

Carlton Miniott Primary Long Term Mathematics Planning Year 1

Autumn Term	Spring Term	Summer Term
<p>Number and place value</p> <ul style="list-style-type: none"> count in steps of 10 place value, read and write numbers to 20 <p>Addition and subtraction</p> <ul style="list-style-type: none"> represent and use number bonds and related subtraction facts to 5 then 10 add and subtract two one digit numbers use symbols +, -, = <p>Multiplication and division</p> <ul style="list-style-type: none"> solve one-step problems using concrete objects, pictorial representations and arrays with teacher support -doubling <p>Fractions</p> <ul style="list-style-type: none"> recognise, find and name a half of an object, shape or quantity <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> compare, describe and solve practical problems using non-standard units <p>Measurement – money</p> <ul style="list-style-type: none"> recognise and know the value of different denominations of coins and notes <p>Measurement – time</p> <ul style="list-style-type: none"> sequence events using language of time tell the time to the hour and draw the hands on a clock face to show these times <p>Geometry - properties of shape</p> <ul style="list-style-type: none"> recognise and name common 2-D shapes <p>Geometry – position and movement</p> <ul style="list-style-type: none"> describe position, direction and movement, including whole & half turns 	<p>Number and place value</p> <ul style="list-style-type: none"> count in steps of 2 place value, read and write numbers to 50 read and write numbers to 20 in words <p>Addition and subtraction</p> <ul style="list-style-type: none"> represent and use number bonds and related subtraction facts within 20 add and subtract one digit and two digit numbers to 20, including missing numbers <p>Multiplication and division</p> <ul style="list-style-type: none"> solve one-step problems using concrete objects, pictorial representations and arrays with teacher support -grouping and sharing <p>Fractions</p> <ul style="list-style-type: none"> recognise, find and name a quarter of an object, shape or quantity <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> measure and record lengths and heights, mass/weight capacity and volume and time using non-standard units <p>Measurement – money</p> <ul style="list-style-type: none"> recognise and know the value of different denominations of coins and notes <p>Measurement – time</p> <ul style="list-style-type: none"> recognise and use the language relating to dates, including days of the week, weeks, months and years tell the time to half past the hour and draw the hands on a clock face <p>Geometry - properties of shape</p> <ul style="list-style-type: none"> recognise and name common 3-D shapes <p>Geometry – position and movement</p> <ul style="list-style-type: none"> describe position, direction and movement, including whole, 1/2, 1/4 & 3/4 turns 	<p>Number and place value</p> <ul style="list-style-type: none"> count in steps of 5. place value, read and write numbers to 100 read and write numbers to 20 words <p>Addition and subtraction</p> <ul style="list-style-type: none"> represent and use number bonds and related subtraction facts within 20 add and subtract one digit and two digit numbers to 20 including zero <p>Multiplication and division</p> <ul style="list-style-type: none"> solve one-step problems using concrete objects, pictorial representations and arrays with the support of the teacher-finding simple fractions $\frac{1}{2}$ $\frac{1}{4}$ <p>Fractions</p> <ul style="list-style-type: none"> solve problems involving halves and quarters in different contexts <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> solve problems relating to lengths and heights, mass/weight, capacity and volume and time using standard units, rulers, weighing scales and measuring containers. <p>Measurement – money</p> <ul style="list-style-type: none"> solve problems involving coins <p>Measurement – time</p> <ul style="list-style-type: none"> tell the time to the hour and half past the hour and draw the hands on a clock face <p>Geometry - properties of shape</p> <ul style="list-style-type: none"> sort 2-D shapes and 3-D shapes according to their properties <p>Geometry – position and movement</p> <ul style="list-style-type: none"> describe position, direction and movement, including whole, 1/2, 1/4 & 3/4 turns <p>Mastery Teaching and opportunities to plug the gaps.</p>

Carlton Miniott Primary Long Term Mathematics Planning Year 2

Autumn Term	Spring Term	Summer Term
<p>Number and place value</p> <ul style="list-style-type: none"> Count in steps of 2 and 10. Place value, reading and writing numbers to 50 and 100. <p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> Recall and use addition and subtraction facts to 10 and 20. Recall and use multiplication and division facts for the 2 times tables Solve problems using concrete objects and pictorial representations. <p>Fractions</p> <ul style="list-style-type: none"> Recognise, find, name and write fractions $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity. <p>Measurement</p> <ul style="list-style-type: none"> Compare and order lengths, mass, volume/capacity <p>Measurement – money</p> <ul style="list-style-type: none"> Recognise and use symbols for pounds (£) and pence (p). <p>Measurement – time</p> <ul style="list-style-type: none"> Know the number of minutes in an hour and the number of hours in a day. <p>Geometry - properties of shape</p> <ul style="list-style-type: none"> Compare and sort common 2-D and 3-D shapes and everyday objects. <p>Geometry – position and movement</p> <ul style="list-style-type: none"> Order and continue patterns and sequences. <p>Statistics</p> <ul style="list-style-type: none"> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. 	<p>Number and place value</p> <ul style="list-style-type: none"> Count in steps of 3 and 5. Place value, reading and writing numbers to 100 and 1000. <p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> Recall and use addition and subtraction facts to 20 and 100. Recall and use multiplication and division facts for the 2, 5 and 10 times tables Solve problems using concrete objects and pictorial representations. Confidently use the +, -, x, ÷ and = signs, using the inverse. <p>Fractions</p> <ul style="list-style-type: none"> Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. <p>Measurement</p> <ul style="list-style-type: none"> Choose and use standard units to estimate and measure in m/cm; kg/g; °C and litres/ml and solve problems. <p>Measurement – money</p> <ul style="list-style-type: none"> Find different combinations of coins and solve problems. <p>Measurement – time</p> <ul style="list-style-type: none"> Tell and write the time to five minutes. <p>Geometry - properties of shape</p> <ul style="list-style-type: none"> Name and describe the properties of 2-D shapes and 3-D shapes. <p>Geometry – position and movement</p> <ul style="list-style-type: none"> Describe position, direction and movement, using right angles for $\frac{1}{4}$ turns. <p>Statistics</p> <ul style="list-style-type: none"> Interpret and construct simple pictograms, tally charts, block diagrams and simple tables. 	<p>Number and place value</p> <ul style="list-style-type: none"> Count in steps of 2, 3, 5 and 10. Place value of numbers to 1000. <p>Addition, subtraction, multiplication and division</p> <ul style="list-style-type: none"> Recall and use addition and subtraction facts to 20 and 100. Recall and use multiplication and division facts for the 2, 5 and 10 times tables Solve problems using concrete objects and pictorial representations. Confidently use the +, -, x, ÷ and = signs, using the inverse. <p>Fractions</p> <ul style="list-style-type: none"> Write simple fractions for example, $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$. <p>Measurement</p> <ul style="list-style-type: none"> Choose and use standard units to estimate, measure and solve problems. <p>Measurement – money</p> <ul style="list-style-type: none"> Find different combinations of coins and solve problems. <p>Measurement – time</p> <ul style="list-style-type: none"> Tell and write the time to five minutes. <p>Geometry - properties of shape</p> <ul style="list-style-type: none"> Name and describe the properties of 2-D shapes and 3-D shapes. <p>Geometry – position and movement</p> <ul style="list-style-type: none"> Describe position, direction and movement, using right angles for $\frac{1}{4}$ turns. <p>Statistics</p> <p>Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.</p> <p>Mastery Teaching and opportunities to plug the gaps. This will depend on May assessments and OTrack Data.</p>

Carlton Miniott Primary Long Term Mathematics Planning Year 3

Autumn Term	Spring Term	Summer Term
<p>Number and place value</p> <ul style="list-style-type: none"> 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 find 10 or 100 more or less than any number count from 0 in multiples of 4 and 100 <p>Addition and subtraction</p> <ul style="list-style-type: none"> add and subtract numbers (up to 3 digits) mentally estimate the answer to a calculation and use inverse operations to check answers <p>Multiplication and division</p> <ul style="list-style-type: none"> recall and use multiplication and division facts for the 3 times table <p>Fractions</p> <ul style="list-style-type: none"> recognise, find and write fractions of a discrete set of objects compare and order unit fractions, and fractions with the same denominator <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> measure, compare, add and subtract: lengths <p>Measurement – time</p> <ul style="list-style-type: none"> know the number of: seconds in a minute, days in each month, year and leap year tell and write the time from an analogue clock, including Roman numerals, and 12-hour and 24-hour clocks <p>Geometry - properties of shape</p> <ul style="list-style-type: none"> draw 2-D shapes & make 3-D shapes and describe them identify horizontal and vertical lines and pairs of perpendicular and parallel lines 	<p>Number and place value</p> <ul style="list-style-type: none"> count from 0 in multiples of 8 & 50 identify, represent and estimate numbers using different representations <p>Addition and subtraction</p> <ul style="list-style-type: none"> add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction <p>Multiplication and division</p> <ul style="list-style-type: none"> recall and use multiplication and division facts for the 4 times table write and calculate mathematical statements for \times & \div using the multiplication tables that they know, using mental then formal written methods <p>Fractions</p> <ul style="list-style-type: none"> add and subtract fractions with the same denominator within one whole 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 <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> measure, compare, add and subtract: mass (kg/g); volume/capacity (l/ml) measure the perimeter of simple 2-D shapes <p>Measurement – money</p> <ul style="list-style-type: none"> add and subtract amounts of money to give change, using both £ and p in practical contexts <p>Measurement – time</p> <ul style="list-style-type: none"> compare durations of events 	<p>Number and place value</p> <ul style="list-style-type: none"> count in multiples of 4, 8, 50 and 100 read and write numbers up to 1000 in numerals and in words solve number problems and practical problems involving these ideas <p>Addition and subtraction</p> <ul style="list-style-type: none"> estimate the answer to a calculation and use inverse operations to check answers solve problems, including missing number problems, using number facts, & place value <p>Multiplication and division</p> <ul style="list-style-type: none"> recall and use multiplication and division facts for the 8 times table solve problems, including missing number problems, involving \times & \div, including positive integer scaling problems and correspondence problems <p>Fractions</p> <ul style="list-style-type: none"> recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators recognise and show, using diagrams, equivalent fractions solve problems involving fractions <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> measure the perimeter of simple 2-D shapes <p>Measurement – time</p> <ul style="list-style-type: none"> 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

Statistics

- interpret and present data using bar charts, pictograms and tables
- solve one-step and two-step questions using scaled bar chart, pictograms and tables

Geometry - properties of shape

- identify right angles, recognise that two right angles make a half-turn, three make three quarters of a turn and four a complete turn

Statistics

- interpret and present data using bar charts, pictograms and tables
- solve one-step and two-step questions using scaled bar chart, pictograms and tables.

Geometry - properties of shape

- identify whether angles are greater than or less than a right angle

Mastery Teaching and opportunities to plug the gaps.

Carlton Miniott Primary Long Term Mathematics Planning Year 4

Autumn Term	Spring Term	Summer Term
<p>Number and place value</p> <ul style="list-style-type: none"> count in multiples of 6 and 1000 recognise the place value of each digit in a four-digit number order and compare numbers beyond 1000 round any number to the nearest 10, 100 or 1000 <p>Addition and subtraction</p> <ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods <p>Multiplication and division</p> <ul style="list-style-type: none"> recall multiplication and division facts for tables learnt so far 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 multiply two-digit and three-digit numbers by a one-digit number using formal written layout <p>Fractions</p> <ul style="list-style-type: none"> count up and down in hundredths recognise and write decimal equivalents of any number of tenths or hundredths recognise and write decimal equivalents recognise and show, using diagrams, families of common equivalent <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> convert between different units of measure <p>Measurement – time</p> <ul style="list-style-type: none"> read & write time on analogue and digital 12- and 24-hour clocks <p>Geometry – position and movement</p> <ul style="list-style-type: none"> describe positions on a 2-D grid as 	<p>Number and place value</p> <ul style="list-style-type: none"> count in multiples of 7 and 25 count backwards through zero to include negative numbers find 1000 more or less than a given number identify, represent and estimate numbers using different representations <p>Addition and subtraction</p> <ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why <p>Multiplication and division</p> <ul style="list-style-type: none"> recall multiplication and division facts for tables learnt so far 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 multiply two-digit and three-digit numbers by a one-digit number using formal written layout <p>Fractions</p> <ul style="list-style-type: none"> round decimals with one decimal place to the nearest whole number compare numbers with the same number of decimal places up to two decimal places solve simple measure and money problems involving fractions and decimals to two decimal places <p>Measurement – weight, capacity, length</p> <ul style="list-style-type: none"> measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres 	<p>Number and place value</p> <ul style="list-style-type: none"> count in multiples of 9 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. solve number and practical problems involving place value <p>Addition and subtraction</p> <ul style="list-style-type: none"> add and subtract numbers with up to 4 digits using the formal written methods solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why estimate and use inverse operations to check answers to a calculation <p>Multiplication and division</p> <ul style="list-style-type: none"> recall multiplication and division facts for $\times 11$ & $\times 12$ recognise and use factor pairs and commutativity in mental calculations 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. <p>Fractions</p> <ul style="list-style-type: none"> find the effect of dividing a one- or two-digit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths add and subtract fractions with the same denominator solve problems involving increasingly harder fractions to calculate quantities, and fractions

coordinates in the first quadrant

Statistics

- interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs.

Measurement – money

- estimate, compare and calculate different measures, including money in pounds and pence

Measurement – time

- read, write and convert time between analogue and digital 12- and 24-hour clocks

Geometry - properties of shape

- identify acute and obtuse angles and compare and order angles up to two right angles by size
- 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.

Geometry – position and movement

- describe position,

to divide quantities

Measurement – weight, capacity, length

- find the area of rectilinear shapes by counting squares

Measurement – time

- solve problems involving converting from hours to minutes; minutes to seconds; years to months; weeks to days

Geometry - properties of shape

- compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes

Geometry – position and movement

- describe movements between positions as translations of a given unit to the left/right and up/down
- plot specified points and draw sides to complete a given polygon

Statistics

- solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs

Mastery Teaching and opportunities to plug the gaps.

Carlton Miniott Primary Long Term Mathematics Planning Year 5

Autumn Term	Spring Term	Summer Term
<p>Number and Place Value</p> <ul style="list-style-type: none"> 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 Round any number up to 1000000 to the nearest 10,100,1000,10000,100000 <p>Addition, Subtraction, Multiplication and Division</p> <ul style="list-style-type: none"> Add and subtract whole numbers with more than 4 digits, including using formal written methods Add and subtract 2 digit numbers mentally Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why Multiply and divide numbers mentally drawing upon known facts Identify multiples and factors, including factor pairs of a number and common factors Multiply numbers up to 4 digits by 1- or 2-dig numbers using a formal written method Divide numbers up to 4 digits by a 1-dig number using the formal written method of short division and interpret remainders appropriately for the context Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign <p>Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> Read, write, order and compare numbers with up to 3 decimal places Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents 	<p>Number and Place Value</p> <ul style="list-style-type: none"> Solve number problems and practical problems involving number and place value <p>Addition, Subtraction, Multiplication and Division</p> <ul style="list-style-type: none"> Know and use the vocabulary of prime numbers, prime factors and composite numbers Establish whether a number up to 100 is prime and recall prime numbers up to 19 Recognise and use square numbers and cube numbers, and the notation for squared and cubed Solve problems involving multiplication and division using their knowledge of factors and multiples, squares and cubes <p>Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> Solve problems involving number up to 3 decimal places Recognise mixed numbers and improper fractions and convert from one form to the other and write mathematical statements greater than 1 as a mixed number Multiply proper fractions and mixed numbers by whole numbers <p>Measurement</p> <ul style="list-style-type: none"> Use all four operations to solve problems involving measure using decimal notation, including scaling Understand and use approximate equivalences between metric units and common imperial units <p>Geometry</p> <ul style="list-style-type: none"> Distinguish between regular and irregular polygons based on reasoning about equal sides and angles Use the properties of rectangles to deduce related facts and find missing lengths and 	<p>Number and Place Value</p> <ul style="list-style-type: none"> Use rounding to check answer to calculations and determine levels of accuracy in the context of a problem Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero Read Roman numerals to 1000 (M) and recognise years written in Roman numerals <p>Addition, Subtraction, Multiplication and Division</p> <ul style="list-style-type: none"> Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates <p>Fractions, Decimals and Percentages</p> <ul style="list-style-type: none"> Add and subtract fractions with the same denominator and denominators that are multiples of the same number Read and write decimal numbers as fractions (e.g. hundredths) Recognise the percent symbol and understand that percent relates to number of parts per hundred, write percentages a fraction with denominator 100, and as a decimal Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$ etc and those fractions with a denominator of a multiple of 10 or 25 <p>Measurement</p> <ul style="list-style-type: none"> Calculate and compare the area of rectangles, and including using standard units, square centimetres and square metres and estimate the area of irregular shapes Estimate volume and capacity

- Multiply and divide whole numbers and those involving decimals by 10,100,1000
- Compare and order fractions whose denominators are all multiples of the same number
- Identify, name and write equivalent fractions of a given fraction
- Round decimals with 2 decimal places to the nearest whole number and to one decimal place

Measurement

- Solve problems involving converting between units of time
- Convert between different units of metric measure
- Measure and calculate the perimeter of composite rectilinear shapes in cm and mm

Geometry

- Draw given angles and measure them in degrees.
- Know angles are measured in degrees, estimate and compare acute, obtuse and reflex angles
- Identify angles at a point and one whole turn, angles at a point on a straight line and half a turn, and other multiples of 90°

Statistics

- Complete, read and interpret information in tables, including timetables

angles
Statistics

- Solve comparison, sum and difference problems using information presented in a line graph

Geometry

- 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
- Identify 3D shapes from 2D representations

Mastery Teaching and opportunities to plug the gaps.
This will depend on May assessments and OTrack Data.

Carlton Miniott Primary Long Term Mathematics Planning Year 6

Autumn Term	Spring Term	Summer Term
Revision of all learning objectives where learning needs are identified		
<p>Number and place value</p> <ul style="list-style-type: none"> • 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 • solve number and practical problems that involve all of the above <p>Number - +, -, x, ÷</p> <ul style="list-style-type: none"> • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • use estimation to check answers to calculations and • determine, in the context of a problem, an appropriate degree of accuracy • solve problems which require answers to be rounded to specified degrees of accuracy, e.g. round to 3 decimal places, money (round to 2), round to nearest tenth, round to nearest whole number etc. • Multiply 3,4 and 5 digit numbers by a 1 digit number using the formal multiplication method • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • Answer problems related to short and long multiplication • divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context 	<p>Number - +, -, x, ÷</p> <ul style="list-style-type: none"> • use their knowledge of the order of operations to carry out calculations involving the four operations • solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why • Solve multi-step problems <p>Fractions</p> <ul style="list-style-type: none"> • add and subtract fractions with different denominators • add and subtract fractions and mixed numbers • Multiples, factors, primes • multiply simple pairs of fractions, writing the answer in its simplest form, e.g. $\frac{1}{4} \times \frac{1}{2} = \frac{1}{8}$ • associate fractions with division • convert fractions into decimals using division • Divide fractions by whole numbers, e.g. $\frac{1}{3} \div 2 = \frac{1}{6}$. Show pictorially. • Add, subtract, multiply fractions <p>Ratio and Proportion</p> <ul style="list-style-type: none"> • Solve problems involving ratio, e.g. in recipes, where missing values can be found using multiplication and division • Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples, e.g. for every egg you need 3 spoonfuls of flour or $\frac{3}{5}$ are boys, how many girls? • Find percentages of any amount 	<p>Mastery Teaching and opportunities to plug the gaps.</p> <p>Opportunities for problem solving in greater depth:</p> <p>Functional skills maths – plan a party/trip/holiday/dinner party.</p> <p>Use the outside for maths – Carlton Miniott Maths trail.</p> <p>Apply maths in more practical way, such as baking, measuring, timing etc.</p> <p>Use data effectively – pupils to develop their own questions to investigate which will allow them to gather, represent and interpret data.</p> <p>Link to ICT – use programing to create maths games for younger children - link to App inventor.</p>

<ul style="list-style-type: none"> • divide numbers up to 4 digits by a two-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 • solve problems involving long and short division. <p>Fractions (including decimals and percentages)</p> <ul style="list-style-type: none"> • identify the value of each digit in numbers given to three decimal places • multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places • solve problems which require answers to be rounded to specified degrees of accuracy • Links between fractions, decimals, percentages • Converting between each one. • simplify fractions • find equivalent fractions • order fractions <p>Algebra</p> <ul style="list-style-type: none"> • introduction of = meaning equivalent to. E.g. $10 + 6 = ?? - 3?$ Etc. (balancing equations) • Using symbols for letters • Finding patterns and rules • Nth term <p>Measurement</p> <ul style="list-style-type: none"> • use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to up to three decimal places • convert between miles and kilometres. • solve problems involving the calculation and conversion of units of measure, using decimal notation to three decimal places where appropriate 	<ul style="list-style-type: none"> • Solve problems involving fractions, decimals and percentages • Convert numbers into percentages, e.g. 12/20 cubes are black, what is this as a percentage? <p>Algebra</p> <ul style="list-style-type: none"> • Find pairs of numbers that satisfy an equation with 2 unknowns. • Use simple formula • Use inverse to find answers <p>Measurement</p> <ul style="list-style-type: none"> • Calculate, estimate and compare volumes of cubes and cuboids using standard units, cm³, m³ extending to mm³, km³. • Read scales on number lines and measuring equipment. • Read and interpret timetables. Find differences in times, add times. Read train/bus timetables. Know standard measurements e.g. seconds in a minute etc <p>Geometry – Properties of Shape</p> <ul style="list-style-type: none"> • Use a protractor to measure all angles • Use knowledge of angles on a straight line/in shapes to find missing angles. • Draw and translate rectangles, squares, parallelograms and rhombuses in all 4 quadrants • Predict missing quadrants using knowledge of properties of 2d shapes. • Reflect shapes across the axis in all 4 quadrants. • Calculate coordinates of missing sides after reflection. • Accurately measure e.g. side of a triangle, internal angles etc. • Triangles – area of, angles, construction • Draw 2d shapes accurately, e.g. <i>Join dots on the grid to make a quadrilateral that has 3 acute angles.</i> <p>Statistics</p>	
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<ul style="list-style-type: none"> • use, read, write and convert between standard units, converting measurements of length, mass and time from a smaller unit of measure to a larger unit, and vice versa, using decimal notation to three decimal places <p>Geometry – properties of shapes</p> <ul style="list-style-type: none"> • Recognise, describe and build simple 3-D shapes, including making nets • Find areas of rectangles, parallelograms, triangles <p>Statistics</p> <ul style="list-style-type: none"> • interpret and construct pie charts and line graphs and use these to solve problems. 	<ul style="list-style-type: none"> • Calculate and interpret the mean as an average. • Create own question and gather own data to produce graphs and charts, find mean of data. • Understand and interpret a variety of tables and charts – more unusual ones such as horizontal. • Interpret a variety of graphs <p>Time</p> <ul style="list-style-type: none"> • Find differences between times • Convert between 12 and 24 hour • Read timetables. 	
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