Curriculum Intent & Progression Document Mathematics

St. Mary's Catholic Voluntary Academy, Grantham

2022-23

Subject Leader: Miss Steeples

Cathy Steeples
St. Mary's Catholic Voluntary Academy, Grantham
2022-23

Mission Statement

Christ is at the centre of St. Mary's as we strive to nurture and care for all our community members by encouraging them to **Believe**, **Succeed** and **Soar** within God's love, to achieve the very best that they can, in all areas.

Our Vision

We are disciples who put our faith into action in all that we do.

We are role models who encourage others to shine and be the best version of themselves that they can be.

We are investigators who ask questions about the past, the present and the future.

We are artists who show our creativity and talents with flair and imagination.

We are storytellers who have a passion for reading and are able to communicate in many ways.

We are problem solvers who tackle tasks with an open mind and a positive approach.

We are team players who work together to achieve our goals.

We are explorers who learn new skills, embrace other cultures and value our locality and the wider world.

We **Believe**. We **Succeed**. We **Soar**.

Our Gospel Virtues

To achieve our full Christian potential, we all need to live out our Gospel Virtues: -

Love

A Christ-like love respects the talent of each person in our school.

Faith

Faith helps us to do God's will in this world.

Hope

Hope helps us to see a new life beyond our present one.

Peace

We know that if we love one another, peace will be all around us.

Mercy

We believe that mercy will be shown by the way we forgive others.

Community

We believe our community here unites us all as followers of Jesus.

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Curriculum Intent General Principles:

Below, the General Principles of our whole school curriculum intention are in black print, along with what this translates to as regards Mathematics in red:

The **General Principles** of our curriculum are that children:

- Meet Jesus through all aspects of their work. It is our intention that the children will encounter Jesus through elements of their Maths work. Children are encouraged to demonstrate the Gospel Virtues (love, faith, hope, peace, mercy & community) within Maths whilst believing, succeeding and soaring in their learning.

- Experience the challenge and enjoyment of learning. Our children are encouraged to become fluent in the fundamentals of mathematics, reason mathematically by following a line of enquiry and solve problems by applying their mathematics to a variety of routine and non-routine problems. As you walk around our school and talk to our children, you will see them enjoying learning experiences that demonstrate the love our children have for Mathematics. Our Maths lessons follow a very practical-based approach because we have adopted Teaching for Mastery across the whole school. This is underpinned by the NCETM's 5 Big Ideas[1], which includes representation and structure, mathematical thinking, variation, fluency and coherence. Children thrive on the challenge that Maths presents them, both within lessons and outside of the classroom in real-life contexts. They tackle diving, deeper and deepest activities, which provides a personalised approach to their learning. The Concrete Pictorial Abstract (CPA) approach is used when teaching children key mathematical skills and this helps to support children's mathematical understanding. As a result, the teaching of Maths takes on a very visual, auditory and hugely kinaesthetic approach to learning (VAK) ensuring that it is accessible to all learners.

- Learn within a coherent and progressive framework. As a school, in conjunction with the Mastery approach to our curriculum, which is taught from EYFS through to Year 6, we use the White Rose Maths Schemes of Learning. This is a starting point in order to develop a coherent and comprehensive conceptual pathway with the focus on the whole class advancing together. It is a progressive framework that provides opportunities for each mathematical concept to be taught in small, connected steps, building on from what pupils already know. The journey begins in EYFS, where children explore mathematical concepts through active exploration and their everyday play-based learning. It is achievable for all – we have high expectations and encourage a positive 'can do' mindset towards Mathematics in all pupils, creating learning experiences which develop children's resilience in the face of a challenge and carefully scaffolding learning so everyone can make progress.

- See clear links between different aspects of their learning. Mathematics is an interconnected subject in which the children need to be able to move fluently between representations of mathematical ideas and make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems. Therefore, Maths is not a stand-alone subject and is used, applied and developed through activities in other areas of the curriculum, where appropriate, for example in History (chronology and counting systems), Geography (directions, distances and time zones), English (speaking and listening), Science (STEM approach), PE (statistics and measurements), Music (timing and beat counting), Computing (coding instructions and calculators), Art (shape and patterns), Design Technology (baking, cooking and measurements) and MFL (vocabulary based) as well as a child's outdoor learning in the WOW area.

- Understand the purpose and value of their learning and see its relevance to their past, present and future. We aim to equip our pupils with the knowledge, skills and understanding to apply what they have learnt in the past to the present and the future. Children are encouraged to make connections between the history of our counting system (past) and its evolvement to the present day. They also consider the future of Mathematics and how it might develop in the years to come. Mathematics in the early years provides children with a solid foundation that will enable them to develop skills as they progress through their schooling and ensures children are ready for the National Curriculum across all key stages both within primary and secondary education. Mathematical concepts, are revisited, built upon and further developed. All units of work are carefully planned so that all of our children have the relevant opportunities to apply the principles of Rosenshine.

- Explore the breadth and depth of the national curriculum. The intention is that the learning goes beyond that of the National Curriculum and that areas of learning are more clearly defined. It is intended that when children leave St Mary's Catholic Voluntary Academy, they will be able to continue to develop their competence in a broad range of mathematical concepts. They will be engaged and prepared to continue mathematical learning at secondary school and beyond.

[1] This document has been created using content provided by the NCETM/Maths Hub Mastery Specialist Programme.

Curriculum Intent: MATHEMATICS (2022-23)

EYFS MATHEMATICS					
ADVENT 1 Children will…	ADVENT 2 Children will…	LENT 1 Children will…	LENT 2 Children will…	PENTECOST 1 Children will…	PENTECOST 2 Children will…
Getting to Know You Opportunities for settling in, introducing the areas of provision and getting to know the children. Key times of the day and class routines. Exploring continuous provision inside an out. Where do things belong? Positional language. [Baselines] **Just Like Me!** W1: know how to explore and match objects which are the same. W2a: know how collections can be sorted into sets based on attributes such as colour, size or shape. W2b: know how the same collection of objects can be sorted in different ways.	**It's Me 1 2 3!** W1a: know how to identify representations of 1, 2 and 3. W1b: know how to subitise or count to find out how many and make their own collections of 1, 2 and 3 objects. W1c: know how to match the number names we say to numerals and quantities. W1d: know how to count up to 3 objects in different arrangements. W2a: know that as we count, each number is one more. W2b: know that as we count back, each number is one fewer. W2c: know that circles have one curved side and triangles have three straight sides.	**Alive in 5!** W1: know that the number name zero and the numeral 0 can be used to represent this idea. W2a: know that one quantity can be more than, the same as or fewer. W2b: know the terms of full and empty. W3a: know that all numbers are made up of smaller numbers. W3b: know the terms nearly full and nearly empty. **Growing 6, 7, 8** W1a: know how the counting principles work to 6,7 and 8. W2a: know that a pair is two. W2b: know how to combine two groups to find how many altogether.	**Building 9 and 10** W1a: know how the counting principles work to 9. W2a: know how the counting principles work to 10. W3a: know number bonds to 10. W4a: know how to explore patterns which are repeated. **Consolidation**	**Find My Pattern** W1a: know double facts. W2a: know how quantities can be distributed equally. W3a: know how to explore and represent patterns within numbers to 10 (odd/ even/ double). W3b: know how to explore and represent patterns with shapes and models. **First Then Now** W1a: know how to compare quantities to 10. W2a: know that the quantity of a group can be changed by taking items away. W3a: know how to explore and represent patterns.	**To 20 and Beyond** W1a: know how to count verbally beyond 20. W2a: know to recognise the pattern of the counting system. W3a: know how to explore simple shape arrangements. **On the Move** W1a: know how to problem solve. W2a: know how to copy, create and continue a pattern. W3a: know how to use positional language to make maps and plans.

W3a: know that when making comparisons, a set can have more, the same or fewer than another set. W3b: know that objects can be compared and ordered according to their size.	W3a: know that all numbers are made up of smaller numbers. W3b: know how to use positional language. **Light and Dark** W1a: know how to count on and back to 4, including subitising. W1b: know that squares and rectangle shave 4 straight sides and 4 corners. W2a: know how to count on and back to 5, including subitising. W3a: know how to subitise and compare as they explore one more and one fewer.	W3a: know how to describe length and height using mathematical language. W3b: know how to order and sequence important times in their day.			

EYFS VOCABULARY		
Getting to Know You **Just Like Me!** Match, sort, same, different, pairs, rule, odd one out, compare, order, size, tall, long, short, large, small, balance, equal, weigh, measure, pattern, repeat	**Alive in 5!** Zero, nothing, gone, count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, number bond, mass, weight, heavy, light, heavier than, lighter than, capacity, full, empty, half full, more than, less than	**Find My Pattern** Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, match, sort, same, different, pairs, rule, odd one out, double, twice as many, equal, sharing, grouping, half, even, odd, rotate, manipulate
It's Me 1 2 3! Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, 2D shapes, circle, triangle, sides, over, under, between, around, through, on, into, next to, behind, beneath, order, repeat, patterns, on top of	**Growing 6, 7, 8** Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, pairs, explore, possibilities, length, height, , breadth, long, longer, short, shorter, tall, taller, wider, narrower, more than, less than, time, quicker, slower, earlier, later, before, after, first, now, next, today, yesterday, tomorrow, morning, afternoon, evening, day, week, hour, minutes	**First Then Now** Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, match, sort, same, different, pairs, rule, odd one out, adding more, add, plus, altogether, total, taking away, take away, minus, number bonds, part, whole, digit, 2D shapes, triangle, rectangle, sides, tangram, compose, decompose
Light and Dark Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, 2D shapes, rectangle, square, sides, time, quicker, slower, earlier, later, before, after, first, now, next, today, yesterday, tomorrow, morning, afternoon, evening, day, week, hour, minutes, night, day	**Building 9 and 10** Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, number bond, 3D shapes, cuboid, cube, cone, sphere, curved, straight, flat, pattern, ten frame	**To 20 and Beyond** Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, match, sort, same, different, pairs, rule, odd one out, tens, ones, ten frame, 2D shapes, circle, triangle, rectangle, square, sides, visualise, build
		On The Move Count, subitise, order, ordinal, compare, forwards, backwards, numerals, digit, one more, one less, equal to, more than, less than, fewer, match, sort, same, different, pairs, rule, odd one out, pattern, relationship, mapping

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Year 1 MATHEMATICS					
ADVENT 1 Children will…	**ADVENT 2** Children will…	**LENT 1** Children will…	**LENT 2** Children will…	**PENTECOST 1** Children will…	**PENTECOST 2** Children will…
Number: Place Value (within 10) L1: know how to count objects. L2: know how to represent objects. L3: know how to count, read and write forwards from any number 0 to 10. L4: know how to count, read and write backwards from any number 0 to10. L5: know how to count one more. L6: know how to count one less. L7: know how to use one-to-one correspondence to start to compare groups. L8: know how to compare groups using language such as equal, more/ greater, less/ fewer and use <, > and = symbols. L9: know how to compare numbers. L10: know how to order groups of objects and numbers.	**Number: Addition and Subtraction (within 10)** L7: know how to show addition (adding together and more). L8: know how to find a part. L9: know how to show subtraction (taking away/ how many left?/ crossing out). L10: know how to show subtraction and introduce the subtraction symbol. L11: know how to show subtraction by fining a part/ breaking apart. L12: know the 8 facts for a fact family. L13: know how to show subtraction by counting back. L14: know how to show subtraction by finding the difference. L15: know how to compare addition and subtraction statements. (A + B > C and A + B > C + D)	**Consolidation** **Number: Addition and Subtraction (within 20)** L1: know how to add by counting on. L2: know how to find and make number bonds. L3: know how to add by making 10. L4: know how to show subtraction (not crossing 10). L5: know how to show subtraction (not crossing 10). L6: know how to show subtraction (crossing 10). L7: know how to show subtraction (crossing 10). L8: know related facts. L9: know how to compare number sentences. **Number: Place Value (within 50)** L1: know numbers to 50.	**Number: Place Value (within 50)** L7: know how to order numbers within 50. L8: know how to count in 2s. L9: know how to count in 5s. **Measurement: Length and Height** L1 & 2: know how to compare lengths. L3 & 4: know how to compare heights. L5: know how to measure length (1). L6: know how to measure length (2). **Measurement: Weight and Volume** L1: know how to find out about weight and mass. L2: know how to measure mass. L3: know how to compare mass. L4: know how to find out about capacity and volume.	**Consolidation** **Number: Multiplication and Division** L1: know how to count in 2s. L2: know how to count in 5s. L3: know how to count in 10s. L4: know how to make equal groups. L5: know how to add equal groups. L6: know how to make arrays. L7: know how to make doubles. L8: know how to make equal groups – grouping. L9: know how to make equal groups – sharing. **Number: Fractions** L1: know how to find a half (1). L2: know how to find a half (2). L3: know how to find a half.	**Geometry: Position and Direction** L1: know how to describe turns. L2: know how to describe position (1). L3: know how to describe position (2). **Number: Place Value (within 100)** L1: know how to count forwards and backwards within 100. L2: know how to partition numbers. L3: know how to compare numbers (1). L4: know how to compare numbers (2). L5: know how to order numbers. L6: know how to find one more and one less. **Measurement: Money** L1: know how to recognise coins. L2: know how to recognise notes. L3: know how to count in coins.

L11: know how to use ordinal numbers. L12: know how to use the number line. **Number: Addition and Subtraction (within 10)** L1: know how to use a part-whole model. L2: know how to use the addition symbol. L3: know how to use fact families (addition facts). L4: know how to find number bonds for numbers within 10 using a systematic method. L5: know how to find number bonds to 10. L6: know how to compare number bonds.	**Geometry: Shape** L1: know how to recognise, name and sort 3D shapes. L2: know how to recognise, name and sort 2D shapes. L3: know how to make patterns with 3D and 2D shapes. **Number: Place Value (within 20)** L1: know how to count forwards and backwards, writing numbers to 20 in numerals and words. L2: know the numbers from 11 – 20. L3: know how to use tens and ones. L4: know how to count one more and one less. L5: know how to compare groups of objects and numbers. L6: know how to order groups of objects and numbers.	L2: know how to use tens and ones. L3: know how to represent numbers to 50. L4: know how to find one more and one less. L5: know how to compare objects within 50. L6: know how to compare numbers within 50.	L5: know how to measure capacity. L6: know how to compare capacity. **Consolidation and Assessment**	L4: know how to find a quarter (1). L5: know how to find a quarter (2). L6: know how to find a quarter.	**Measurement: Time** L1: know how to understand before and after. L2: know dates L3: know how to tell the time to the hour. L4: know how to tell the time to the half hour. L5: know how to write the time. L6: know how to compare time.

YEAR 1 VOCABULARY					
Number: Place Value (within 10) One, two, three, four, five, six, seven, eight, nine, ten, one more, one less, first (1st), second (2nd), third (3rd), fourth (4th), equals, less than, greater than, most, fewest	**Number: Addition and Subtraction (within 10)** One, two, three, four, five, six, seven, eight, nine, ten, add, subtract, equals, count on, count back, number bond	**Number: Addition and Subtraction (within 20)** One, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty, number bond, first, then, now, partition, add, subtract, equals	**Number: Place Value (within 50)** Tens, ones, one more, one less, less than, equal to, more than	**Number: Multiplication and Division** Count, equal groups, array, double, group equally, share equally	**Geometry: Position and Direction** Quarter turn, half turn, three-quarter turn, full turn, left, right, front, behind, below, above, top, middle, bottom, between, forwards, backwards,
Number: Addition and Subtraction (within 10) One, two, three, four, five, six, seven, eight, nine, ten, add, subtract, equals, count on, count back, number bond	**Geometry: Shape** Side, corner, vertices, vertex, curved, face, straight, 2D, 3D, pattern, square, circle, rectangle, triangle, cube, cuboid, sphere, cylinder, cone	**Number: Place Value (within 50)** Tens, ones, one more, one less, less than, equal to, more than	**Measurement: Length and Height** Taller, shorter, longer, tallest, shortest, longest, same, scale, length, height	**Number: Fractions** Half, equal parts, whole, quarter	**Number: Place Value (within 100)** Tens, ones, one more, one less, smallest, greatest, less than, equal to, more than
	Number: Place Value (within 20) One, two, three, four, five, six, seven, eight, nine, ten, eleven, twelve, thirteen, fourteen, fifteen, sixteen, seventeen, eighteen, nineteen, twenty, least, smallest, most, greatest, first, second, third, one more, one less		**Measurement: Weight and Volume** Weight, mass, scales, heavier, lighter, balanced, capacity, volume, liquid, amount, empty, nearly empty, half full, nearly full, full		**Measurement: Money** Coin, note, pound, pence, penny **Measurement: Time** First, next, finally, before, after, Monday, Tuesday, Wednesday, Thursday, Friday, Saturday, sundae, January, February, March, April, May, June, July, August, September, October, November, December

Year 2
MATHEMATICS

ADVENT 1 Children will…	ADVENT 2 Children will…	LENT 1 Children will…	LENT 2 Children will…	PENTECOST 1 Children will…	PENTECOST 2 Children will…
Number: Place Value L1: know how to count forwards and backwards within 20. L2: know how to count forwards and backwards within 50. L3: know how to count objects to 100 and read and write numbers in numerals and words. L4: know how to represent tens and one using a part-whole model. L5: know how to add tens and ones. L6: know how to use a place value chart. L7: know how to compare and order objects and numbers. L8: know how to count in 2s, 5s and 10s. L9: know how to count in 3s. **Number: Addition and Subtraction** L1: know how to find fact families to 20. L2: know how to check calculations.	**Number: Addition and Subtraction** L10: know how to add two 2-digit numbers (not crossing 10). L11: know how to add two 2-digit numbers (crossing 10). L12: know how to subtract a 2-digit number from a 2-digit number (not crossing 10). L13: know how to subtract a 2-digit number from a 2-digit number (crossing 10). L14: know bonds to 100 (tens and ones). L15: know how to add three 1-digit numbers. **Measurement: Money** L1: know how to count money in pence. L2: know how to count money in pounds. L3: know how to count money in notes and coins. L4: know how to find the total.	**Number: Multiplication and Division** L1: know how to recognise equal groups. L2: know how to make and add equal groups. L3: know how to write multiplication sentences. L4: know how to use arrays. L5: know how to make doubles (2 times table). L6: know the 5 and 10 times tables. L7: know how to make equal groups by sharing. L8: know how to make equal groups by grouping. L9: know how to divide by 2. L10: know what odd and even numbers are. L11: know how to divide by 5. L12: know how to divide by 10. **Statistics**	**Geometry: Properties of Shape** L1: know how to recognise 2D and 3D shapes. L2: know how to count sides and vertices on 2D shapes. L3: know how to draw 2D shapes. L4: know what lines of symmetry are. L5: know how to sort 2D shapes. L6: know hot count faces on 3D shapes. L7: know how to count edges on 3D shapes. L8: know how to count vertices on 3D shapes. L9: know how to sort 3D shapes. **Number: Fractions** L1: know how to make equal parts. L2: know how to recognise and find a half. L3: know how to recognise a quarter. L4: know how to find a quarter.	**Measurement: Length and Height** L1: know how to compare lengths and heights. L2: know how to measure lengths. L3: know how to measure length in cm. L4: know how to measure length in m. L5: know how to compare and order lengths. L6: know how to use the four operations with lengths. **Geometry: Position and Direction** L1: know how to describe position (1). L2: know how to describe position (2). L3: know how to describe movement. L4: know how to describe turns. L5: know how to describe movement and turns. L6: know how to make patterns with shapes.	**Measurement: Time** L1: know how to tell the time to the hour and half hour. L2: know how to tell the time using o'clock and half past. L3: know how to tell the time using quarter past and quarter to. L4: know how to tell the time to 5 minutes. L5: know the relationship between hours and days. L6: know how to find and compare durations of time. **Measurement: Mass, Capacity and Temperature** L1: know what weight and mass are. L2: know how to measure and compare mass. L3: know how to measure mass in grams. L4: know how to measure mass in kilograms.

L3: know how to compare number sentences and know related facts. L4: know bonds to 100 (tens). L5: know how to add and subtract 1s. L6: know how to find 10 more and 10 less. L7: know how to add and subtract 10s. L8: know how to add a 2-digit number and a 1-digit number (crossing 10). L9: know how to subtract (crossing 10).	L5: know how to find change. L6: know how to solve two-step problems. **Number: Multiplication and Division** L1: know how to make equal groups. L2: know how to add equal groups. L3: know how to make arrays.	L1: know how to make tally charts. L2: know how to draw pictograms (1-1). L3: know how to interpret pictograms (1-1). L4: know how to draw pictograms (2, 5 and 10). L5: know how to interpret pictograms (2, 5 and 10). L6: know how to make and interpret block diagrams.	L5: know how to find a third. L6: know what unit fractions are. L7: know what non-unit fractions are. L8: know the equivalence of ½ and 2/4. L9: know how to find three quarters.	**Consolidation and Problem Solving**	L5: know what capacity and volume are. L6: know how to measure capacity and compare volume. L7: know what millilitres are. L8: know what litres are. L9: know what temperature is. **Consolidation and Assessment**

YEAR 2 VOCABULARY					
Number: Place Value Hundreds, tens, ones, zero, place value, greater than, less than, order, partition, digit	**Measurement: Money** Pence, pound, coin, note, total, amount, change, difference, price, cost, pay, owe	**Number: Multiplication and Division** Groups, equal groups, lots of, arrays, repeated addition, multiplication, times tables	**Geometry: Properties of Shape** Two-dimensional (2D), three-dimensional (3D), flat, solid, corner, apex, vertex, vertices, side, edge, face, curved, straight, round, line of symmetry, vertical, pattern, pentagon, hexagon, quadrilateral, triangular prism, square-based pyramid	**Measurement: Length and Height** Length, long, short, height, tall, measure, ruler, tape measure, metre stick, centimetre (cm), metre (m), compare, order	**Measurement: Time** Time, clock, hours, minutes, hand, o'clock, half past, quarter past, quarter to, five minutes, duration, shorter, longer
Number: Addition and Subtraction Add, total, make, plus, sum, more, altogether, difference, leave, subtract, difference between, less, minus, take away, mentally, orally, column addition, column subtraction, estimate, inverse operation, solve problems, number facts	**Statistics** Data, interpret, key, tally chart, pictogram, block diagram, table, total, compare, symbol	**Number: Fractions** Fraction, part, whole, equal, share, half, quarter, third, equivalent, numerator, denominator	**Geometry: Position and Direction** Forwards, backwards, left, right, north, south, east, west, quarter turn, half turn, three-quarter, turn, clockwise, anticlockwise, pattern, sequence	**Measurement: Mass, Capacity and Temperature** Mass, gram, kilogram, lighter, heavier, capacity, volume, millilitre, litre, temperature, Celsius, degrees	
	Number: Multiplication and Division Groups, equal groups, lots of, arrays, repeated addition, multiplication, times tables				

Year 3 MATHEMATICS					
ADVENT 1 Children will…	**ADVENT 2** Children will…	**LENT 1** Children will…	**LENT 2** Children will…	**PENTECOST 1** Children will…	**PENTECOST 2** Children will…
Number: Place Value L1: know how to represent numbers to 100. L2: know how to use tens and ones using addition. L3: know how to represent numbers to 1000. L4: know the value of 100s, 10s and 1s. L5: know how to use a number line to 1000. L6: know how to find 1, 10 and 100 more or less than a given number. L7: know how to compare objects and numbers to 1000. L8: know how to order numbers. L9: know how to counts in 50s. **Number: Addition and Subtraction** L1: know how to add and subtract multiples of 100. L2: know how to add and subtract 3-digit and	**Number: Addition and Subtraction** L10: know how to subtract a 2-digit number from a 3-digit number (crossing 10 or 100) L11: know how to add two 3-digit numbers (not crossing 10 or 100). L12: know how to add two 3-digit numbers (crossing 10 or 100). L13: know how to subtract a 3-digit number from a 3-digit number (no exchange). L14: know how to subtract a 3-digit number from a 3-digit number (exchange). L15: know how to estimate and check answers to calculations. **Number: Multiplication and Division** L1: know how to multiply using equal groups.	**Number: Multiplication and Division** L1: know how to consolidate 2, 4 and 8 times tables. L2: know how to compare statements. L3: know how to find related calculations. L4: know how to multiply 2-digits by 1-digit (1). L5: know how to multiply 2-digits by 1-digit (2). L6: know how to divide 2-digits by 1-digit (1). L7: know how to divide 2-digits by 1-digit (2). L8: know how to scale numbers. L9: know how to find how many ways you can make a number. **Measurement: Money** L1: know how to count money in pounds and pence. L2: know how to convert pounds and pence.	**Measurement: Perimeter** L1: know how to measure length. L2: know how to measure length (m). L3: know how to find equivalent lengths (m and cm). L4: know how to find equivalent lengths (mm and cm). L5: know how to compare lengths. L6: know how to add lengths. L7: know how to subtract lengths. L8: know how to measure perimeter. L9: know how to calculate perimeter. **Number: Fractions** L1: know how to recognise and find a half. L2: know how to recognise and find a quarter. L3: know how to recognise and find a third.	**Number: Fractions** L1: know how to make the whole. L2: know how to count in tenths. L3: know how to convert tenths into decimals. L4: know how to represent fractions on a number line. L5: know to find fractions of a set of objects. L6: know how to find equivalent fractions. L7: know how to compare fractions. L8: know how to order fractions. L9: know how to add and subtract fractions (same denominator). **Measurement: Time** L1: know how to tell the time (o'clock/ half past/ quarter past/ quarter to). L2: know months and years. L3: know how to tell the time to 5 minutes.	**Geometry: Properties of Shape** L1: know what turns and angles are. L2: know how to find right angles in shapes. L3: know how to compare angles. L4: know what horizontal and vertical mean. L5: know what parallel and perpendicular mean. L6: know how to recognise and describe 2D and 3D shapes. **Measurement: Mass and Capacity** L1: know how to compare mass. L2: know how to measure mass. L3: know how to compare mass. L4: know how to add and subtract mass. L5: know how to compare volume. L6: know how to measure capacity.

1-digit numbers (not crossing 10). L3: know how to add 2-digit/ 3-digit and 1-digit numbers (crossing 10). L4: know how to subtract a 1-digit number from a 2-digit/ 3-digit number (crossing 10). L5: know how to add and subtract 3-digit and 2-digit numbers (not crossing 100). L6: know how to add and subtract 3-digit and 2-digit numbers (crossing 100). L7: know how to add and subtract 100s, spotting patterns. L8: know how to add a 2-digit number and 3-digit numbers (crossing 10 or 100). L9: know how to subtract a 2-digit number from a 3-digit number (crossing 10 or 100)	L2: know the multiplication symbol and how to use arrays. L3: know the 2 times table and divide by 2. L4: know the 5 times table and divide by 5. L5: know how to make equal groups using sharing. L6: know how to make equal groups using grouping. L7: know how to divide by 10. L8: know how to multiply by 3. L9: know how to divide by 3. L10: know how to multiply and divide by 4. L11: know how to multiply by 8. L12: know how to divide by 8.	L3: know how to add money. L4: know how to subtract money and give change. **Statistics** L1: know how to make tally charts. L2: know how to draw pictograms (2, 5 and 10). L3: know how to interpret pictograms (2, 5 and 10). L4: know how to explore pictograms. L5: know how to explore bar charts. L6: know how to explore tables.	L4: know the difference between unit and non-unit fractions. L5: know the equivalence of ½ and 2/4. L6: know how to count in fractions. **Consolidation and Assessment**	L4: know how to tell the time to the minute. L5: know how to use am and pm. L6: know how to use the 24-hour clock. L7: know how to find and compare durations. L8: know how to find start and end times. L9: know how to measure time in seconds.	L7: know how to compare capacity. L8: know how to add and subtract capacity. L9: know what temperature is. **Consolidation and Assessment**

YEAR 3 VOCABULARY					
Number: Place Value Hundreds, tens, ones, zero, greater than, less than, order, more, less, partition, digit	**Number: Addition and Subtraction** Add, total, plus, sum, more, altogether, difference, subtract, less, minus, take away, column addition, column subtraction, exchange, estimate, inverse operation, solve problems, number facts, place value	**Number: Multiplication and Division** Times tables, multiply by, divide by, array, fact families, regrouping	**Measurement: Perimeter** Metre (m), centimetre (cm), millimetre (mm), height, length, width, perimeter, further, furthest, higher, highest, longer, longest, shorter, shortest, taller, tallest	**Number: Fractions** Numerator, denominator, unit fraction, non-unit fraction, equivalent, halves, thirds, quarters, fifths, sixths, eighths, tenths, decimal tenths	**Geometry: Properties of Shape** Quarter turn, half turn, three-quarter turn, angle, right angle, acute, obtuse, horizontal, vertical, parallel, perpendicular, polygon, two-dimensional, three-dimensional, flat face, curved surface, edge, curved edge, vertex, vertices, apex, heptagon, octagon, tetrahedron
Number: Addition and Subtraction Add, total, plus, sum, more, altogether, difference, subtract, less, minus, take away, column addition, column subtraction, exchange, estimate, inverse operation, solve problems, number facts, place value	**Number: Multiplication and Division** Times tables, multiply by, divide by, array, fact families, regrouping	**Measurement: Money** Amount, change, coin, combinations, convert, note, pence, penny, pounds, value	**Number: Fractions** Numerator, denominator, unit fraction, non-unit fraction, equivalent, halves, thirds, quarters, fifths, sixths, eighths, tenths, decimal tenths	**Measurement: Time** 12-hour time, 24-hour time, roman numerals, analogue, digital, hours, minutes, seconds, o'clock, half past, quarter past, quarter to, midday, midnight, noon	**Measurement: Mass and Capacity** Mass, gram, kilogram, capacity, volume, millilitre, litre, lighter, heavier
		Statistics Data, pictogram, symbol, bar chart, horizontal axis, vertical axis, axes, scale, intervals, table, interpret			

Cathy Steeples
St. Mary's Catholic Voluntary Academy, Grantham
2022-23

Year 4
MATHEMATICS

ADVENT 1 Children will…	ADVENT 2 Children will…	LENT 1 Children will…	LENT 2 Children will…	PENTECOST 1 Children will…	PENTECOST 2 Children will…
Number: Place Value L1: know how to represent numbers to 1000. L2: know how to use a number line to 1000. L3: know how to round to the nearest 10. L4: know how to round to the nearest 100. L5: know how to count in 1000s. L6: know how to represent 1000s, 100s, 10s and 1s using partitioning. L7: know how to use a number line to 10,000. L8: know how to find 1, 10, 100 and 1000 more or less. L9: know how to compare and order numbers. L10: know how to round to the nearest 1000. L11: know to recognise negative numbers. L12: know Roman Numerals to 100. **Number: Addition and Subtraction**	**Measurement: Length and Perimeter** L1: know how to calculate equivalent lengths (m and cm/ mm and cm) L2: know how to calculate and convert kilometres. L3: know how to add and subtract lengths. L4: know how to measure perimeter. L5: know how to find perimeter on a grid. L6: know how to measure the perimeter of a rectangle/ rectilinear shape. **Number: Multiplication and Division** L1: know how to multiply by 10 and 100. L2: know how to divide by 10. L3: know how to divide by 100. L4: know how to multiply by 1 and 0. L5: know how to divide by 1 and itself.	**Number: Multiplication and Division** L1: know the 11 and 12 times table. L2: know how to multiply 3 numbers. L3: know how to find factor pairs. L4: know how to use written methods. L5: know how to multiply 2-digits by 1-digit. L6: know how to multiply 3-digits by 1-digit. L7: know how to divide 2-digits by 1-digit (1). L8: know how to divide 2-digits by 1-digit (2). L9: know how to divide 3-digits by 1-digit. **Measurement: Area** L1: know what area is. L2: know how counting squares can help to find the area. L3: know how to make shapes. **Number: Fractions**	**Number: Fractions** L7: know how to subtract fractions. L8: know how to subtract 2 fractions. L9: know how to subtract from whole amounts. L10: know how to find fractions of a set of objects. L11: know how to calculate fractions of a quantity. L12: know how to show problems that involve calculating quantities. **Number: Decimals** L1: know how recognise tenths and hundredths. L2: know what tenths are as decimals. L3: know how to place tenths on a place value grid and a number line. L4: know how to divide 1-digit numbers by 10. L5: know how to divide 2-digit numbers by 10. L6: know what hundredths are.	**Number: Decimals** L1: know bonds to 100 and 100. L2: know how to make a whole. L3: know how to write decimals. L4: know how to compare and order decimals. L5: know how to round decimals. L6: know what halves and quarters are as decimals. **Measurement: Money** L1: know how to count money in pounds and pence. L2: know how to order and estimate money. L3: know how to convert pounds and pence. L4: know how to add money. L5: know how to subtract money and find change. L6: know how to use the four operations	**Statistics** L1: know how to interpret charts (comparison, sum and difference). L2: know what a line graph is. L3: know how to interpret a line graph. **Geometry: Properties of Shape** L1: know what turns and angles are, including right angles in shapes. L2: know how to compare and identify angles. L3: know how to compare and order angles. L4: know how to recognise and describe 2D shapes. L5: know the properties of different triangles. L6: know the properties of quadrilaterals. L7: know what horizontal and vertical means.

L1: know how to add and subtract 1s, 10s, 100s and 1000s. L2: know how to add two 3-digit or 4-digit numbers (not crossing 10 or 100). L3: know how to add two 4-digit numbers with more than one exchange. L4: know how to subtract a 3-digit number from a 3-digit number and a 4-digit number from a 4-digit number (no exchange). L5: know how to subtract a 3-digit number from a 3-digit number with exchange. L6: know how to subtract two 4-digit numbers with one exchange. L7: know how to subtract two 4-digit numbers with one exchange. L8: know what is efficient subtraction. L9: know how to estimate answers and check strategies.	L6: know how to multiply and divide by 3 (times table and division facts). L7: know how to multiply and divide by 6 (times table and division facts). L8: know how to multiply and divide by 9 (times table and division facts). L9: know how to multiply and divide by 7 (times table and division facts).	L1: know what unit and non-unit fractions are. L2: know what tenths are and how to count in tenths. L3: know how to find equivalent fractions (1). L4: know how to find equivalent fractions (2). L5: know how to find fractions greater than 1. L6: know how to add 2 or more fractions.	L7: know what hundredths are as decimals. L8: know how to place hundredths on a place value grid. L9: know how to divide 1 or 2-digits by 100. **Consolidation and Assessment**	when working with money. **Measurement: Time** L1: know how to tell the time to 5 minutes. L2: know how to tell the time to the minute. L3: know how to use am and pm and tell the time using the 24-hour clock. L4: know the relationship between hours, minutes and seconds as well as years, months, weeks and days. L5: know how to convert time from analogue to digital (12-hour). L6: know how to convert time from analogue to digital (24-hour).	L8: know how to find lines of symmetry. L9: know how to complete a symmetric figure. **Geometry: Position and Direction** L1: know how to describe position. L2: know how to draw and move on a grid. L3: know how to describe movement on a grid. **Consolidation and Assessment**

YEAR 4 VOCABULARY					
Number: Place Value Thousands, hundreds, tens, ones, zero, greater than, less than, order, round, rounded to, negative number, partition, digit, roman numeral	**Measurement: Length and Perimeter** Kilometres, metres, centimetres, millimetres, distance, length, width, rectilinear, right angle	**Number: Multiplication and Division** Multiply, groups of, lots of, times, divide, share, remainder, factor, multiple, product, short multiplication, short division	**Number: Fractions** Numerator, denominator, unit fraction, non-unit fraction, equivalent, quantities, whole, halves, thirds, quarters, fifths, sixths, sevenths, eighths, ninths, tenths, elevenths, twelfths	**Number: Decimals** Tenths, hundredths, decimal tenths, decimal hundredths, decimal equivalents, part-whole model, rounding, decimal point, place value	**Statistics** Bar chart, pictogram, frequency table, tally chart, discrete data, continuous data, time graph, sum, difference, comparison, interpret
Number: Addition and Subtraction Add, total, plus, sum, more, altogether, difference, subtract, less, minus, take away, mentally, orally, column addition, column subtraction, exchange, estimate, inverse operation, solve problems	**Number: Multiplication and Division** Multiply, groups of, lots of, times, divide, share, remainder, factor, multiple, product, short multiplication, short division	**Measurement: Area** Kilometres, metres, centimetres, millimetres, squares, space, length, width, rectilinear	**Number: Decimals** Tenths, hundredths, decimal tenths, decimal hundredths, decimal equivalents, part-whole model, rounding, decimal point, place value	**Measurement: Money** Amount, change, combinations, estimate, decimal, pence, penny, pounds, round, value, convert	**Geometry: Properties of Shape** Angle, right angle, acute, obtuse, horizontal, vertical, diagonal, parallel, perpendicular, two-dimensional, polygon, line of symmetry, reflection, mirror line, isosceles, equilateral, scalene, quadrilateral, rhombus, parallelogram, trapezium
		Number: Fractions Numerator, denominator, unit fraction, non-unit fraction, equivalent, quantities, whole, halves, thirds, quarters, fifths, sixths, sevenths, eighths, ninths, tenths, elevenths, twelfths		**Measurement: Time** 12-hour time, 24-hour time, roman numerals, analogue, digital, hours, minutes, seconds, o'clock, half past, quarter past, quarter to, midday, midnight, noon, a.m., p.m.	**Geometry: Position and Direction** Coordinate, quadrant, x-axis, y-axis, translation, vertex, vertices

Year 5
MATHEMATICS

ADVENT 1 Children will…	ADVENT 2 Children will…	LENT 1 Children will…	LENT 2 Children will…	PENTECOST 1 Children will…	PENTECOST 2 Children will…
Number: Place Value L1: know how to represent numbers to 10,000. L2: know how to round to the nearest 10, 100 and 1000. L3: know how to represent, compare and order numbers to 100,000. L4: know how to round numbers within 100,000. L5: know how to represent numbers to a million. L6: know how to compare and order numbers to one million. L7: know how to round numbers to one million. L8: know what negative numbers are. L9: know Roman Numerals to 1,000. **Number: Addition and Subtraction** L1: know how to add two 4-digit numbers (more than one exchange).	**Statistics** L4: know how to read and interpret tables. L5: know how to read and interpret two-way tables. L6: know how to read and interpret timetables. **Number: Multiplication and Division** L1: know what multiples and factors are. L2: know what common factors are. L3: know what prime numbers are. L4: know what square and cube numbers are. L5: know how to multiply by 10 and 100. L6: know how to multiply by 10, 100 and 1,000. L7: know how to divide by 10 and 100. L8: know how to divide by 10, 100 and 1000. L9: know how to find multiples of 10, 100 and 1,000.	**Number: Multiplication and Division** L1: know how to multiply 2 and 3-digits by 1-digit. L2: know how to multiply 4-digits by 1-digit. L3: know how to multiply 2-digits by 2-digits, including the are model. L4: know how to multiply 3-digits by 2-digits. L5: know how to multiply 4-digits by 2-digits. L6: know how to divide 2-digits by 1-digit. L7: know how to divide 3-digits by 1-digit. L8: know how to divide 4-digits by 1-digit. L9: know how to divide with remainders. **Number: Fractions** L1: know what a fraction is. L2: know how to find equivalent fractions.	**Number: Fractions** L10: know how to add mixed numbers. L11: know how to subtract fractions. L12: know how to subtract mixed numbers. L13: know how to subtract 2 mixed numbers. L14: know how to multiply unit fractions by an integer. L15: know how to multiply non-unit fractions by an integer. L16: know how to multiply mixed numbers by integers. L17: know how to calculate fractions of a quantity or an amount. L18: know how use fractions as operators. **Number: Decimals and Percentages** L1: know how to represent numbers with up to 2 decimal places.	**Consolidation** **Number: Decimals** L1: know how to add and subtract decimals within 1. L2: know how to add decimals (crossing the whole). L3: know how to add and subtract decimals with the same number of decimal places. L4: know how to add decimals with a different number of decimal places. L5: know how to subtract decimals with a different number of decimal places. L6: know how to add and subtract wholes and decimals. L7: know how to complete decimal sequences. L8: know how to multiply decimals by 10, 100 and 1,000. L9: know how to divide decimals by 10, 100 and 1,000.	**Geometry: Properties of Shape** L7: know the properties of different triangles and quadrilaterals. L8: know how to calculate lengths and angles in shapes. L9: know the different between regular and irregular polygons. **Geometry: Position and Direction** L1: know how to describe position and draw on a grid. L2: know how to describe the position in the first quadrant. L3: know what translation is and complete it with co-ordinates. L4: know how to find lines of symmetry and complete a symmetric figure. L5: know what reflection is.

Cathy Steeples
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L2: know how to add whole numbers with more than 4 digits (column method). L3: know how to subtract two 4-digit numbers (more than one exchange). L4: know how to subtract whole numbers with more than 4 digits (column method). L5: know how to round to estimate and use the inverse operations (addition and subtraction). L6: know how to solve multi-step addition and subtraction problems. **Statistics** L1: know how to interpret charts (comparison, sum and difference). L2: know what a line graph is and be able to read and interpret them. L3: know how to draw line graphs and use them to solve problems.	**Measurement: Perimeter and Area** L1: know how to measure and find the perimeter on a grid. L2: know how to measure the perimeter of a rectangle/ rectilinear shape. L3: know how to calculate perimeter. L4: know how to count squares to find the area of rectangles. L5: know how to find the area of compound shapes. L6: know how to find the area of irregular shapes.	L3: know how to find fractions greater than 1. L4: know how to convert improper fractions to mixed numbers. L5: know how to convert mixed numbers to improper fractions. L6: know how to compare and order fractions less than and greater than 1. L7: know how to add and subtract fractions. L8: know how to add fractions within 1. L9: know how to add 3 or more fractions.	L2: know how to represent decimals as fractions. L3: know what thousandths are and represent them as decimals. L4: know how to round, compare and order decimals. L5: know what percentages are. L6: know the relationship between fractions, decimals and percentages. **Consolidation and Assessment**	**Geometry: Properties of Shape** L1: know how to identify, compare and order angles. L2: know how to measure angles in degrees. L3: know how to measure with a protractor. L4: know how to draw lines and angles accurately. L5: know how to calculate angles on a straight line. L6: know how to calculate angles around a point.	L6: know how to complete translation with co-ordinates. **Measurement: Converting Units** L1: know how to convert kilograms and kilometres. L2: know how to convert millimetres and millilitres, L3: know what metric units are. L4: know what imperial units are. L5: know how to convert units of time. L6: know how to read and interpret timetables. **Measurement: Volume** L1: know what volume is. L2: know how to compare and estimate volume. L3: know how to estimate capacity.

YEAR 5 VOCABULARY					
Number: Place Value Millions, thousands, hundreds, tens, ones, zero, greater than, less than, order, round, rounded, negative number, partition, digit, interval, sequence, linear sequence	**Statistics** Axis, continuous data, horizontal, data, interpret, label, line graph, maximum value, minimum value, pattern, predict, relationship, represent, scale, survey, table, tally, timetable, vertical, x-axis, y-axis	**Number: Multiplication and Division** Multiply, groups of , lots of, times, divide, share, remainder, factor, multiple, product, short multiplication, long multiplication, short division, short multiplication, short division	**Number: Fractions** Numerator, denominator, unit fraction, non-unit fraction, whole, equivalent, mixed number, improper fraction, simplest form, multiple, common denominator, common numerator	**Number: Decimals** Tenths, hundredths, decimal tenths, decimal hundredths, decimal equivalents, part-whole model, rounding, decimal point	**Geometry: Properties of Shape** Angle, right angle, acute, obtuse, reflex, protractor, horizontal, vertical, parallel, perpendicular, polygon, regular, irregular, two-dimensional, three-dimensional, flat face, curved surface, edge, curved edge, vertex, apex, net, pentagonal prism, hexagonal prism, octagonal prism, octahedron
Number: Addition and Subtraction Add, total, make, plus, sum, more, altogether, difference, subtract, less, minus, take away, column addition, column subtraction, estimate, inverse operation, number facts, complex					
Statistics Axis, continuous data, horizontal, data, interpret, label, line graph, maximum value, minimum value, pattern, predict, relationship, represent, scale, survey, table, tally, timetable, vertical, x-axis, y-axis	**Number: Multiplication and Division** Multiply, groups of , lots of, times, divide, share, remainder, factor, multiple, product, squared, cubed, short multiplication, short division	**Number: Fractions** Numerator, denominator, unit fraction, non-unit fraction, whole, equivalent, mixed number, improper fraction, simplest form, multiple, common denominator, common numerator	**Number: Decimals and Percentages** Decimal place, decimal fraction, equivalent fraction, tenth, sharing, partitioning, exchanging, hundredth, thousandth, equal to, remainder, grouping, per cent (%) = out of 100, equivalent fraction, equivalent decimal, convert, compare, order, the whole	**Geometry: Properties of Shape** Angle, right angle, acute, obtuse, reflex, protractor, horizontal, vertical, parallel, perpendicular, polygon, regular, irregular, two-dimensional, three-dimensional, flat face, curved surface, edge, curved edge, vertex, apex, net, pentagonal prism, hexagonal prism, octagonal prism, octahedron	**Geometry: Position and Direction** Coordinate, quadrant, x-axis, y-axis, reflection, mirror line, translation, horizontal, vertical
	Measurement: Perimeter and Area Metre kilometre, length, width, rectangle, rectilinear, dimensions, Squared units (m²)				**Measurement: Converting Units** Mass, gram, kilogram, capacity, volume, millilitre, centilitre, litre, millimetre, centimetre, kilometre
					Measurement: Volume Cubed, area, cross-section, prism, cube, cuboid, face, length, height, width, depth

Year 6 MATHEMATICS					
ADVENT 1 Children will…	**ADVENT 2** Children will…	**LENT 1** Children will…	**LENT 2** Children will…	**PENTECOST 1** Children will…	**PENTECOST 2** Children will…
Number: Place Value L1: know numbers to 10,000 and 100,000. L2: know numbers to a million and ten million. L3: know how to compare and order any number. L4: know how to round numbers to 10, 100 and 1000. L5: know how to round any number. L6: know negative numbers. **Number: Addition, Subtraction, Multiplication and Division** L1: know how to add and subtract whole numbers with more than 4 digits. L2: know how to solve multi-step addition and subtraction problems. L3: know how to add and subtract integers. L4: know how to multiply 4-digits by 1-digit.	**Number: Addition, Subtraction, Multiplication and Division** L13: know prime numbers to 100. L14: know square and cube numbers. L15: know the order of operations. **Number: Fractions** L1: know equivalent fractions. L2: know how to simplify fractions. L3: know how to convert from improper fractions to mixed numbers and vice versa. L4: know how to place fractions on a number line. L5: know how to compare and order fractions (denominator and numerator). L6: know how to add and subtract fractions. L7: know how to add and subtract mixed numbers.	**Number: Decimals** L1: know decimals up to 2 decimal places. L2: know how to record numbers to three decimal places. L3: know multiply and divide by 10, 100 and 1000. L4: know multiply and divide decimals by integers. L5: know how to convert decimals to fractions. L6: know how to convert fractions to decimals. **Number: Percentages** L1: know how to understand percentages. L2: know how to convert fractions to percentages. L3: know how to find equivalent fractions, decimals and percentages. L4: know how to order fractions, decimals and percentages.	**Measurement: Converting Units** L1: know how to convert between and calculate metric measures. L2: know how to convert between miles and kilometres. L3: know what imperial measures are. **Measurement: Perimeter, Area and Volume** L1: know which shapes have the same area. L2: know what area and perimeter are. L3: know how to find the area of a triangle. L4: know how to find the area of a parallelogram. L5: know what volume is (counting cubes). L6: know how to find the volume of a cuboid. **Number: Ratio** L1: know how to use ratio language.	**Statistics** L1: know how to read and interpret line graphs. L2: know how to draw line graphs. L3: know how to illustrate and name parts of a circle. L4: know how to read and interpret pie charts (percentages). L5: know how to draw pie charts. L6: know how to calculate the mean. **Geometry: Properties of Shape** L1: know how to measure with a protractor. L2: know how to draw lines and angles accurately. L3: know how to calculate angles on a straight line and around a point. L4: know how to calculate vertically opposite angles.	**Themed Projects**

L5: know how to multiply 2-digits by 2-digits (area model). L6: know how to multiply 3-digits by 2-digits. L7: know how to multiply a 4-digit number by 2-digit number. L8: know how to divide 4-digits by 1-digit (including remainders). L9: know how to use the short division written method. L10: know how to use the long division written method. L11: know what factors are. L12: know what common factors and multiples are.	L8: know how to add and subtract fractions. L9: know how to multiply by integers. L10: know how to multiply by fractions. L11: know how to divide fractions by integers. L12: know how to find fractions of an amount. **Geometry: Position and Direction** L1: know what the first quadrant and all four quadrants are. L2: know how to complete translations. L3: know how to complete reflections.	L5: know how to find a percentage of an amount. L6: know how to find percentages (missing values). **Number: Algebra** L1: know how to find a rule (one step and two step). L2: know how to form expressions. L3: know how to complete substitution. L4: know how to form equations. L5: know how to solve one-step and two-step equations. L6: know how to find pairs of values.	L2: know how ratio and fractions are connected. L3: know what the ratio symbol is and calculate ratio. L4: know how to use scale factors. L5: know how to calculate scale factors. L6: know how to solve ratio and proportion problems. **Consolidation and Assessment**	L5: know how to calculate angles in a triangle (special cases/ missing angles). L6: know how to calculate angles in special quadrilaterals. L7: know how to calculate angle sin regular polygons. L8: know how to draw shapes accurately. L9: know how to draw nets of 3D shapes. **Consolidation**	

Number: Place Value	Number: Fractions	Number: Decimals	Measurement: Converting Units	Statistics
Ten million, millions, thousands, hundreds, tens, ones, zero, greater than, less than, order, round, rounded, negative number, partition, digit, interval, sequence, linear sequence	Numerator, denominator, proper fraction, improper fraction, factor, highest common multiple, lowest common multiple, equivalents, common numerator, common denominator, decimal equivalent, simplify, simplest form, mixed number, whole number	Decimal place, decimal fraction, recurring decimal, equivalent fraction, tenth, sharing, partitioning, exchanging, rounding to 3d.p., hundredth, thousandth, equal to, remainder, grouping	Mass, gram, kilogram, capacity, volume, millilitre, litre, millimetre, centimetre, metre, kilometre, foot, inch, ounce, pound, stone, pint, gallon	Bar chart, pictogram, frequency table, tally chart, pie chart, discrete data, continuous data, line graph, sum, difference, comparison, interpret, mean average
Number: Addition, Subtraction, Multiplication and Division Add, total, make, plus, sum, more, altogether, difference, leave, subtract, difference between, less, minus, take away, mentally, orally, column addition, column subtraction, estimate, inverse operation, solve problem, number facts, complex, multiply, groups of , lots of, times, divide, share, remainder, factor, multiple, product, squared, cubed, prime, short multiplication, long multiplication, short division, brackets, BODMAS		**Number: Percentages** Per cent (%) = out of 100, discount, equivalent fraction, equivalent decimal, convert, compare, order, the whole	**Measurement: Perimeter, Area and Volume** Squared units (m^2), Cubic units (cm^3), cuboid, width, length, rectangle, rectilinear, parallelogram, perpendicular height	**Geometry: Properties of Shape** Angle, right angle, acute, obtuse, reflex, protractor, horizontal, vertical, parallel, perpendicular, polygon, regular, irregular, two-dimensional, three-dimensional, flat face, curved surface, edge, curved edge, vertex, vertices, apex, radium, diameter, circumference
	Geometry: Position and Direction Translate, translation, reflect, reflection, up, down, right, left, coordinates, quadrant, x-axis, y-axis	**Number: Algebra** Term to term rule, variable, unknown, expression, equation, formula, one-step equation, two-step equation, substitution, pair of unknowns, enumerate	**Number: Ratio** Proportion, for every __, there are __, part, whole, scale factor, enlargement, similar shapes, length, width, perimeter	