Corpus Christi Catholic Primary School

MATHEMATICS HANDBOOK

MATHEMATICS CURRICULUM: INTENT: All of our children will have consistent access to a broad, balanced and high quality mathematics curriculum which will:

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

MATHEMATICS Together we DREAM, together we learn

AIMS

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately;
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language;
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

At Corpus Christi, our mission statement and the teaching of Jesus is at the centre of all we do.

We intend to show this through our mathematics curriculum:

Give opportunities to DISCOVER new facts, skills, information and experiences, through mathematical enquiry.
Teach children to RESPECT each other, the use of different methods and the mathematical resources used to enhance learning across the school.
Provide experiences to ENTHUSE and excite and develop mathematical knowledge and understanding.
Encourage high ASPIRATIONS in both school and beyond, and applying those aspirations in their mathematics work.
Show ways our children can MAKE A DIFFERENCE to themselves, each other and outside, in big and small ways, and use their understanding in mathematics to aid their ideas.

STRATEGIES: In order to achieve our aims our school provides:

On site facilities:

- Online White Rose Maths Planning and Resources
- Online Maths Shed Resources
- ICT resources- Ipads and Smart TV in every classroom
- Outdoor learning- sand and water trays and playground games.

Off site facilities:

- Math Hub
- NCETM online resources
- Teacher Research Group training and sessions in other schools.

Equipment/Resources

The school maintains a range of resources for mathematics- resources within every classroom to aid daily mathematics tasks, such as: place value counters, base ten, ten frames, rulers etc. Resources within shared areas for daily mathematics tasks, such as: 2D and 3D shapes, clocks, bead strings, mirrors, money, measuring equipment, games etc.

Curriculum Provision

Reception– Y6: 60 minute mathematics lesson daily (plus 4-a-day completed every day within Y3-Y6)
Children follow the school's scheme of work (White Rose) and are continuously assessed against clear learning objectives.

Extra-Curricular Provision

Additional examples of our commitment to mathematics include:

Involvement in the Teacher Research Group sessions with North West Maths Hub, Number Day supporting NSPCC every February,

Continuing Professional Development

Teachers and support staff are encouraged to develop their skills and knowledge to enhance the teaching of mathematics in school.

- Subject Leadership training – Maths Lead
- Research Projects – EYFS, Y2, Y4.
- Support through team teaching

- Support through research schools.
- Maths Lead attend training to review Mastery, Tests, mental maths.
- All teachers to follow 'White Rose' Maths planning from September 2019.
- 2 teachers trained to improve multiplication tables and fractions, decimals and percentage fluency across KS2.

Reporting

Verbal reports to parents take place twice a year at Parent's Evening.
Written reports are provided annually.

- **All staff are continuously trained so as to ensure that mathematics is taught to a high standard**
- **This high quality teaching is supported through the appropriate funding, resources, timetables and our whole school environment, which is maintained to a high standard and enhances and promotes our teaching and our children's experiences and learning**
- **Staff plan and deliver daily high quality mathematics lessons**
- **Staff meet regularly to review the quality of our provision and to refresh, reposition and change as appropriate**
- **Staff meet regularly to track and review the progress of our children and this high quality formative assessment contributes good rates of progress and high levels of attainment**
- **Strong parent partnerships and home/school systems contribute the quality of our provision**

OUTCOMES

The teaching of all aspects of mathematics is consistently good with much outstanding practice.
All of our children develop their enjoyment, knowledge, understanding and skills in mathematics and use these successfully across all areas of the curriculum.
All of our children make good progress from their starting point in mathematics.

MONITORING EVALUATION REVIEW

The school implements an annual programme of quality assurance which includes:

- Scrutiny of planning
- assessment and work books
- Lesson Observations
- Learning walks
- Conversations with children
- Consultation with parents

MATHEMATCIS: CURRICULUM IMPLEMENTATION: PLANNING

Our long term planning ensures coverage of the National Mathematics Curriculum and is responsive to local influences. In order to widen and deepen pupils' essential knowledge, skills, understanding and behaviours, our children continuously return to key concepts and skills in order to gain a deeper and more insightful understanding.

Year 1 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place Value (within 10)				Number: Addition and Subtraction (within 10)				Geometry: Shape	Number: Place Value (within 20)		Consolidation
Spring	Number: Addition and Subtraction (within 20)				Number: Place Value (within 50) (Multiples of 2, 5 and 10 to be included)			Measurement: Length and Height		Measurement: Weight and Volume		Consolidation
Summer	Number: Multiplication and Division (Reinforce multiples of 2, 5 and 10 to be included)			Number: Fractions		Geometry: position and direction	Number: Place Value (within 100)		Measurement : money	Time		Consolidation

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number: Place Value Count to **ten**, forwards and backwards, beginning with 0 or 1, or from any given number. Count, read and write numbers to **10** in numerals and words. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.				Number: Addition and Subtraction Represent and use number bonds and related subtraction facts **within 10** Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. Add and subtract one digit numbers **to 10**, including zero. Solve one step problems that involve addition and subtraction, using concrete objects and pictorial representations and missing number problems.				Geometry: Shape Recognise and name common 2-D shapes, including: (for example, rectangles (including squares), circles and triangles) Recognise and name common 3-D shapes, including: (for example, cuboids (including cubes), pyramids and spheres.)	Number: Place Value Count to **twenty**, forwards and backwards, beginning with 0 or 1, from any given number. Count, read and write numbers to **20** in numerals and words. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least.		Consolidation

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number: Addition and Subtraction Represent and use number bonds and related subtraction facts within 20 Read, write and interpret mathematical statements involving addition (+), subtraction (-) and equals (=) signs. 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 such as 7= ☐ – 9				Place Value Count to **50** forwards and backwards, beginning with 0 or 1, or from any number. Count, read and write numbers to **50** in numerals. Given a number, identify one more or one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than (fewer), most, least. **Count in multiples of twos, fives** and tens.			Measurement: Length and Height Measure and begin to record lengths and heights. **Compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short,** double/half)		Measurement: Weight and Volume Measure and begin to record mass/weight, capacity and volume. **Compare, describe and solve practical problems for mass/weight: [for example, heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than,** half, half full, quarter]		Consolidation

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number: Multiplication and Division Count in multiples of twos, fives and tens. 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.			Number: Fractions 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. **Compare, describe and solve practical problems for: lengths and heights (for example,** long/short, longer/shorter, tall/short, **double/half)** **Compare, describe and solve practical problems for: mass/weight [for example,** heavy/light, heavier than, lighter than]; capacity and volume [for example, full/empty, more than, less than, **half, half full, quarter**]		Geometry: position and direction Describe position, direction and movement, including whole, half, quarter and three quarter turns	Number: Place Value 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. Given a number, identify one more and one less. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of: equal to, more than, less than, most, least.		Measurement: Money Recognise and know the value of different denominations of coins and notes.	Measurement: Time Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening. Recognise and use language relating to dates, including days of the week, weeks, months and years. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times. Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] Measure and begin to record time (hours, minutes, seconds)		Consolidation

Year 2 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number: Place value			Number: Addition and Subtraction					Measurement: Money		Number: Multiplication and Division	
Spring	Number: Multiplication and Division		Statistics	Geometry: Properties of Shape				Number: Fractions			Measurement: length and height	Consolidation
Summer	Position and direction			Problem solving and efficient methods		Measurement: Time		Measurement: Mass, Capacity and Temperature			Investigations	

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number – Place Value Read and write numbers to at least 100 in numerals and in words. 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. Use place value and number facts to solve problems. Count in steps of 2, 3 and 5 from 0, and in tens from any number, forward and backward.			Number – Addition and Subtraction 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; adding three one-digit numbers. Show that the addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures; applying their increasing knowledge of mental and written methods. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.					Measurement: Money Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value. Find different combinations of coins that equal the same amounts of money. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change.		Multiplication and Division Recall and use multiplication and division facts for the 2, 5 and 10 times 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 (=) sign. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.	

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Multiplication and Division Recall and use multiplication and division facts for the 2, 5 and 10 times tables, including recognising odd and even numbers. Calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts, including problems in contexts. Show that the multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.		Statistics 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.		Geometry- properties of shape 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.			Number – fractions Recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$.			Measurement: length and height Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels Compare and order lengths, mass, volume/capacity and record the results using >, < and =	Consolidation

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Position and Direction 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 anti-clockwise). Order and arrange combinations of mathematical objects in patterns and sequences			Problem solving and Efficient methods.		Measurement: Time Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times. Know the number of minutes in an hour and the number of hours in a day. Compare and sequence intervals of time.		Measurement: Mass, Capacity and Temperature Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels Compare and order lengths, mass, volume/capacity and record the results using >, < and =			Investigations	

Year 3 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number – Place Value			Number – Addition and Subtraction					Number – Multiplication and Division			Consolidation
Spring	Number - Multiplication and Division			Measurement: Money	Statistics		Measurement: length and perimeter			Number - Fractions		Consolidation
Summer	Number – fractions			Measurement: Time			Geometry – Properties of Shapes		Measurement: Mass and Capacity			Consolidation

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number – Place Value Identify, represent and estimate numbers using different representations. Find 10 or 100 more or less than a given number Recognise the place value of each digit in a three-digit number (hundreds, tens, ones). Compare and order numbers up to 1000 Read and write numbers up to 1000 in numerals and in words. Solve number problems and practical problems involving these ideas. **Count from 0 in multiples of** 4, 8, **50 and 100**			Number – Addition and Subtraction Add and subtract numbers mentally, including: a three-digit number and ones; a three-digit number and tens; a three digit number and hundreds. Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction. Estimate the answer to a calculation and use inverse operations to check answers. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction.					Number – Multiplication and Division **Count from 0 in multiples of 4, 8,** 50 and 100 Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. **Write and calculate mathematical statements for multiplication and division using the multiplication tables they know,** including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objectives.			

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – multiplication and division</u> Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables. Write and calculate mathematical statements for multiplication and division using the multiplication tables they know, including for two-digit numbers times one-digit numbers, using mental and progressing to formal written methods. Solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondence problems in which *n* objects are connected to *m* objectives.			<u>Measurement – money</u> Add and subtract amounts of money to give change, using both £ and p in practical contexts.	<u>Statistics</u> Interpret and present data using bar charts, pictograms and tables. Solve one-step and two-step questions [for example, 'How many more?' and 'How many fewer?'] using information presented in scaled bar charts and pictograms and tables.		<u>Measurement – length and perimeter</u> **<u>Measure, compare, add and subtract: lengths (m/cm/mm);</u>** mass (kg/g); volume/capacity (l/ml). Measure the perimeter of simple 2D shapes.			<u>Number – fractions</u> Count up and down in tenths; recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators. Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators. Solve problems that involve all of the above.		**Consolidation**

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – fractions</u> Recognise and show, using diagrams, equivalent fractions with small denominators. Compare and order unit fractions, and fractions with the same denominators. Add and subtract fractions with the same denominator within one whole [for example, $\frac{5}{7}+\frac{1}{7}=\frac{6}{7}$] Solve problems that involve all of the above.			<u>Measurement – time</u> Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks. Estimate and read time with increasing accuracy to the nearest minute. Record and compare time in terms of seconds, minutes and hours. Use vocabulary such as o'clock, a.m./p.m., morning, afternoon, noon and midnight. Know the number of seconds in a minute and the number of days in each month, year and leap year. Compare durations of events [for example to calculate the time taken by particular events or tasks].			<u>Geometry – properties of shape</u> Recognise angles as a property of shape or a description of a turn. Identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn; identify whether angles are greater than or less than a right angle. Identify horizontal and vertical lines and pairs of perpendicular and parallel lines. Draw 2-D shapes and make 3-D shapes using modelling materials. Recognise 3-D shapes in different orientations and describe them.		<u>Measurement – mass and capacity</u> **<u>Measure, compare, add and subtract:</u>** lengths (m/cm/mm); **<u>mass (kg/g);</u>** **<u>volume/capacity (l/ml).</u>**			**Consolidation**

Year 4 – Yearly Overview

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

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Number – Place Value **Count in multiples of** 6, 7, 9. **25 and 1000.** Find 1000 more or less than a given number. Recognise the place value of each digit in a four digit number (thousands, hundreds, tens and ones) Order and compare numbers beyond 1000 Identify, represent and estimate numbers using different representations. Round any number to the nearest 10, 100 or 1000 Solve number and practical problems that involve all of the above and with increasingly large positive numbers. Count backwards through zero to include negative numbers. Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of zero and place value.				Number- Addition and Subtraction Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. Estimate and use inverse operations to check answers to a calculation. Solve addition and subtraction two step problems in contexts, deciding which operations and methods to use and why.			Measurement: Length and Perimeter Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres Convert between different units of measure [for example, kilometre to metre]	Number – Multiplication and Division Recall and use multiplication and division facts for multiplication tables up to 12 × 12. **Count in multiples of 6, 7, 9.** 25 and 1000 Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. **Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit**, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.			Consolidation

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – multiplication and division</u> Recall and use multiplication and division facts for multiplication tables up to 12 × 12. Use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1; dividing by 1; multiplying together three numbers. Recognise and use factor pairs and commutativity in mental calculations. Multiply two digit and three digit numbers by a one digit number using formal written layout. Solve problems involving multiplying and adding, including using the distributive law to multiply two digit numbers by one digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects.			<u>Measurement-Area</u> Find the area of rectilinear shapes by counting squares.	<u>Fractions</u> Recognise and show, using diagrams, families of common equivalent fractions. Count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. Solve problems involving increasingly harder fractions to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number. Add and subtract fractions with the same denominator.				<u>Decimals</u> Recognise and write decimal equivalents of any number of tenths or hundredths. Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths **<u>Solve simple measure</u>** and money **<u>problems involving fractions and decimals to two decimal places.</u>** Convert between different units of measure [for example, kilometre to metre]			Consolidation

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Decimals</u> Compare numbers with the same number of decimal places up to two decimal places. Round decimals with one decimal place to the nearest whole number. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ Find the effect of dividing a one or two digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths		<u>Measurement- Money</u> Estimate, compare and calculate different measures, including money in pounds and pence. Solve simple measure and money problems involving fractions and decimals to two decimal places.		<u>Time</u> **<u>Convert between different units of measure [for example,</u>** kilometre to metre; **<u>hour to minute]</u>** Read, write and convert time between analogue and digital 12- and 24-hour clocks. Solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days.	<u>Statistics</u> Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs.		<u>Geometry: Properties of shape</u> Identify acute and obtuse angles and compare and order angles up to two right angles by size. Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes. Identify lines of symmetry in 2-D shapes presented in different orientations. Complete a simple symmetric figure with respect to a specific line of symmetry.			<u>Geometry- Position and Direction</u> Describe positions on a 2-D grid as coordinates in the first quadrant. Plot specified points and draw sides to complete a given polygon. Describe movements between positions as translations of a given unit to the left/ right and up/ down.	Consolidation

Year 5 – Yearly Overview

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

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – Place Value</u> Read, write, order and compare numbers to at least 1000000 and determine the value of each digit. Count forwards or backwards in steps of powers of 10 for any given number up to 1000000. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers including through zero. Round any number up to 1000000 to the nearest 10, 100, 1000, 10000 and 100000 Solve number problems and practical problems that involve all of the above. Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.			<u>Number- Addition and Subtraction</u> Add and subtract numbers mentally with increasingly large numbers. Add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction) Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy. Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.		<u>Statistics</u> Solve comparison, sum and difference problems using information presented in a line graph. Complete, read and interpret information in tables including timetables.		<u>Number – multiplication and division</u> Multiply and divide numbers mentally drawing upon known facts. Multiply and divide whole numbers by 10, 100 and 1000. Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers. Recognise and use square numbers and cube numbers and the notation for squared (^{2}) and cubed (^{3}) Solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes. Know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers. Establish whether a number up to 100 is prime and recall prime numbers up to 19		<u>Perimeter and Area</u> Measure and calculate the perimeter of composite rectilinear shapes in cm and m. Calculate and compare the area of rectangles (including squares), and including using standard units, cm^2, m^2 estimate the area of irregular shapes.		Consolidation

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number – Multiplication and Division</u> Multiply and divide numbers mentally drawing upon known facts. Multiply numbers up to 4 digits by a one or two digit number using a formal written method, including long multiplication for 2 digit numbers. Divide numbers up to 4 digits by a one digit number using the formal written method of short division and interpret remainders appropriately for the context. Solve problems involving addition and subtraction, multiplication and division and a combination of these, including understanding the use of the equals sign.			<u>Number: Fractions</u> Compare and order fractions whose denominators are multiples of the same number. Identify, name and write equivalent fractions of a given fraction, represented visually including tenths and hundredths. Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements >1 as a mixed number [for example $\frac{2}{5}+\frac{4}{5}=\frac{6}{5}=1\frac{1}{5}$] Add and subtract fractions with the same denominator and denominators that are multiples of the same number. Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams. Read and write decimal numbers as fractions [for example $0.71=\frac{71}{100}$] Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates.			<u>Number: Decimals and Percentages</u> Read, write, order and compare numbers with up to three decimal places. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents. Round decimals with two decimal places to the nearest whole number and to one decimal place. Solve problems involving number up to three decimal places. Recognise the per cent symbol (%) and understand that per cent relates to 'number of parts per hundred', and write percentages as a fraction with denominator 100, and as a decimal. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}, \frac{1}{4}, \frac{1}{5}, \frac{2}{5}, \frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25.		Consolidation

Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number: Decimals</u> Solve problems involving number up to three decimal places. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000. Use all four operations to solve problems involving measure [for example, length, mass, volume, money] using decimal notation, including scaling.				<u>Geometry- Properties of Shapes and Angles</u> Identify 3D shapes, including cubes and other cuboids, from 2D representations. Use the properties of rectangles to deduce related facts and find missing lengths and angles. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. Know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles. Draw given angles, and measure them in degrees (°) Identify: angles at a point and one whole turn (total 360°), angles at a point on a straight line and ½ a turn (total 180°) other multiples of 90°			<u>Geometry- position and direction</u> Identify, describe and represent the position of a shape following a reflection or translation, using the appropriate language, and know that the shape has not changed.	<u>Measurement- converting units</u> Convert between different units of metric measure [for example, km and m; cm and m; cm and mm; g and kg; l and ml] Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints. Solve problems involving converting between units of time.		<u>Measures Volume</u> Estimate volume [for example using 1cm^3 blocks to build cuboids (including cubes)] and capacity [for example, using water] Use all four operations to solve problems involving measure.	Consolidation

Year 6 – Yearly Overview

	Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
Autumn	Number- Place Value		Number- Addition, Subtraction, Multiplication and Division				Fractions				Geometry- Position and Direction	Consolidation
Spring	Number- Decimals		Number- Percentages		Number- Algebra		Measurement Converting units	Measurement Perimeter, Area and Volume		Number- Ratio		Consolidation
Summer	Geometry- Properties of Shapes		Problem solving			Statistics		Investigations				Consolidation

Autumn Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number: Place Value</u> Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. Round any whole number to a required degree of accuracy. Use negative numbers in context, and calculate intervals across zero. Solve number and practical problems that involve all of the above.		<u>Number- addition subtraction, multiplication + division</u> Solve addition and subtraction multi step problems in contexts, deciding which operations and methods to use and why. Multiply multi-digit number up to 4 digits by a 2-digit number using the formal written method of long multiplication. Divide numbers up to 4 digits by a 2-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding as appropriate for the context. Divide numbers up to 4 digits by a 2-digit number using the formal written method of short division, interpreting remainders according to the context. Perform mental calculations, including with mixed operations and large numbers. Identify common factors, common multiples and prime numbers. Use their knowledge of the order of operations to carry out calculations involving the four operations. Solve problems involving addition, subtraction, multiplication and division. Use estimation to check answers to calculations and determine in the context of a problem, an appropriate degree of accuracy.			<u>Fractions</u> Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. Compare and order fractions, including fractions > 1 Generate and describe linear number sequences (with fractions) Add and subtract fractions with different denominations and mixed numbers, using the concept of equivalent fractions. Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$] Divide proper fractions by whole numbers [for example $\frac{1}{3} \div 2 = \frac{1}{6}$] Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example $\frac{3}{8}$] Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts.			<u>Geometry- Position and Direction</u> Describe positions on the full coordinate grid (all four quadrants). Draw and translate simple shapes on the coordinate plane, and reflect them in the axes.	Consolidation

Spring Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Number: Decimals</u> Identify the value of each digit in numbers given to 3 decimal places and multiply numbers by 10, 100 and 1,000 giving answers up to 3 decimal places. Multiply one-digit numbers with up to 2 decimal places by whole numbers. Use written division methods in cases where the answer has up to 2 decimal places. Solve problems which require answers to be rounded to specified degrees of accuracy.		<u>Number: Percentages</u> Solve problems involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison. Recall and use equivalences between simple fractions, decimals and percentages including in different contexts.		<u>Number: Algebra</u> Use simple formulae Generate and describe linear number sequences. Express missing number problems algebraically. Find pairs of numbers that satisfy an equation with two unknowns. Enumerate possibilities of combinations of two variables.		<u>Measurement Converting Units</u> Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate. Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to 3dp. Convert between miles and kilometres.	<u>Measurement: Perimeter, Area and Volume</u> Recognise that shapes with the same areas can have different perimeters and vice versa. Recognise when it is possible to use formulae for area and volume of shapes. Calculate the area of parallelograms and triangles. Calculate, estimate and compare volume of cubes and cuboids using standard units, including cm^3, m^3 and extending to other units (mm^3, km^3)		<u>Number: Ratio</u> Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. Solve problems involving similar shapes where the scale factor is known or can be found. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples.		Consolidation

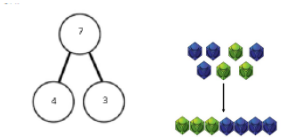
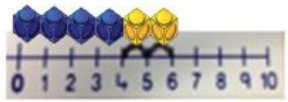
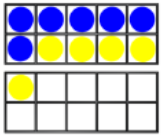
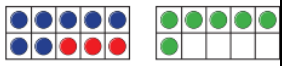
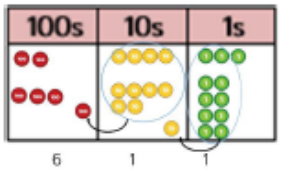
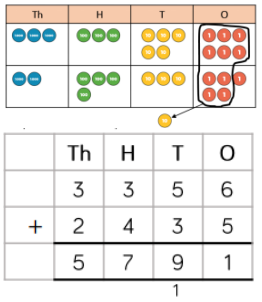
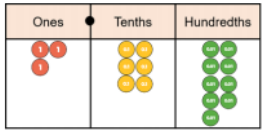
Summer Term

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12
<u>Geometry: Properties of Shapes</u> Draw 2-D shapes using given dimensions and angles. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals and regular polygons. Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles.		<u>Problem Solving</u>			<u>Statistics</u> Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. Interpret and construct pie charts and line graphs and use these to solve problems. Calculate the mean as an average.		<u>Investigations</u>				Consolidation

MATHEMATCIS CURRICULUM IMPLEMENTATION: PROGRESSION

We have a clear understanding of the progression we aspire for all of our children to make in all areas of mathematics. We are following the White Rose Maths scheme of work across the whole school.

Corpus Christi Calculation Policy

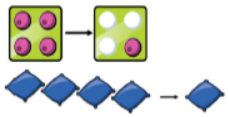
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Addition	Combining two parts to make a whole: part whole model.  Starting at the bigger number and counting on- using cubes.  Regrouping to make 10 using ten frame. 	Adding three single digits.  Use of base 10 to combine two numbers. 41 + 8 = 	Column method- regrouping. 243 +368 611 1 1 Using place value counters (up to 3 digits).  6 1 1	Column method- regrouping. (up to 4 digits)  1	Column method- regrouping. 3 6 3 4 + 5 5 6 5 9 1 9 9 1 Use of place value counters for adding decimals.  Ones Tenths Hundredths 0 1 2	Column method- regrouping. Abstract methods. 3 4 6 2 1 + 2 5 7 3 4 Place value counters to be used for adding decimal numbers.  Ones Tenths Hundredths

Subtraction

Taking away ones.

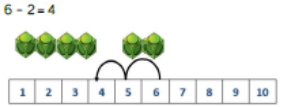
(ten frames, Numicon, cubes and other items such as beanbags could be used).

4 - 3 = 1



Counting back.

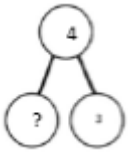
6 - 2 = 4



Find the difference.

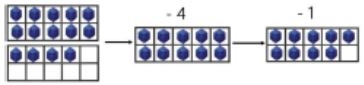
Calculate the difference between 8 and 5.

Part whole model.



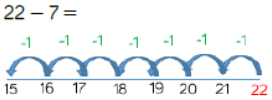
Make 10 using ten frame.

14 - 5

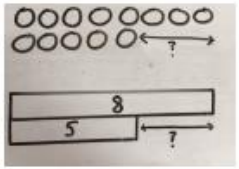


Counting back.

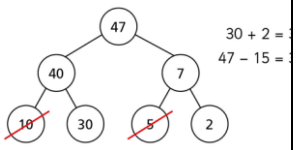
22 – 7 =



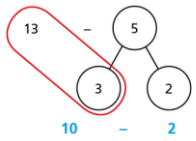
Find the difference.



Part whole model.



Make 10.



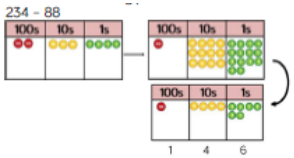
Use of base 10.

Subtract 8 from 24

Tens Ones

Column method with regrouping. (Up to 3 digits using place value counters)

234 - 88



Column method with regrouping. (Up to 4 digits)

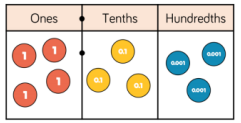
	Th	H	T	O
	9	8	4	5
–	6	2	1	6

Column method with regrouping.

Abstract for whole numbers.

	7	3	1	5
–	3	2	4	1

Start with place value counters for decimals- with the same amount of decimal places.

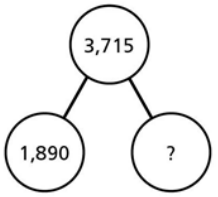


4 . 3 3
– 2 . 1 4
_____

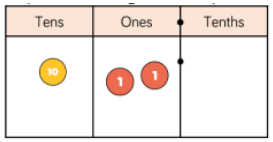
Column method with regrouping.

Abstract methods.

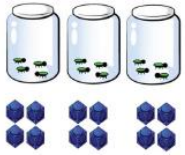
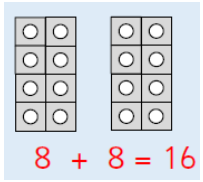
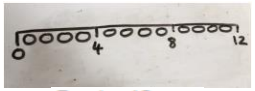
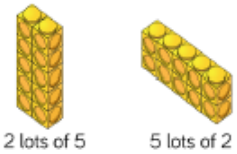
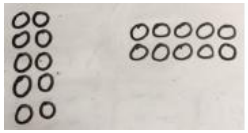
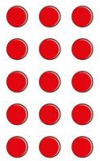
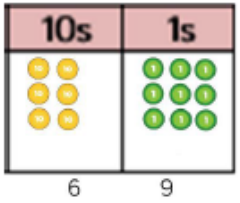
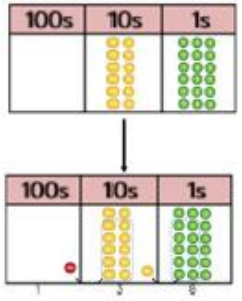
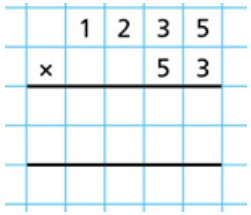
	4	2	4	8	5	0
–			5	2	3	6

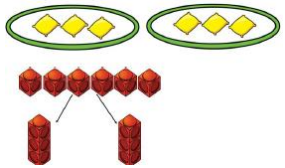
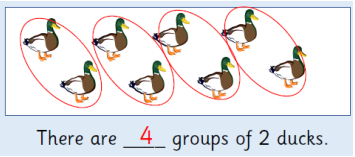
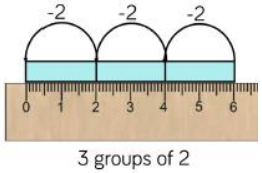
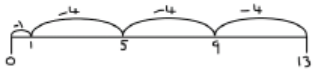
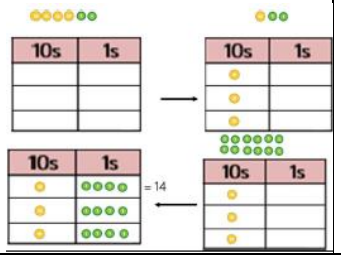
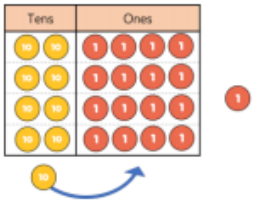
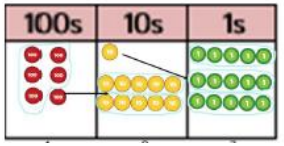
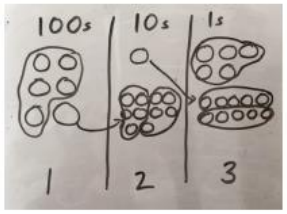


Place value counters for decimals- with different amounts of decimal places.



1 2 .
– 1 . 2
_____

Multiplication	Recognising and making equal groups.  Doubling.  Counting in multiples: Use cubes, Numicon and other objects in the classroom.  	Arrays- showing commutative multiplication.   	Arrays  5 equal groups of 3 2d x 1d using base 10 There are 23 marbles in a ja There are 5 jars.  	Column multiplication- introduced with place value counters. (2 and 3 digit multiplied by 1 digit) 3 x 23  6 x 23  	Column multiplication Abstract only but might need a repeat of year 4 first (up to 4 digit numbers by 1 or 2 digits) 6 x 23 = 23 × 6 138 1 1 and 1 2 4 × 2 6 7 4 4 1 2 2 4 8 0 3 2 2 4 1 1 Answer: 3224	Column multiplication Abstract methods (multi-digit up to 4 digits by a 2 digit number) 

Division	Sharing objects into groups  Division as grouping  Use cubes and draw round 3 cubes at a time	Division as grouping  Division within arrays- linking to multiplication  2 x 5 and 5 x 2 Repeated subtraction  3 groups of 2	Division with a remainder- using sticks, times tables facts and repeated subtraction.  There are 3 whole squares, with 1 left over. '3 groups of 4, with 1 left over'  2d divided by 1d using base 10 or place value counters.  	Division with a remainder 97÷ 4 = 24 r 1  Short division (up to 3 digits by 1 digit- concrete and pictorial) 615 ÷ 5   	See below	See below

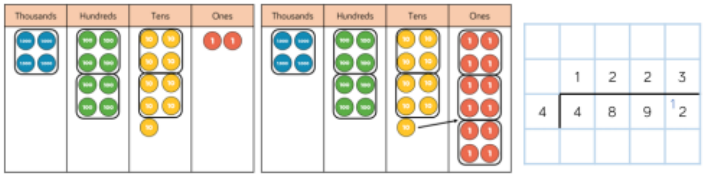
Division

Short division

		1	2	2	3
4	4	8	9	1	2

(up to 4 digits by 1 digit number including remainders)

Using place value counters and short division:



		1	2	2	3
4	4	8	9	1	2

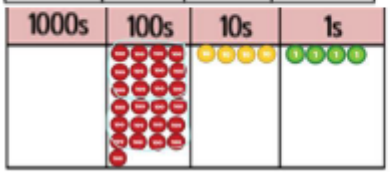
Short division

		1	2	2	3	
4	4	8	9	1	4	r2

Long division with place value counters (up to 4 digits by a 2 digit number)

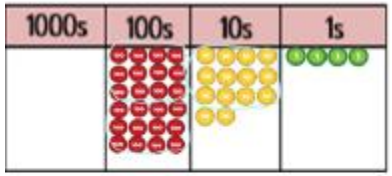
2544 ÷ 12 = 212

We can't group 2 thousands into groups of 12 so will exchange them.



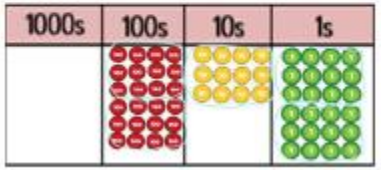
We can group 24 hundreds into groups of 12 which leaves with 1 hundred.

```
  02
12|2544
  24
  --
   1
```



After exchanging the hundred, we have 14 tens. We can group 12 tens into a group of 12, which leaves 2 tens.

```
  021
12|2544
  24
  --
  14
  12
  --
   2
```



After exchanging the 2 tens, we have 24 ones. We can group 24 ones into 2 group of 12, which leaves no remainder.

```
  0212
12|2544
  24
  --
  14
  12
  --
  24
  24
  --
   0
```

Children should exchange into tenths and hundredths column too

MATHEMATICS CURRICULUM IMPLEMENTATION: ASSESSMENT

EYFS	End of KS1	End of KS2
Early learning goal – numbers 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. • Recognise some numerals of personal significance. • Recognises numerals 1 to 5. • Counts up to three or four objects by saying one number name for each item. • Counts actions or objects which cannot be moved. • Counts objects to 10, and beginning to count beyond 10. • Counts out up to six objects from a larger group. • Selects the correct numeral to represent 1 to 5, then 1 to 10 objects. • Counts an irregular arrangement of up to ten objects. • Estimates how many objects they can see and checks by counting them. • Uses the language of 'more' and 'fewer' to compare two sets of objects. • Finds the total number of items in two groups by counting all of them. • Says the number that is one more than a given number. • Finds one more or one less from a group of up to five objects, then ten objects. • In practical activities and discussion, beginning to use the vocabulary involved in adding and subtracting. • Records, using marks that they can interpret and explain. • Begins to identify own mathematical problems based on own interests and fascinations **Early learning goal – shape, space and measures** Children use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems. They recognise, create and describe patterns. They explore characteristics of everyday objects and shapes and use mathematical language to describe them. • Beginning to use mathematical names for 'solid' 3D shapes and 'flat' 2-D shapes, and mathematical terms to describe shapes. • Selects a particular named shape. • Can describe their relative position such as 'behind' or	**<u>Working towards the expected standard</u>** The pupil can: • read and write numbers in numerals up to 100 • partition a two-digit number into tens and ones to demonstrate an understanding of place value, though they may use structured resources to support them • add and subtract two-digit numbers and ones, and two-digit numbers and tens, where no regrouping is required, explaining their method verbally, in pictures or using apparatus (e.g. 23 + 5; 46 + 20; 16 – 5; 88 – 30) • recall at least four of the six number bonds for 10 and reason about associated facts (e.g. 6 + 4 = 10, therefore 4 + 6 = 10 and 10 – 6 = 4) • count in twos, fives and tens from 0 and use this to solve problems • know the value of different coins • name some common 2-D and 3-D shapes from a group of shapes or from pictures of the shapes and describe some of their properties (e.g. triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres). **<u>Working at the expected standard</u>** The pupil can: • read scales in divisions of ones, twos, fives and tens • partition any two-digit number into different combinations of tens and ones, explaining their thinking verbally, in pictures or using apparatus • add and subtract any 2 two-digit numbers using an efficient strategy, explaining their method verbally, in pictures or using apparatus (e.g. 48 + 35; 72 – 17) • recall all number bonds to and within 10 and use these to reason with and calculate bonds to and within 20, recognising other associated additive relationships (e.g. If 7 + 3 = 10 then 17 + 3 = 20; if 7 – 3 = 4 then 17 – 3 = 14; leading to if 14 + 3 = 17, then 3 + 14 = 17, 17 – 14 = 3 and 17 – 3 = 14) • recall multiplication and division facts for 2, 5 and 10 and use them to solve simple problems, demonstrating an understanding of commutativity as necessary • identify quarter, half, third, half, three quarters and two quarters of a number or shape, and know that all parts must be equal parts of the whole • use different coins to make the same amount • read the time on a clock to the nearest 15 minutes • name and describe properties of 2-D and 3-D shapes, including number of sides, vertices, edges, faces and lines of symmetry. **<u>Working at greater depth</u>**	**<u>Working at the expected standard</u>** The pupil can: **Number and place value** • Read, write, order and compare numbers up to 10,000,000 and determine the value of each digit. • Round any whole number accurately. • Use negative numbers in context, and calculate intervals across zero. **Addition, subtraction, multiplication and division** • Solve number and practical problems that involve all of the above. • Use common factors to simplify fractions; use common multiples to express fractions in the same denomination. • Compare and order fractions. • Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions. • Multiply simple pairs of proper fractions. • Divide proper fractions by whole numbers. • Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction. • Identify the value of each digit in numbers given to three decimal places, and multiply and divide numbers by 10, 100 and 1000. • Solve problems involving the relative sizes of two quantities where missing values can be found by using integer multiplication and division facts. • Solve problems involving the calculation of percentages. • Solve problems involving similar shapes where the scale factor is known or can be found. • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples. **Algebra** • Use simple formulae. • Generate and describe linear number sequences. • Express missing number problems algebraically. • Find pairs of numbers that satisfy an equation with two unknowns. • Enumerate possibilities of combinations of two variables. **Measurement** • Solve problems involving the calculation and conversion of units of measure, up to three decimal places. • Use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to a larger unit, and vice versa. • Convert between miles and kilometres. • Recognise that shapes with the same areas can have different perimeters and vice versa. • Recognise when it is possible to use formulae for area and volume of shapes. • Calculate the area of parallelograms and triangles.

'next to'. • Orders two or three items by length or height. • Orders two items by weight or capacity. • Uses familiar objects and common shapes to create and recreate patterns and build models. • Uses everyday language related to time. • Beginning to use everyday language related to money. • Orders and sequences familiar events. • Measures short periods of time in simple ways.	The pupil can: • read scales* where not all numbers on the scale are given and estimate points in between • recall and use multiplication and division facts for 2, 5 and 10 and make deductions outside known multiplication facts • use reasoning about numbers and relationships to solve more complex problems and explain their thinking (e.g. 29 + 17 = 15 + 4 + ¨ ; 'together Jack and Sam have £14. Jack has £2 more than Sam. How much money does Sam have?' etc) • solve unfamiliar word problems that involve more than one step (e.g. 'which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet?') • read the time on a clock to the nearest 5 minutes • describe similarities and differences of 2-D and 3-D shapes, using their properties (e.g. that two different 2-D shapes both have only one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices, but different dimensions).	• Calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres. **Geometry** • Draw 2D shapes using given dimensions and angles. • Recognise, describe and build simple 3D shapes, including making nets. • Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangles, quadrilaterals, and regular polygons. • Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius. • Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles. • Describe positions on the full coordinate grid (all four quadrants). • Draw and translate simple shapes on the coordinate plane, and reflect them in the axes. **Statistics** • Interpret and construct pie charts and line graphs and use these to solve problems. • Calculate and interpret the mean as an average.

MATHEMATICS CURRICULUM IMPLEMENTATION: SPIRITUAL MORAL SOCIAL AND CULTURAL DEVELOPMENT

Our mathematics Curriculum contributes to the spiritual, moral, social and cultural development of our children and embeds our School ethos and mission statement of, Together we DREAM, together we learn.

Spiritual Development	Moral Development	Social Development	Cultural Development
• Respect for self and others • Increasing ability to reflect • Empathy, Concern & Compassion • Expressive & creative development • Awareness and understanding of their own and others beliefs • Ability to think in terms of the whole • Readiness to challenge all that would constrain the human spirit: poverty of aspiration, lack of self-confidence and belief, indifference, force, aggression, injustice, self-interest, sexism and racism • Courage and persistence in the defence of their aims, values, principles and beliefs • Appreciation of the intangible • Understanding of feelings and emotions and their likely impact • Respect for insight as well as knowledge and reason	• Ability to distinguish right from wrong • Confidence to act consistently in accordance with their own principles • Respect for others' needs, interests and feelings as well as their own • Desire to explore their own and others' views • A commitment to personal values in areas which are considered right by some and wrong by others • Ability to make responsible and reasoned judgements on moral dilemmas • Ability to think through consequences of their own and others' actions • Considerate style of life • Understanding of the need to review and reassess their values, codes and principles in the light of experience	• Works successfully as a member of a group or team • Appreciates the right and responsibilities of individuals within the wider social setting • Takes advice offered by those in authority or counselling roles • Participates in activities relevant to the community • Exercises responsibility • Resolves conflict • Adjusts to a range of social contexts by appropriate and sensitive behaviour • Challenges, when necessary and in appropriate ways, the values of a group or wider community • Understands how societies function and are organised in structures such as the family, the school and local and wider communities • Shares values and opinions with others and works towards consensus • Reflects on their own contribution to society	• Appreciation of the diversity and interdependence of cultures • Ability to appreciate cultural diversity and accord dignity and respect to other people's values and beliefs, thereby challenging racism and valuing race equality • Ability to recognise and understand their own cultural assumptions and values • Understanding of the influences which have shaped their own cultural heritage • Understanding of the dynamic, evolutionary nature of cultures • Sense of personal enrichment through encounter with cultural media and tradition from a range of cultures • Regard for the rights of human achievement in all cultures and societies • Openness to new ideas and a willingness to modify cultural values in the light of experience

		• Relates well to other peoples' social skills and personal qualities • Understands the notion of interdependence in an increasingly complex society	

MATHEMATICS CURRICULUM IMPLEMENTATION: EXTRA-CURRICULAR CLUBS

Being able to offer our children a wide range of diverse extra-curricular activities is very important as it encourages them to become independent, confident and successful members of the community. Clubs are available for both KS1 and KS2 children.

The list of clubs is ever changing but generally includes:

- Eco-Council
- Gardening Club
- Spanish Club
- Mindfulness
- Sports Clubs
- SATs Booster Sessions for Year 2 and 6 (run at lunchtime and after school)

MATHEMATICS CURRICULUM IMPLEMENTATION: HEALTH & SAFETY AND SAFEGUARDING

Risk Assessments are completed for all off site activities.

Appropriate staff supervision ratios are ensured.

Approved venues and transport are used.

MATHEMATICS CURRICULUM IMPLEMENTATION: STAFF DEVELOPMENT

Key staff undertake ongoing professional development as identified through consistent, embedded monitoring and regular informal professional conversations.

Mathematics lead attends a Maths Hub training session every term to ensure that all training across school is up to date. We are also part of the NW3 Teacher Research Group (TRG)- developed to ensure that the mastery mathematics approach is embedded across school.

MATHEMATICS CURRICULUM IMPACT

MATHEMATICS LESSONS
All children have consistent access to high quality, safe and broad mathematics lessons which: • Benefit health and well being • Develop their knowledge, skills and experiences of mathematics • Build the knowledge, skills, values and confidence necessary for them to make positive, healthy decisions throughout their lives • Develop their social, moral, spiritual and cultural understanding by linking their understating and learning to their lives.
MATHEMATICS EXTRA CURRICULAR CLUBS
All children have access to: • Extra–curricular opportunities such as Eco-Council, Gardening Club, Spanish Club, Mindfulness, Sports Clubs and Y2/6 Booster Club • Opportunities to socialise with different peer groups • Opportunities to make a positive contribution to our school and community – walking to school, recycling, litter picking and supporting charities
PROFESSIONAL DEVELOPMENT & RESEARCH
• Continuous Staff development is planned annually • Book Reflections enable staff to develop and extend their knowledge of the mastery approach • Termly meetings with the other TRG leads allows for resources to be shared and questions to be asked