example of Jesus ———————————————————————————————————			
			Language: Fraction, half, quarter, whole, quarter full, equal, unequal, numerator, denominator, divide,

SEND Provision:

	E	YFS	Ke	y Stage 1
ST.LUKE'S SCHOOL	Pupils should be taught to: Nursery Orders two or three items by len Uses positional language Orders and sequences familiar et Measures short periods of time it Reception Children in Reception are working towards Children use everyday language to talk about time and money to compare quantities and recognise, create and describe patterns. The and shapes and use mathematical language	wents. n simple ways. meeting the Early Learning Goal: at size, weight, capacity, position, distance, objects and to solve problems. They ey explore characteristics of everyday objects	tell the time to the hour and half past the hour are compared in the hour and half past the hour are compared in the hour and use appropriate standard units to the hour and use suppose the hour and uses of the hour and uses of the hour and use symbols for pounds (£) are find different combinations of coins that equal to the hour and half past the hour and half pas	enominations of coins and notes ag language as, including days of the week, weeks, months and years our and draw the hands on a clock face to show these times. to estimate and measure length/height in any direction appropriate unit, using rulers, scales, capacity and record the results using >, < and = and pence (p); combine amounts to make a particular value ual the same amounts of money involving addition and subtraction of money of the same unit, Il and write the time to five minutes, including quarter past/to these times
Measurements	Nursery	Reception	Year 1	Year 2

Skills:

- Children begin to talk about the size of objects using language they are confident with.
- Children order objects whilst playing.
- Children confidently explain when something is using positional language.
- Children understand what time it is using the events of the day and predict what is coming next.
- Children use their own nonstandard measurements to measure time e.g. sleeps.

Symbols:

Numeral recognition, recognise a clock and understand what it is used for.

Language:

Height/length: Long, short, measure **Weight:** heavy, light, full, empty, half-full, time,

Time: home time, snack time, play time, tidy-up time, late, soon, next, now. **Money:** coin, notes, pounds, pence

Skills:

- Children begin to compare objects by height, length and weight using their senses.
- Children use non-standardised units of measurement.
- Children order times of the day and use positional language to describe events.
- Children develop a sense of time and use appropriate vocabulary.

Symbols:

Numeral recognition, recognise a clock and understand what it is used for.

Language:

Height/length: Size, long, longer, longest, shorter, shortest, short, measure, medium, Weight: heavy, light, heaviest, lightest, full, empty, half-full, time,

Time: home time, snack time, play time, tidy-up time, yesterday, today, tomorrow, later, soon, after, next, now

Money: coin, notes, pounds, pence

Skills:

Height/Length:

- Children use and understand the language of length such as long, longer, short, shorter, tall, taller.
- They recognise this language will change depending on what type of length they are describing and comparing.
- Children understand that height is a type of length.
- Children begin to measure using a ruler.
- Children understand that objects can vary in length and size, so a standard unit of measurement is required.
- Children measure from 0 cm

Weight/Capacity:

- Children should hold objects and describing them using appropriate vocabulary.
- Children begin to use scales to measure the weight of objects and use non-standard units of measure.
- Explore the misconception that heavier objects are larger in size.
- Children compare the volume in a container by describing whether it is full, nearly full, empty or nearly empty.

Money:

- Children know the value of different coins and notes.
- Children use their place value knowledge and apply this to coins and notes.
- Children use knowledge of counting in 2, 5 and 10s to speed up counting coins/notes.
- Children draw representations of coins.Symbols:

Syllibols.

£ p CM <>=

Language:

Time: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening, quicker, slower, earlier, later, hours, minutes, seconds, days of the week, months and years.

Height/Length: long/short, longer/shorter, tall/short, double/half, CM

Skills:

Height/Length:

- Children measure to the nearest CM using a ruler.
- Children measure length and height and focus on the importance of measuring from 0.
- Children move onto measuring using metres.
- Children compare lengths of objects using comparison language and symbols.
- Children only compare using the same unit of length in a question.
- Children solve one-step and two-step problems relating to length and use concrete and pictorial representations to calculate efficiently.

Weight/Capacity:

- Children use grams as a standard unit of mass.
 - Children read the scales to find out the mass.
- Children begin to measure in kilograms
- Children actively explore capacity and volume through exploration.
- Children begin to measure using millilitres and litres.

Money:

- Children will count in 2ps, 5ps, 10ps and use related facts to count in 20ps.
- Children will bring the counting of pounds and pence together.
- Children will be encouraged to use different methods to add up amounts of money.
- Children build on subtraction skills through the concept of 'change'.
- Children can convert £1 to 100 pennies.
- Children use a bar model to help them solve problems.

Temperature:

- Children are introduced to temperature, thermometers and the units 'degrees Centigrade', written °C
- They learn that the temperature is higher when it is warmer.
- They apply their counting in 2s, 5s and 10s skills when reading different scales on thermometers

Symbols:

f p <> = CM c L ML

Language:

Time: before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening, quicker,

High expectations by all, for all, reflecting the example of Jesus			
		Weight/Capacity: full/empty, more than, less than, half, half full, quarter, heavy/light, heavier than, lighter than, CM, nearly full, nearly empty Money: coin, notes, pounds, pence	slower, earlier, later, hours, minutes, seconds, days of the week, months and years. Height/Length: long/short, longer/shorter, tall/short, double/half, CM, metres. Weight/Capacity: full/empty, more than, less than, half, half full, quarter, heavy/light, heavier than, lighter than, mass, capacity, grams. kgs, half, three-quarters, volume, millitres, litres. Temperature: thermometer, temperature, degreescentigrade Money: coin, notes, pounds, pence, pennies, change, barmodel

SEND Provision:

Wiauis Progression Wia				
	E	YFS	Key Stage 1	
ST.LUKE'S SCHOOL	Pupils should be taught to: Nursery Shows interest in shapes in the environment. Uses shapes appropriately for tasks. Beginning to talk about the shapes of everyday objects, Shows an interest in shape and space by playing with shapes or making arrangements with objects. Shows awareness of similarities of shapes in the environment.		Pupils should be taught to: Year one recognise and name common 2-D and 3-D shapes, including: 2-D shapes [for example, rectangles (including squares), circles and triangles] 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]. describe position, direction and movement, including whole, half, quarter and three quarter turns. Year 2 order and arrange combinations of mathematical objects in patterns and sequences 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). Identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line Identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces Identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid] compare and sort common 2-D and 3-D shapes and everyday objects.	
Geometry	Nursery	Reception	Year 1	Year 2
	Skills: Shape Children will explore 2D and 3D shapes during their play. Position and direction Children begin to use positional language known to them to describe the position of themselves, others and objects. Language: shape, square, oblong, rectangle, triangle, circle, cube, cuboid, cylinder, sphere Position and direction under, over, next to, through, up, down, forwards, backwards, above, below, inside, ontop.	Skills: Shape Children will explore 2D and 3D shapes during their play. Children explore the properties of a range of 2D and 3D shapes Children consider what shapes are good for rolling and which are good for stacking Children notice 2D shapes as the faces of 3D shapes. Children begin to name simple 2d shapes in different orientation. Children compare 2D shapes noticing what is the same and what is different. Position and direction	Skills: Shape Children name and recognise simple D and 3D shapes in a variety of orientations. Children notice and discuss the 2D shapes on the faces of 3D shapes. Children sort 2D and 3D shapes according to their properties. Children compare what is the same and what is different about shapes. Children use 2D and 3D shapes to create simple patterns focusing on a range of properties. Position and direction Children use the language 'full', 'half', 'quarter' and 'three-quarter' to describe turns made by shapes/objects Children should practically turn objects, shapes and themselves in different directions in order to investigate whether they	Skills: Shape Children recap 2D and 3D shapes and understand that 2D shapes and actually flat. Children also need to understand that not all same-sided shapes look the same, such as irregular 2D shapes. Children are introduced to the terms vertex and vertices. Children are exposed to examples that are symmetrical and also examples that are not. Children use a range of practical resources to explore shapes being halved along their vertical line of symmetry. Children sort shapes using key language including side, vertex and symmetrical. Children use their knowledge of the properties of 2D and 3D shapes to create patterns. Children learn that an edge is where two surfaces meet.

Children begin to use positional language known to them to describe the position of themselves, others and objects.

Language:

Shape

shape, square, oblong, rectangle, triangle, circle, cube, cuboid, cylinder, sphere

Position and direction

under, over, next to, through, up, down, forwards, backwards, above, below, inside, ontop.

can finish facing the same direction if they complete different turns.

- Children use 'left', 'right', 'forwards' and 'backwards' to describe position and direction.
- They will describe position using: 'top', 'in between', 'bottom', 'above' and 'below'

Language:

Shape

2s shape, 3d shape, cylinder, cube, cuboid, sphere, pyramind, cone, faces, orientation, straight, curved, triangles, squares, rectangles, circles, oblong, patterns, face, curved surface.

Position and direction

quarter turn, half turn, three-quarter turn, full turn, direction, left, right, forwards, backwards, top, inbetween, bottom, above and below.

Children use their knowledge of edges to help them to identify vertices on 3-D shapes.

Position and direction

- Children use language 'forwards', 'backwards', 'up', 'down', 'left' and 'right' to describe movement in a straight line.
- Children practically follow and give directions with a partner before writing directions for routes and recording routes on 2-D grids.
- Children use the language 'clockwise', 'anticlockwise', 'quarter', 'half' and 'three quarters' to describe patterns.

Language:

Shape

2D, 3D, flat, pentagon, octagon, hexagon, vertex, vertices, vertical, symmetry, face, curved surface, edge

Position and direction

quarter turn, half turn, three-quarter turn, full turn, direction, left, right, forwards, backwards, top, inbetween, bottom, above, below, clockwise, anticlockwise

SEND Provision:

If exploring direction during PE, consideration of children's physical abilities will need to be taken into account.

'Word walls' or similar to develop an understanding of new vocabulary

Coloured background on whiteboard

KIRF reinforcement

Maths Progression M	rogression Map				
	E	EYFS	Ke	y Stage 1	
ST.LUKE'S SCHOOL	Pupils should be taught to: Nursery Is not representing in the EYFS but the school will explore the skills needed to be ready for year 2 in day to day occurrences, e.g. class votes. Reception Children in Reception are working towards meeting the Early Learning Goal:		Pupils should be taught to: Year one Is not representing in the National Curriculum but the school will explore the skills needed to be ready for year 2 in day to day occurrences, e.g. class votes. Year 2 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.		
Statistics	Nursery	Reception	Year 1	Year 2	
	Skills: Children begin to realise how voting and statistics work by taking part in regular class votes. Children will take part in simple statistic collection e.g. What is the classes favourite fruit? Children are working on building up a secure number base in order to be ready to total up, sort by relevance and create simple charts in KS1. Language: vote, total, count	Skills: Children begin to realise how voting and statistics work by taking part in regular class votes. Children will take part in simple statistic collection e.g. What is the classes favourite fruit? Children become familiar with pictograms and tally charts. Children are working on building up a secure number base in order to be ready to total up, sort by relevance and create simple charts in KS1. Language: vote, total, count, tally, tally chart, pictogram.	Skills: Children will take part in simple statistic collection e.g. What is the classes favourite fruit? Children begin to realise how voting and statistics work by taking part in regular class votes. Children become familiar with pictograms and tally charts. Children are working on building up a secure number base in order to be ready to total up, sort by relevance and create simple charts in KS1. Language: vote, total, count, tally, tally chart, pictogram.	Skills: Children interpret and construct simple pictograms, tally charts, block diagrams and simple tables. Children ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity. Children ask and answer questions about totalling and comparing categorical data. Language: Vote, total, count, tally chart, block diagram, pictogram, category, sorting, data.	

SEND Provision:

'Word walls' or similar to develop an understanding of new vocabulary	
Coloured background on whiteboard	
KIRF reinforcement	