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|  | | | **Castle Academy**  **Maths Curriculum Overview** | | | | | | |  | |
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| **Number** | **Calculations** | **Fractions/Decimals/Percentages/Ratio** | | **Measurement** | **Time** | **Geometry** | **Position** | **Statistics** | **Fraction Calculations** | | **Algebra** |
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|  | Year 1 | | Year 2 | | Year3 | Year 4 | Year 5 | Year 6 |
| Autumn | Number 1 | | Number 1 | | Number 1 | Number 1 | Number 1 | Number 1 |
| Calculation 1 | | Calculation 1 | Calculation 1 |
| Calculation 1 | | Calculation 1 | Calculation 1 |
| Measurement 1 | Number 2 |
| Geometry 1 | Position 1 | Time 1 |
| Number 2 | | Measurement 1 | | Measurement 1 | Time 1 | Statistics 1 | Number 2 |
| Calculation 2 | Calculation 2 | FDPR 1 |
| Calculation 2 | | Calculation 2 |
| Algebra 1 |
| Calculation 2 | | Geometry 1 | Geometry 1 |
| Statistics 1 | |
| Geometry 2 | | Position 1 | | Position 1 |
| Spring | Position 2 | | Geometry 1 | | Time 1 | FDPR 1 | Measurement 1 | FDPR 1 |
| Time 1 | |
| Number 3 | | Time 1 | Fraction Calculations |
| Assessments | | Calculation 3 | FDPR 1 | Assessments |
| Calculation 3 | | Measurement 2 | | Statistics 2 | Fraction Calculations |
| Algebra 2 |
| Measurement 1 | | Time 1 | | Fractions 1 | FDPR 2 | FDPR 1 | Geometry 2 |
| Calculation 4 | | Measurement 2 | Measurement 2 |
| Assessments | | Fractions 1 | | Assessments | Assessments | Assessments |
| Calculation 4 | | Fractions 1 | FDPR 2 | Measurement 2 |
| Fractions 1 | | Geometry 1 | Number 3 | Statistics 1 |
| Summer | Fractions 1 | | Measurement 3 | | Geometry 1 | Measurement 2 | Number 4 | NC Test Preparation |
| Geometry 3 | | Measurement 4 | | Statistics 1 | Geometry 1 | Position 1 |
| Measurement 2 | | Measurement 5 | | Geometry 2 |
| Number 4 | | NC Test Preparation | | Fractions 2 | Geometry 2 |
| FDPR 2 | NC Test Administration |
| NC Test Administration | | Position 1 | Secondary Transition Scheme |
| Calculation 5 | | Geometry 1 | Measurement 3 | Fraction Calculations |
| Calculation 5 | | Number 2 | | Geometry 1 | Measurement 3 | Fraction Calculations | Secondary Transition Scheme |
| Measurement 2 | Number 5 |
| Measurement 3 | | Calculation 3 | | Time 2 |
| Assessments | | Assessments | Assessments | Assessments |
| Calculation 6 | | Statistics 2 | Geometry 2 | Measurement 2 | Statistics 3 | Consolidation |
| Fractions 2 | | Consolidation | | Consolidation | Consolidation |
| Consolidation | |

|  | | **Castle Academy - Maths Curriculum** | | | | | | | | |  |
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| **Year 1** | | | Aut | | Spr | | Sum | | Key Vertical Maths Links | Horizontal/  Diagonal Links | |
| 1 | 2 | 1 | 2 | 1 | 2 |
| Number | Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number | |  |  |  |  |  |  | **EYFS Maths**   * Recognise some numerals of personal significance * Count actions or objects which cannot be moved * Count an irregular arrangement of up to ten objects * Estimate how many objects they can see and check by counting them * Use the language of ‘more’ and ‘fewer’ to compare two sets of objects * Record, using marks that they can interpret and explain * Begin to identify own mathematical problems based on own interests and fascinations * 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 |  | |
| Given a number, identify 1 more and 1 less | |  |  |  |  |  |  |
| Count in multiples of 2s and 5s | |  |  |  |  |  |  |
| Use the language of: equal to, more than, less than (fewer), most, least | |  |  |  |  |  |  |
| Identify and represent numbers using objects and pictorial representations including the number line | |  |  |  |  |  |  |
| Count, read and write numbers to 20 in numerals and words | |  |  |  |  |  |  |
| Begin to recognise place value in numbers beyond 20 by reading, writing, counting and comparing numbers up to 100, supported by objects and pictorial representations. (Non-Statutory Guidance) | |  |  |  |  |  |  |
| Calculation | Represent and use number bonds and related subtraction facts within 20 | |  |  |  |  |  |  | **EYFS Numbers**   * Say the number that is one more than a given number * Find the total number of items in two groups by counting all of them * In practical activities and discussion, begin to use the vocabulary involved in adding and subtracting * Use quantities and objects, add and subtract two single-digit numbers and count on or back to find the answer |  | |
| Add and subtract one-digit numbers to 20, including 0 | |  |  |  |  |  |  |
| Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs | |  |  |  |  |  |  |
| Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 3 = ? − 7 | |  |  |  |  |  |  |
| Count in multiples of 2s, 5s and 10s | |  |  |  |  |  |  |
| 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 | |  |  |  |  |  |  |
| Fractions | Recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity | |  |  |  |  |  |  | **EYFS Numbers**   * Solve problems, including doubling, halving and sharing |  | |
| Recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity | |  |  |  |  |  |  |
| Measures | Compare, describe and solve practical problems for | lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] |  |  |  |  |  |  | **EYFS Shape Space and Measures**   * Order two or three items by length or height * Order two items by weight or capacity * Begin to use everyday language related to money * Use everyday language to talk about size, weight, capacity, position, distance, time and money to compare quantities and objects and to solve problems |  | |
| mass/weight [for example, heavy/light, heavier than, lighter than] |  |  |  |  |  |  |
| capacity/volume [for example, full/empty, more than, less than, half, half full, quarter] |  |  |  |  |  |  |
| Recognise and know the value of different denominations of coins and notes | |  |  |  |  |  |  |
| Time | Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] | |  |  |  |  |  |  | **EYFS Shape, Space and Measures**   * Use everyday language related to time * Order and sequence familiar events * Measure short periods of time in simple ways |  | |
| Recognise and use language relating to dates, including days of the week, weeks, months and years | |  |  |  |  |  |  |
| Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] | |  |  |  |  |  |  |
| Measure and begin to record time (hours, minutes, seconds) | |  |  |  |  |  |  |
| Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times | |  |  |  |  |  |  |
| Geometry | Recognise and name 2-D shapes [for example, rectangles (including squares), circles and triangles] | |  |  |  |  |  |  | **EYFS Shape, Space and Measures**   * Begin to use mathematical names for ‘solid’ 3D shapes and ‘flat’ 2D shapes, and mathematical terms to describe shapes * Select a particular named shape * Use familiar objects and common shapes to create and   recreate patterns and build models   * Recognise, create and describe patterns * Explore characteristics of everyday objects and shapes   and use mathematical language to describe them |  | |
| Recognise and name 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] | |  |  |  |  |  |  |
| Position | Describe position, direction and movement, including whole, half, quarter and three-quarter turns | |  |  |  |  |  |  | **EYFS Shape, Space and Measures**   * Describe their relative position such as ‘behind’ or ‘next to’ |  | |

|  | | | | **Castle Academy - Maths Curriculum** | | | | | | | | |  |
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| **Year 2** | | | | | Aut | | Spr | | Sum | | Key Vertical Maths Links | Horizontal/  Diagonal Links | |
| 1 | 2 | 1 | 2 | 1 | 2 |
| Number | Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward | | | |  |  |  |  |  |  | **Year 1 Number**   * Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number * Given a number, identify 1 more and 1 less * Count in multiples of 2s and 5s * Use the language of equal to, more than, less than (fewer), most, least * Identify and represent numbers using objects and pictorial representations including the number line * Count, read and write numbers to 20 in numerals and words |  | |
| Compare and order numbers from 0 up to 100; use <, > and = signs | | | |  |  |  |  |  |  |
| Identify, represent and estimate numbers using different representations, including the number line | | | |  |  |  |  |  |  |
| 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 (10s, 1s) | | | |  |  |  |  |  |  |
| Use place value and number facts to solve problems | | | |  |  |  |  |  |  |
| Calculation | Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 | | | |  |  |  |  |  |  | **Year 1 Calculations**   * Represent and use number bonds and related subtraction facts within 20 * Add and subtract one-digit numbers to 20, including 0 * Read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs * Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 3 = ? – 7 * Count in multiples of 2s, 5s and 10s * 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 |  | |
| Add and subtract numbers using concrete objects, pictorial representations, and mentally, including adding 3 one-digit numbers, a two-digit number and 1s, a two-digit number and 10s, 2 two-digit numbers | | | |  |  |  |  |  |  |
| Show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot | | | |  |  |  |  |  |  |
| Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems | | | |  |  |  |  |  |  |
| Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures | | | |  |  |  |  |  |  |
| Solve problems with addition and subtraction applying their increasing knowledge of mental and written methods | | | |  |  |  |  |  |  |
| Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers | | | |  |  |  |  |  |  |
| Show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot | | | |  |  |  |  |  |  |
| 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 | | | |  |  |  |  |  |  |
| Fractions | Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity | | | |  |  |  |  |  |  | **Year 1 Number**   * Recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity * Recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity |  | |
| Recognise the equivalence of 2/4 and 1/2 | | | |  |  |  |  |  |  |
| Write simple fractions, for example 1/2 of 6 = 3 | | | |  |  |  |  |  |  |
| Measures | Compare and order and record the results using >, < and = | | | Length/height |  |  |  |  |  |  | **Year 1 Measures**   * Compare, describe and solve practical problems for lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] * mass/weight [for example, heavy/light, heavier than, lighter than] * capacity/volume [for example, full/empty, more than, less than, half, half full, quarter] * Measure and begin to record lengths and heights, mass and weight, capacity and volume * Recognise and know the value of different denominations of coins and notes |  | |
| mass |  |  |  |  |  |  |
| volume/capacity |  |  |  |  |  |  |
| temperature |  |  |  |  |  |  |
| Choose and use appropriate standard units to estimate and measure | length/height in any direction (m/cm) to the nearest appropriate unit, using rulers. | | |  |  |  |  |  |  |
| mass (kg/g) to the nearest appropriate unit, using scales. | | |  |  |  |  |  |  |
| capacity (litres/ml) to the nearest appropriate unit, using measuring vessels | | |  |  |  |  |  |  |
| temperature (°C); to the nearest appropriate unit, using thermometers | | |  |  |  |  |  |  |
| 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 | | | |  |  |  |  |  |  |
| Time | Compare and sequence intervals of time | | | |  |  |  |  |  |  | **Year 1 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 * Compare, describe and solve practical problems for time [for example, quicker, slower, earlier, later] * Measure and begin to record time (hours, minutes, seconds) * Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times |  | |
| 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 | | | |  |  |  |  |  |  |
| Geometry | Identify and describe the properties of 2-D shapes, including the number of sides, and line symmetry in a vertical line | | | |  |  |  |  |  |  | **Year 1 Geometry**   * Recognise and name 2-D shapes [for example, rectangles (including squares), circles and triangles] * Recognise and name 3-D shapes [for example, cuboids (including cubes), pyramids and spheres] |  | |
| 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 shapes and everyday objects | |  |  |  |  |  |  |
| 3-D shapes and everyday objects | |  |  |  |  |  |  |
| Position | Order and arrange combinations of mathematical objects in patterns and sequences | | | |  |  |  |  |  |  | **Year 1 Position**   * Describe position, direction and movement, including whole, half, quarter and three-quarter turns |  | |
| 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) | | | |  |  |  |  |  |  |
| Statistics | Interpret and construct simple pictograms, tally charts, block diagrams and tables | | | |  |  |  |  |  |  | **Year 1 Number**  - Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number  - Given a number, identify 1 more and 1 less  - Identify and represent numbers using objects and pictorial representations including the number line |  | |
| 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 | | | |  |  |  |  |  |  |

|  | | | **Castle Academy - Maths Curriculum** | | | | | | | | |  |
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| **Year 3** | | | | Aut | | Spr | | Sum | | Key Vertical Maths Links | Horizontal/Diagonal Links | |
| 1 | 2 | 1 | 2 | 1 | 2 |
| Number | Find 10 or 100 more or less than a given number | | |  |  |  |  |  |  | **Year 2 Number**   * Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward * Compare and order numbers from 0 up to 100; use <, > and = signs * Identify, represent and estimate numbers using different representations, including the number line * 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 (10s, 1s) * Use place value and number facts to solve problems |  | |
| Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number | | |  |  |  |  |  |  |
| Compare and order numbers up to 1,000 | | |  |  |  |  |  |  |
| Identify, represent and estimate numbers using different representations | | |  |  |  |  |  |  |
| Read and write numbers up to 1,000 in numerals and in words | | |  |  |  |  |  |  |
| Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) | | |  |  |  |  |  |  |
| Solve number problems and practical problems involving these ideas (number and Place Value) | | |  |  |  |  |  |  |
| Calculation | Add and subtract numbers mentally, including a three-digit number and 1s, a three-digit number and 10s, a three-digit number and 100s | | |  |  |  |  |  |  | **Year 2 Calculation**   * 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, adding 3 one-digit numbers, a two-digit number and 1s, a two-digit number and 10s, 2 two-digit numbers * Show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot * Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems * Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures |  | |
| Add and subtract numbers with up to 3 digits, using a variety of methods | | |  |  |  |  |  |  |
| 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 | | |  |  |  |  |  |  |
| Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | | |  |  |  |  |  |  |
| Show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot | | |  |  |  |  |  |  |
| Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and a variety of written methods | | |  |  |  |  |  |  |
| Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | | |  |  |  |  |  |  |
| 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 objects | | |  |  |  |  |  |  |
| Fractions | Count up and down in tenths | | |  |  |  |  |  |  | **Year 2 Fractions**   * Recognise, find, name and write fractions 1/3, 1/4, 2/4 and 3/4 of a length, shape, set of objects or quantity * Recognise the equivalence of 2/4 and 1/2 * Write simple fractions, for example 1/2 of 6 = 3 |  | |
| Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators | | |  |  |  |  |  |  |
| Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 | | |  |  |  |  |  |  |
| Recognise, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators | | |  |  |  |  |  |  |
| Compare and order unit fractions, and fractions with the same denominators | | |  |  |  |  |  |  |
| Recognise and show, using diagrams, equivalent fractions with small denominators | | |  |  |  |  |  |  |
| Add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7 ] | | |  |  |  |  |  |  |
| Solve problems that involve the above | | |  |  |  |  |  |  |
| Measures | Solve problems that involve the above | | lengths (m/cm/mm) |  |  |  |  |  |  | **Year 2 Measures**   * Compare and order and record the results using >, < and = lengths, mass, capacity and temperature * Compare and order and record the results using >, < and = * Choose and use appropriate standard units to estimate and measure length/height (m/cm), mass (kg/g), capacity (l/ml) and temperature (°C) to the nearest appropriate unit * 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 |  | |
| mass (kg/g) |  |  |  |  |  |  |
| capacity (l/ml) |  |  |  |  |  |  |
| Measure, add and subtract | lengths (m/cm/mm) | |  |  |  |  |  |  |
| mass (kg/g) | |  |  |  |  |  |  |
| capacity (l/ml) | |  |  |  |  |  |  |
| Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | | |  |  |  |  |  |  |
| Measure the perimeter of simple 2-D shapes | | |  |  |  |  |  |  |
| Add and subtract amounts of money to give change, using both £ and p in practical contexts | | |  |  |  |  |  |  |
| Time | Compare durations of events [for example, to calculate the time taken by particular events or tasks] | | |  |  |  |  |  |  | **Year 2 Time**   * Compare and sequence intervals of 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 |  | |
| 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, am/pm, morning, afternoon, noon and midnight | | |  |  |  |  |  |  |
| Tell and write the time from an analogue clock, including using 12-hour clocks, 24-hour clocks and using Roman Numerals from I to XII | | |  |  |  |  |  |  |
| Know the number of seconds in a minute and the number of days in each month, year and leap year | | |  |  |  |  |  |  |
| Geometry | Identify horizontal and vertical lines and pairs of perpendicular and parallel lines | | |  |  |  |  |  |  | **Year 2 Geometry**   * 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 |  | |
| Draw 2-D shapes | | |  |  |  |  |  |  |
| Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them | | |  |  |  |  |  |  |
| Recognise angles as a property of shape or a description of a turn | | |  |  |  |  |  |  |
| Identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle | | |  |  |  |  |  |  |
| Statistics | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | | |  |  |  |  |  |  | **Year 2 Statistics**   * Interpret and construct simple pictograms, tally charts, block diagrams and 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 |  | |
| Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | | |  |  |  |  |  |  |

|  | | **Castle Academy - Maths Curriculum** | | | | | | | |  | |
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| **Year 4** | | | Aut | | Spr | | Sum | | Key Vertical Maths Links | | Horizontal/  Diagonal Links |
| 1 | 2 | 1 | 2 | 1 | 2 |
| Number | Count backwards through 0 to include negative numbers | |  |  |  |  |  |  | **Year 3 Number**   * Find 10 or 100 more or less than a given number * Count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number * Count up and down in tenths (From Fractions) * Compare and order numbers up to 1,000 * Identify, represent and estimate numbers using different representations * Read and write numbers up to 1,000 in numerals and in words * Recognise the place value of each digit in a 3-digit number (100s, 10s, 1s) * recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 * Solve number problems and practical problems involving these ideas (number and Place Value) | |  |
| Find 1,000 more or less than a given number | |  |  |  |  |  |  |
| Order and compare numbers beyond 1,000 | |  |  |  |  |  |  |
| Identify, represent and estimate numbers using different representations | |  |  |  |  |  |  |
| Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value | |  |  |  |  |  |  |
| Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) | |  |  |  |  |  |  |
| 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 (From Fractions) | |  |  |  |  |  |  |
| Round any number to the nearest 10, 100 or 1,000 | |  |  |  |  |  |  |
| Recognise and use factor pairs and commutativity in mental calculations | |  |  |  |  |  |  |
| Calculation | Add and subtract numbers with up to 4 digits using a variety of methods | |  |  |  |  |  |  | **Year 3 Calculations**   * Add and subtract numbers mentally, including; a three-digit number and 1s, a three-digit number and 10s, a three-digit number and 100s * Add and subtract numbers with up to 3 digits, using a variety of methods * 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 * Recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables * Show that multiplication of 2 numbers can be done in any order (commutative) and division of 1 number by another cannot * Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit numbers, using mental and a variety of written methods | |  |
| 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 | |  |  |  |  |  |  |
| Count in multiples of 6, 7, 9, 25 and 1,000 | |  |  |  |  |  |  |
| Recall 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 3 numbers | |  |  |  |  |  |  |
| Multiply two-digit and three-digit numbers by a one-digit number using a variety of methods | |  |  |  |  |  |  |
| Solve problems involving multiplying and adding, including using the distributive law to multiply two-digit numbers by 1 digit, integer scaling problems and harder correspondence problems such as n objects are connected to m objects | |  |  |  |  |  |  |
| Fractions | Count up and down in hundredths | |  |  |  |  |  |  | **Year 3 Fractions**   * Count up and down in tenths * Recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators * Recognise that tenths arise from dividing an object into 10 equal parts and in dividing one-digit numbers or quantities by 10 * Compare and order unit fractions, and fractions with the same denominators * Recognise and show, using diagrams, equivalent fractions with small denominators * Add and subtract fractions with the same denominator within one whole [for example, 5/7 + 1/7 = 6/7 ] | |  |
| recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 | |  |  |  |  |  |  |
| 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 | |  |  |  |  |  |  |
| Recognise and show, using diagrams, families of common equivalent fractions | |  |  |  |  |  |  |
| Compare numbers with the same number of decimal places up to 2 decimal places | |  |  |  |  |  |  |
| Recognise and write decimal equivalents of any number of tenths or hundreds | |  |  |  |  |  |  |
| Recognise and write decimal equivalents to 1/4 , 1/2 , 3/4 | |  |  |  |  |  |  |
| Add and subtract fractions with the same denominator | |  |  |  |  |  |  |
| Round decimals with 1 decimal place to the nearest whole number | |  |  |  |  |  |  |
| 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 | |  |  |  |  |  |  |
| Measures | Estimate and compare different measures | |  |  |  |  |  |  | **Year 3 Measures**   * Compare lengths (m/cm/mm), Mass (kg/g), capacity (l/ml) * Measure, add and subtract lengths (m/cm/mm), mass (kg/g) and Capacity (l/ml) * Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction * Measure the perimeter of simple 2-D shapes | |  |
| Calculate different measures | |  |  |  |  |  |  |
| Convert between different units of measure [for example, kilometre to metre; hour to minute] | |  |  |  |  |  |  |
| Solve simple measure and money problems involving fractions and decimals to 2 decimal places | |  |  |  |  |  |  |
| Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | |  |  |  |  |  |  |
| Find the area of rectilinear shapes by counting squares | |  |  |  |  |  |  |
| Estimate, compare and calculate different measures, including money in pounds and pence | |  |  |  |  |  |  |
| Time | Read, write and convert time between analogue and digital 12-hour and 24-hour clocks | |  |  |  |  |  |  | **Year 3 Time**   * Tell and write the time from an analogue clock, including using 12-hour clocks, 24-hour clocks and using Roman Numerals from I to XII * Know the number of seconds in a minute and the number of days in each month, year and leap year | |  |
| Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days | |  |  |  |  |  |  |
| Geometry | Identify lines of symmetry in 2-D shapes presented in different orientations | |  |  |  |  |  |  | **Year 3 Geometry**   * Identify horizontal and vertical lines and pairs of perpendicular and parallel lines * Draw 2-D shapes * Make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them * Recognise angles as a property of shape or a description of a turn * Identify right angles, recognise that 2 right angles make a half-turn, 3 make three-quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle | |  |
| Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes | |  |  |  |  |  |  |
| Identify acute and obtuse angles and compare and order angles up to 2 right angles by size | |  |  |  |  |  |  |
| Position | Complete a simple symmetric figure with respect to a specific line of symmetry | |  |  |  |  |  |  | **Year 2 Position**   * 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) | |  |
| Describe positions on a 2-D grid as coordinates in the first quadrant | |  |  |  |  |  |  |
| 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 | Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | |  |  |  |  |  |  | **Year 3 Statistics**   * 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 | |  |
| Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | |  |  |  |  |  |  |

|  | | **Castle Academy - Maths Curriculum** | | | | | | | |  | |
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| **Year 5** | | | Aut | | Spr | | Sum | | Key Vertical Maths Links | | Horizontal/ Diagonal Links |
| 1 | 2 | 1 | 2 | 1 | 2 |
| Number | Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 | |  |  |  |  |  |  | **Year 4 Number**   * Count backwards through 0 to include negative numbers * Order and compare numbers beyond 1,000 * Find 1,000 more or less than a given number * Recognise the place value of each digit in a four-digit number (1,000s, 100s, 10s, and 1s) * recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 * Round any number to the nearest 10, 100 or 1,000 * Read Roman numerals to 100 (I to C) and know that over time, the numeral system changed to include the concept of 0 and place value * Recognise and use factor pairs and commutativity in mental calculations * Identify, represent and estimate numbers using different representations | |  |
| Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000 | |  |  |  |  |  |  |
| Read, write, order and compare numbers to at least 1,000,000 | |  |  |  |  |  |  |
| Read, write, order and compare numbers with up to 3 decimal places | |  |  |  |  |  |  |
| Read Roman numerals to 1,000 (M) and recognise years written in Roman numerals | |  |  |  |  |  |  |
| Determine the value of each digit in numbers up to 1,000,000 | |  |  |  |  |  |  |
| Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | |  |  |  |  |  |  |
| Multiply and divide whole numbers and those involving decimals by 10, 100 and 1,000 | |  |  |  |  |  |  |
| Round any number up to 1,000,000 to the nearest 10, 100, 1,000, 10,000 and 100,000 | |  |  |  |  |  |  |
| Round decimals with 2 decimal places to the nearest whole number and to 1 decimal place | |  |  |  |  |  |  |
| Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 numbers | |  |  |  |  |  |  |
| 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 | |  |  |  |  |  |  |
| Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³) | |  |  |  |  |  |  |
| Solve number problems and practical problems that involve all of the above | |  |  |  |  |  |  |
| Calculation | Add and subtract numbers mentally with increasingly large numbers | |  |  |  |  |  |  | **Year 4 Calculations**   * Add and subtract numbers with up to 4 digits using a variety of methods * 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 * Count in multiples of 6, 7, 9, 25 and 1,000 * Recall 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 3 numbers * Multiply two-digit and three-digit numbers by a one-digit number using a variety of methods | |  |
| Add and subtract whole numbers with more than 4 digits using a range of methods and a Concrete/Pictorial/Abstract approach | |  |  |  |  |  |  |
| 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 | |  |  |  |  |  |  |
| Multiply and divide numbers mentally, drawing upon known facts | |  |  |  |  |  |  |
| Multiply numbers up to 4 digits by a one- or two-digit number using a range of methods | |  |  |  |  |  |  |
| Divide numbers up to 4 digits by a one-digit number using a range of methods 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 | |  |  |  |  |  |  |
| Solve problems involving number up to 3 decimal places | |  |  |  |  |  |  |
| Fractions | 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, 2/5 + 4/5 = 6/5 = 1 & 1/5 ] | |  |  |  |  |  |  | **Year 4 Fractions and Decimals**   * Count up and down in hundredths * Compare numbers with the same number of decimal places up to 2 decimal places * Recognise and show, using diagrams, families of common equivalent fractions * recognise that hundredths arise when dividing an object by 100 and dividing tenths by 10 * Recognise and write decimal equivalents to 1/4 , 1/2 , ¾ * Add and subtract fractions with the same denominator * Round decimals with 1 decimal place to the nearest whole number | |  |
| Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | |  |  |  |  |  |  |
| Recognise the per cent symbol (%) and understand that per cent relates to ‘number of parts per 100’, and write percentages as a fraction with denominator 100, and as a decimal fraction | |  |  |  |  |  |  |
| Compare and order fractions whose denominators are all multiples of the same number | |  |  |  |  |  |  |
| Read and write decimal numbers as fractions [for example, 0.71 = 71/100] | |  |  |  |  |  |  |
| Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths | |  |  |  |  |  |  |
| Solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25 | |  |  |  |  |  |  |
| Fractions | Add and subtract fractions with the same denominator, and denominators that are multiples of the same number | |  |  |  |  |  |  | **Year 4 Fractions**   * 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 | |  |
| Multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | |  |  |  |  |  |  |
| Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates | |  |  |  |  |  |  |
| Measures | Compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes | |  |  |  |  |  |  | **Year 5 Measures**   * Estimate and compare different measures * Convert between different units of measure [for example, kilometre to metre; hour to minute] * Solve simple measure and money problems involving fractions and decimals to 2 decimal places * Measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres * Find the area of rectilinear shapes by counting squares | |  |
| Estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] | |  |  |  |  |  |  |
| Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] | |  |  |  |  |  |  |
| Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints | |  |  |  |  |  |  |
| Use all four operations to solve problems involving measure [length, mass, volume, money] using decimal notation, including scaling | |  |  |  |  |  |  |
| Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres | |  |  |  |  |  |  |
| Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes | |  |  |  |  |  |  |
| Estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] | |  |  |  |  |  |  |
| Estimate, compare and calculate different measures, including money in pounds and pence | |  |  |  |  |  |  |
| Time | Complete, read and interpret information in tables, including timetables | |  |  |  |  |  |  | **Year 4 Time**   * Read, write and convert time between analogue and digital 12-hour and 24-hour clocks * Solve problems involving converting from hours to minutes, minutes to seconds, years to months, weeks to days | |  |
| Solve problems involving converting between units of time | |  |  |  |  |  |  |
| Geometry | Distinguish between regular and irregular polygons based on reasoning about equal sides and angles | |  |  |  |  |  |  | **Year 4 Geometry**   * Identify lines of symmetry in 2-D shapes presented in different orientations * Compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes * Identify acute and obtuse angles and compare and order angles up to 2 right angles by size | |  |
| Identify 3-D shapes, including cubes and other cuboids, from 2-D representations | |  |  |  |  |  |  |
| 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 1 whole turn (total 360°), * angles at a point on a straight line and half a turn (total 180°) * other multiples of 90° | |  |  |  |  |  |  |
| Position | 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 | |  |  |  |  |  |  | **Year 4 Position**   * Complete a simple symmetric figure with respect to a specific line of symmetry * Describe positions on a 2-D grid as coordinates in the first quadrant * 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 a line graph | |  |  |  |  |  |  | **Year 4 Statistics**   * Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | |  |
| Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs (reinforced from Yr4) | |  |  |  |  |  |  |

|  | | **Castle Academy - Maths Curriculum** | | | | | | | |  | | |
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| **Year 6** | | | Aut | | Spr | | Sum | | Key Vertical Maths Links | | Horizontal/ Diagonal Links |
| 1 | 2 | 1 | 2 | 1 | 2 |
| Number | Use negative numbers in context, and calculate intervals across 0 | |  |  |  |  |  |  | **Year 5 Number**   * Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through 0 * Read, write, order and compare numbers to at least 1,000,000 * Read, write, order and compare numbers with up to 3 decimal places * Identify multiples and factors, including finding all factor pairs of a number, and common factors of 2 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 (²) and cubed (³) | |  |
| order and compare numbers up to 10,000,000 | |  |  |  |  |  |  |
| Read and write numbers up to 10,000,000 | |  |  |  |  |  |  |
| Determine the value of each digit in numbers up to 10,000,000 | |  |  |  |  |  |  |
| Identify the value of each digit in numbers given to 3 decimal places | |  |  |  |  |  |  |
| Round any whole number to a required degree of accuracy | |  |  |  |  |  |  |
| Identify common factors, common multiples and prime numbers | |  |  |  |  |  |  |
| Solve number and practical problems that involve all of the above | |  |  |  |  |  |  |
| Calculation | Perform mental calculations, including with mixed operations and large numbers | |  |  |  |  |  |  | **Year 5 Calculation**   * Add and subtract whole numbers with more than 4 digits using a range of methods and a Concrete/Pictorial/Abstract approach * Multiply numbers up to 4 digits by a one- or two-digit number using a range of methods * Divide numbers up to 4 digits by a one-digit number using a range of methods 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 * Solve problems involving number up to 3 decimal places sign * Use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy * Add and subtract numbers mentally with increasingly large numbers | |  |
| Use their knowledge of the order of operations to carry out calculations involving the 4 operations | |  |  |  |  |  |  |
| Use estimation 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 | |  |  |  |  |  |  |
| Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication | |  |  |  |  |  |  |
| Multiply one-digit numbers with up to 2 decimal places by whole numbers | |  |  |  |  |  |  |
| 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 | |  |  |  |  |  |  |
| 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 | |  |  |  |  |  |  |
| Use written division methods in cases where the has up to 2 decimal places | |  |  |  |  |  |  |
| Solve problems involving addition, subtraction, multiplication and division | |  |  |  |  |  |  |
| Fractions, Decimals, Percentages and Ratio | Compare and order fractions, including fractions >1 | |  |  |  |  |  |  | **Year 5 Fractions, Decimals and Percentages**   * Compare and order fractions whose denominators are all multiples of the same number * Read and write decimal numbers as fractions [for example, 0.71 = 71/100] * Solve problems which require knowing percentage and decimal equivalents of 1/2 , 1/4 , 1/5 , 2/5 , 4/5 and those fractions with a denominator of a multiple of 10 or 25 * 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 | |  |
| Use common factors to simplify fractions; use common multiples to express fractions in the same denomination | |  |  |  |  |  |  |
| Recall and use equivalences between simple fractions, decimals and percentages, including in different contexts | |  |  |  |  |  |  |
| Associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8] | |  |  |  |  |  |  |
| Add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions | |  |  |  |  |  |  |
| Multiply simple pairs of proper fractions, writing the answer in its simplest form [for example, 1/4 × 1/2 = 1/8] | |  |  |  |  |  |  |
| Divide proper fractions by whole numbers [for example, 1/3 ÷ 2 = 1/6 ] | |  |  |  |  |  |  |
| F D P R | Solve problems   * involving the calculation of percentages [for example, of measures and such as 15% of 360] and the use of percentages for comparison * involving unequal sharing and grouping using knowledge of fractions and multiples * involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts * involving similar shapes where the scale factor is known or can be found | |  |  |  |  |  |  | **Year 5 Fractions, Decimals and Percentages**   * Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates | |  |
| Measures | Estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³] | |  |  |  |  |  |  | **Year 5 Measures**   * Convert between different units of metric measure [for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre] * Understand and use approximate equivalences between metric units and common imperial units such as inches, pounds and pints * Measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres * Calculate and compare the area of rectangles (including squares), including using standard units, square centimetres (cm²) and square metres (m²), and estimate the area of irregular shapes * Estimate volume [for example, using 1 cm³ blocks to build cuboids (including cubes)] and capacity [for example, using water] | |  |
| 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 3 decimal places | |  |  |  |  |  |  |
| Convert between miles and kilometres | |  |  |  |  |  |  |
| Solve problems involving the calculation and conversion of units of measure, using decimal notation up to 3 decimal places where appropriate | |  |  |  |  |  |  |
| Recognise that shapes with the same areas can have different perimeters and vice versa | |  |  |  |  |  |  |
| Calculate the area of parallelograms and triangles | |  |  |  |  |  |  |
| Recognise when it is possible to use formulae for area and volume of shapes | |  |  |  |  |  |  |
| Calculate the volume of cubes and cuboids using standard units, including cubic centimetres (cm³) and cubic metres (m³), and extending to other units [for example, mm³ and km³] | |  |  |  |  |  |  |
| Geometry | Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius | |  |  |  |  |  |  | **Year 5 Geometry**   * Distinguish between regular and irregular polygons based on reasoning about equal sides and angles. * Identify 3-D shapes, including cubes and other cuboids, from 2-D representations. * 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 1 whole turn (total 360°), angles at a point on a straight line and half a turn (total 180°), other multiples of 90° | |  |
| Describe simple 3-D shapes | |  |  |  |  |  |  |
| Draw 2-D shapes using given dimensions and angles | |  |  |  |  |  |  |
| Recognise and build simple 3-D 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 | |  |  |  |  |  |  |
| Recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles | |  |  |  |  |  |  |
| Position | Describe positions on the full coordinate grid (all 4 quadrants) | |  |  |  |  |  |  | **Year 5 Position**   * 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 | |  |
| 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 | |  |  |  |  |  |  | **Year 5 Statistics**   * Interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | |  |
| Calculate and interpret the mean as an average | |  |  |  |  |  |  |
| Algebra | Express missing number problems algebraically | |  |  |  |  |  |  | **Year 5 Number**   * Count forwards or backwards in steps of powers of 10 for any given number up to 1,000,000. * Use the properties of rectangles to deduce related facts and find missing lengths and angles. | |  |
| Enumerate possibilities of combinations of 2 variables | |  |  |  |  |  |  |
| Find pairs of numbers that satisfy an equation with 2 unknowns | |  |  |  |  |  |  |
| Use simple formulae | |  |  |  |  |  |  |
| Generate and describe linear number sequences | |  |  |  |  |  |  |