Our Lady's Catholic Primary School – Maths Long Term Plan

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Early Years	**Composition:** identifying the whole and non-wholes, identifying 2 parts, verbalising addition and subtraction facts for 2 and 3 with or without representations. Parts and wholes within 3, 4 and 5 within a context **Cardinality**: Number names from 5 – 10, counting forwards and backwards, naming representations **Comparison:** Recite number names – forwards and backwards to 10, compare size of groups/object sizes, 1 more and 1 less to 4, **Pattern**: verbalise addition and subtraction facts to 2 and 3 – with and without representation **Shape:** Comparing group sizes, experiencing different viewpoints, one more and one less to 5, representing spatial relationships **Measure:** As above in the context of measure – vocabulary includes light, lighter, long, longest etc		**Composition:** identifying the whole and non-wholes, identifying 2 parts, verbalising addition and subtraction facts to 5 with or without representations. Parts and wholes within 5 in a context **Cardinality:** recite number names forwards and backwards to 20, counting objects, continuing a sequence **Comparison:** Recite number names – forwards and backwards to 20, compare size of groups/object sizes, 1 more and 1 less to 8. **Pattern:** verbalise addition and subtraction facts up to 5 – with and without representation, copying and continuing patterns, finding mistakes in a pattern, make patterns **Shape:** Comparing group sizes, in a context and identify similarities, showing awareness of properties of 2D and 3D shapes **Measure:** As above in the context of measure – revisiting vocabulary for height, length, weight and capacity, comparing – recognise relationship between the size and the unit		**Composition:** identifying the whole and non-wholes, identifying 2 parts, verbalising addition and subtraction facts to 5 with or without representations. Parts and wholes within 5 in a context, verbalise double facts to 10 – with and without representations, finding related facts, partitioning **Cardinality:** recite number names forwards and backwards to 30, counting objects, continuing a sequence, identify odd numbers **Comparison:** Recite number names – forwards and backwards to 30, less than and more than, 1 more and 1 less to 10 **Pattern:** verbalise addition and subtraction facts up to 5 – with and without representation, copying and continuing patterns, finding mistakes in a pattern, make patterns, verbalise double facts to 10 **Shape:** comparing collections, less than/more than, describing and naming shapes and their properties, relationships between shapes, 1 more/1 less in shape **Measure:** Counting forwards and backwards up to 30 including time context, Sequencing events, experience time durations	
Year 1	**Transition from EY:** Counting to 20, ordering numbers, 1 more and 1 less **Place Value:** read and write numbers and counting forwards and backwards in ones and twos **Calculation:** number bonds up to 10	**Calculation:** Subtracting from 5 up to 10, number bonds and related facts **Geometry:** Identifying 2D and 3D shapes, creating shapes, exploring real life shapes, position and turns **Money:** Recognising coins, values of coins to 10p to then £2	**Place Value:** Reading and writing numbers, counting from 70 in jumps of 1, 2, 5 and 10, identifying and representing numbers, ordering and comparing numbers to 70 **Calculation:** Number bonds, finding missing numbers, difference, adding numbers to 10 and the related subtraction facts (11-20)	**Statistics:** Sorting shapes, subsets, combining sets into sections, block graphs and bar charts **Calculation:** Adding and subtracting 11 – 15, adding and subtracting single digit numbers 16 – 18 and then 11 – 19, number bonds to 20 and related facts **Money:** Coin recognition, comparing and ordering coins, adding and subtracting amounts, recognising notes	**Place Value:** Skip counting and representing numbers, reading numbers to 100 and writing numbers to twenty, counting to 100 in 2s, counting in 2s, 5s and 10s, identify and represent numbers, partitioning 80, 90 and 100. **Calculation:** Identifying groups (equal and unequal), repeated addition, arrays, multiplication stories, doubles, sharing **Fractions:** ½ and finding 1/2 , ¼ and finding ¼ **Length and Height:** Developing vocabulary, measuring non-standard units, measuring with cms.	**Mass and Volume:** Developing vocabulary, measuring with a balance, comparing amounts, measuring capacity and describing volume with fractions **Time:** time to 1 hour, half past, language of time and sequencing **Patterns and Relationships:** odd and even, finding odd one out, multiplication through a story, adding and subtracting odd and even Transition units for Year 2 to be revised and selected as appropriate
Year 2	**Place value:** Reading and writing numbers to 100, partitioning. Identify and represent numbers, comparing and ordering numbers **Additon and Subtraction:** Number bonds to 20, adding/subtracting 2-digit and 1-digit – no exchange, adding and subtracting multiples of 10, using number bonds to add, adding and subtracting 1-digit with exchange – make 10 and then. **Multiplication and division:** equal and unequal groups, x5, x 10 and x2, division – sharing by 2 and equal groups, odd and even numbers, dividing by 5 and 10	**Time:** O'clock, half past, ¼ past and to, 5 mins and to past, different ways to say the time, minutes, hours and days, durations **Fractions:** equal part, ½ and ¼, 1/3, naming fractions, comparing and ordering, finding half **Geometry:** 2D shapes and drawing them, symmetry, positioning and turning shapes, 3D shapes	**Money:** Recognise coins and notes, addition of amounts to 20p, counting and comparing money, finding total amounts – make 10 and then, equivalence, change. **Place Value:** Reading and writing numbers to 150, counting in 10s and 5s, counting forward and back in 3s, identify and represent numbers, ordering and comparing **Addition and Subtraction:** Adding and subtracting up to 2-digits using expanded and then compact formal method, make previous and next ten.	**Multiplication and Division**: x10 and related facts, problems in context, x5 and dividing by 5 and 2 **Fractions:** finding ¼ , 1/3 and ½ and quarters **Statistics:** Sorting data, venn diagrams, pictograms, bar charts, interpreting bar charts in a context **Place Value:** identifying and representing numbers, reading and writing numbers to 200, counting, ordering and comparing numbers, partitioning	**Calculation:** Adding subtracting 2-digits using partitioning and column method, equivalent calculations, missing number calculations, balanced equations, doubling and halving **Money:** All four operations to calculate amounts **Length:** Measuring and comparing lengths and making estimates **Mass and Volume:** Measure in kg and g and l and ml, comparing volume	**Patterns and Relationships:** Growing patterns, finding the odd one out, sequences Transition units for Year 3 to be revised and selected as appropriate

Year 3	**Place Value:** Reading and writing numbers up to 400, counting forwards in fours to 100. Identifying and representing numbers, ten more and ten less, comparing and ordering numbers and equivalent 10 tens and 1 hundred. **Addition and subtraction:** Addition and subtraction facts using multiples of 5 and 10, adding and subtracting 3 digits using exchanging and no exchanging. **Multiplication and division:** 5,4,8 and 3 times table, dividing by 4, 8 and 3.	**Time:** Telling the time to the nearest 1 and 5 minutes, different ways of expressing time (minutes past/minutes to), 24-hour clocks, number of seconds in a minute, number of days in each month, finding and comparing duration of events. **Fractions:** Recognising fifths , sixths and sevenths, counting in tenths, finding halves and quarters, finding fractions of quantities, comparing and ordering fractions, equivalent fractions. **Multiplication and division:** multiplying by teen numbers, ten by 1-digit, by 4 and by 8. **Geometry:** Identifying angles, understanding angles as the amount of turn, number of angles, right angles and turns.	**Geometry:** Perpendicular lines, parallel lines, 2-D and 3-D shapes. **Money:** Identifying amounts of money, making £1, £2 and £5, equivalence, adding and converting amounts of money, bridging £1 to add amounts. **Place Value:** Reading and writing numbers to 700, counting forwards and backwards up to 400, counting to 700 in steps of 10, 50 and 100, reading scales with intervals of 2,4,5 and 10, comparing numbers to 700. **Addition and subtraction:** numbers factors of 100 and related facts, estimation, column method for addition and subtract, missing digits for column method.	**Multiplication and division**: 4,3 and 8 times table including associated problems, multiplying 2 digits by multiples of ten and by 3, division facts linked to 4 and 8 times table, dividing by multiples of ten, dividing by partitioning by 4 and 3. **Fractions:** Adding and subtracting with the same denominator, inverse operations, subtracting from the whole. **Statistics:** Sorting, Carroll and Venn diagrams, making connections, sorting diagrams, pictograms, bar charts and interpretating bar charts.	**Place Value:** Reading and writing numbers to 1,000, counting numbers in multiples of 3,4, 8, 50 and 100, comparing and ordering numbers, identifying and representing numbers, partitioning in different ways. **Calculation:** Scaling number facts by 10 (addition and subtraction), methods for addition and subtraction, manipulate the additive relationship, column methods for multiplication, short division. **Money:** Unit 1 revision, subtracting amounts of money. **Length:** Estimating and measuring in m and cm, converting lengths in m, cm and mm, measuring and comparing lengths of different units, perimeter.	**Mass and Volume:** Reading masses in grams and kilograms, volume and capacity, measuring in litres and millilitres. **Patterns and relationships:** Shrinking patterns, addition and subtraction patterns on the number grid. Transition units for Year 4 to be revised and selected as appropriate.
Year 4	**Place Value:** Reading and writing numbers to 4,000. Counting forwards in steps of six to 198, identifying and representing numbers, comparing and ordering numbers, rounding numbers, equivalence of 10 hundreds and 1 thousand. **Addition and subtraction:** Addition and subtraction facts for 100, using friendly number pairs, scaling facts by 100, mental calculations by next/previous ten, doubles, left to right addition, number line, estimation, column addition and subtraction up to 4 digits (exchanging ones, tens and hundreds). **Multiplication and division:** 6,7,8,9 times table, dividing by 6,7 and 9.	**Time:** Convert time between an analogue clock and digital 12- and 24-hour clock, convert between minutes, seconds and hours, changing years to months and weeks to days. **Fractions:** Finding fractions of quantities, counting in fractional steps, mixed numbers to linear numbers system, comparing and ordering, equivalent mixed numbers and improper fractions. **Multiplication and division:** multiplying by ten and 1-digit, 2-digit by a 1 digit and 3 digit (expanded and compact), short division and division with remainders. **Geometry-** Angles, ordering and comparing, triangles and quadrilaterals, symmetry, coordinates and translations.	**Money and decimals**: Decimal equivalents of tenths to one, tenths greater than one, hundredths, halves and quarters, representing tenths greater than one and hundredths, multiplying decimals by ten, dividing 1 digit and 2 digit numbers by ten and multiplying and dividing 1 and digits by 100. **Place value:** Reading and writing numbers up to 7,000, counting in multiples of nine and seven, reading scales with intervals of 2,4,5 and 10 and negative numbers. **Addition and subtraction:** Mental strategies, making the next/previous thousand, missing digits in column addition method, subtracting a 4 digit from a 4 digit.	**Multiplication and division:** Understanding facts, commutative and distributive property, 7 times table and related facts, multiplying multiples of ten and compact column method (3 digits), partitioning and scaling relating to division, dividing 3 digit by 3 digit (short division- exchanging hundreds and tens) **Fractions:** Comparing equivalent fractions, improper and mixed numbers., adding and subtracting within one, converting between improper fractions and mixed numbers, adding and subtracting fractions and whole numbers, mixed numbers and improper fractions. **Statistics:** Sorting decision tree diagrams, interpretating tables, Carroll and Venn diagrams, Venn diagrams with three sets, sorting diagrams, line graphs.	**Place Value:** Reading and writing numbers to 10,000, making and partitioning numbers in different ways, roman numerals up to 100. **Calculation:** Different methods for addition and subtraction, recalling times table facts, using known multiplication facts to derive new facts, scaling multiplication and division facts by 10 and 100, multiply a 3 digit by a 1 digit, division facts by partitioning, short division. **Money and decimals:** Writing amounts of money in pounds, calculating with money, representing problems with bar models, adding decimal numbers. **Length:** Decimal notation for lengths in metres and centimetres, converting from kilometres to metres, perimeter and area.	**Mass and volume:** Reading different scales, reading masses using decimal notation, decimal notation for volume. **Patterns and relationships:** Growing patterns, investigating magic squares, patterns on a number grid showing addition and subtraction. Transition units for Year 5 to be revised and selected as appropriate
Year 5	**Place Value:** Reading/writing numbers to 400,000, counting in tens and hundreds and thousands, identifying and representing numbers, comparing and ordering numbers, rounding	**Time:** Converting between units of time and reading timetables. **Fractions:** Counting in thirds and ninths, find non-unit fractions of quantities, equivalent fractions, comparing and ordering numbers,	**Money and decimals:** Tenths, hundredths, halves and quarters, rounding and comparing, decimal numbers as fractions, decimal equivalents of thousandths,	**Multiplication and division:** Square and cube numbers, unit 2 revision, scaling multiplication and division facts, multiplying 2 digit by 2 digit (open array, grid and expanded column method),	**Place Value:** Reading and writing numbers to 1,000,000, counting forwards and backwards in steps of powers of 10, making and partitioning numbers in different	**Mass and volume:** Reading different scales, converting from kilograms to grams and from grams to kilograms, imperial/metric conversation for mass and volume, converting from

	to the nearest 10,100,1,000 and 10,000. **Addition and subtraction:** Facts for 1 and 10 with decimals numbers to 1 dp, complements for 1,000 and related facts, calculation strategies: next/previous ten, near doubles, left to right addition, number line and partition, estimation, adding and subtracting with more than 4 digits (exchanging). **Multiplication and division:** 9 times table revision, factors, understanding and recalling division facts, common factors and multiples, prime and square numbers.	improper and mixed numbers, recognising hundredths and linking to tenths e.g. **Multiplication and division:** Factors and multiples, multiplying and dividing by 10,100 and 1,000, multiplying 4-digit numbers. **Geometry:** Angles, angles in quadrilaterals, drawing shapes, co-ordinates, translation and reflection.	rounding, comparing and ordering up to three decimal places. **Place Value:** Reading and writing numbers to 700,000, counting in steps of 10, 100 and 1,000 with numbers >400,000, reading scales with 2,4,5 and 10, ordering and comparing numbers up to 700,000 and negative numbers. **Addition and subtraction:** Adding and subtracting with decimal numbers to two dp (related facts), methods for addition and subtraction and population data problems.	dividing number with up to 4 digits, investigating the multiplication square and volume of solid, cube and cuboids. **Fractions:** Addition and subtraction of related facts, multiplying proper fractions by whole numbers and mixed numbers by whole numbers and adding, subtracting and multiplying fractions. **Percentages:** Equivalents of 1/2 , ¼ , ¾ , 10ths, 5ths and 20ths, applying knowledge of fraction, decimal and percentage equivalent and finding percentages of quantities. **Statistics:** Representing the same data in different ways, Venn diagram with three sets, sorting diagrams: tables, line graphs and pie charts.	ways, roman numerals up to 1,000 and in years. **Calculation:** Addition and subtraction strategies, solving problems about bar models, multiplication using known facts, multiplying a 3 and 4 digit by a 2 digit number and division methods: remainders and related facts. **Money and decimals:** Calculating amounts of money and adding and subtracting decimal numbers. **Length:** Conversion of units of length and from kilometres to metres, area, perimeter and rectilinear shapes.	litres to millilitres and from millilitres to litres. **Patterns and relationships:** Number sequences, stick and tile patterns and stairs on a number grid. Transition units for Year 6 to be revised and selected as appropriate
Year 6	**Place Value:** Reading/writing numbers to 4,00,000 , counting in powers pf 10, identifying numbers using number lines, comparing and ordering numbers, rounding up to 1.000.000. **Addition and subtraction:** Friendly facts for 1,10 and 100. Single digit number facts, magic squares and missing numbers, column addition and subtraction. **Multiplication and division:** 7 times table, multiples and factors, prime numbers, square and cube numbers, efficient strategies for multiplication, multiplying a 2 digit by a 2 digit and a 3 digit by a 2 digit.	**Time:** Solving problems and converting between units of time. Fractions: Counting in sixths and twelfths, finding fractions of quantities, equivalent and simplified fractions, comparing and ordering fractions. **Multiplication and division:** Divisibility rules, dividing by a 2 digit, using factors and partitioning and long division. **Percentages:** Finding percentages of quantities. **Geometry:** Angles, vertically opposite angles and circles.	**Geometry:** Drawing 2-D shapes, 3-D shapes and coordinates. **Money and decimals:** Decimal/fraction equivalence, linking fractions with division to calculate equivalents, rounding decimal numbers and money, comparing and ordering decimals to 3 dp, multiply and divide by 10,100 and 1,000 giving answers up to 3dp. **Place Value:** Reading and writing numbers up to 10 million, counting in steps of 10, 100 and 1,000, power of 10- place value relationships, identifying numbers, reading scales with 2,4,5 or 10 intervals and negative numbers. **Addition and subtraction:** Adding numbers that form a sequence, adding and subtracting decimals and associated problems (tenths, hundredths and thousandths), additive and multiplicative relationships and addition comparison relationships.	**Multiplication and division:** Finding missing numbers, all four operations to solve problems, ratio, importance of order of ratio and scale on maps and factors. **Fractions:** Addition and subtraction with unrelated denominators and multiplying and dividing. **Algebra:** Number sequences, patterns and formulae, finding formulae and investigating algebra. **Statistics:** Sorting diagrams, line graphs, pie charts and averages. Measurements: Converting unit of measurement (mass and volume), metric/imperial equivalents (mass and length), area and perimeter, area of parallelogram and triangles and volume.	**Place Value:** Rounding, number sequences, number grids and making numbers in different ways. **Calculation:** Missing digits, derive related facts to understand problems using bar charts and percentages. **Money and decimals:** Solving problems relating to money and decimals and multiplying and dividing with numbers up to 2 dp by one digit and two digit numbers. Teacher to decide units to revisit post SATs.	Teacher to decide units to revisit post SATs.