Belswains Mathematics Progression Map

Section 1

EYFS
The focus is on number and shape, space and measures. Each of these topics is broken down in to key areas.
Each key area has objectives from Development Matters and Birth to 5 Matters.
Next to each key area is the term and block where these objectives are covered.

KS1 and KS2
The Curriculum is divided into 8 topic areas. Each of these topic areas is then broken down into key areas.
Next to each key area is the term and block where these objectives are covered.

The Ready to Progress Criteria is also included for each topic area. These can be used to identify the key learning for each topic and can be used by teacher to help assess pupils.

From the DfE Document
'This publication identifies the most important conceptual knowledge and understanding that pupils need as they progress from year 1 to year 6. These important concepts are referred to as ready-to-progress criteria and provide a coherent, linked framework to support pupils' mastery of the primary mathematics curriculum.'

'Please note that the publication does not address the whole of the primary curriculum, but only the areas that have been identified as a priority. It is still a statutory requirement that the whole of the curriculum is taught. However, by meeting the ready-to-progress criteria, pupils will be able to more easily access many of the elements of the curriculum that are not covered by this guidance.' (Mathematical Guidance, KS1 and 2, DfE June 2020)

Section 2
An overview of the units taught in each group over the year.

Section 3
Vocabulary progression for each year group.

Reception
Number

Development Matters- 3 and 4 year olds **Comparison (Aut 3, Aut 5, Spr 1 Sum 2)** • Link numerals and amounts: for example, showing the right number of objects to match the numeral, up to 5. • Experiment with their own symbols and marks as well as numerals. **Counting (Aut 3, Aut 5, Spr 3, Spr 5, Sum 1)** • Recite numbers past 5. • Say one number for each item in order: 1, 2, 3, 4, 5. **Cardinality (Aut 3, Aut 5, Spr 1)** • Develop fast recognition of up to 3 objects, without having to count them individually ('subitising'). • Know that the last number reached when counting a small set of objects tells yo how many there are in total ('cardinal principle'). • Show 'finger numbers' up to 5. **Composition (Aut 5, Spr 1)** • Solve real world mathematical problems with numbers up to 5.	**Development Matters- Reception** **Comparison (Aut 1, Aut 5, Spr 1, Spr 3, Spr 4, Spr 5, Sum 1, Sum 6)** • Count objects, actions and sounds. • Compare numbers. **Counting (Sum 1, Sum 6)** • Count beyond ten. **Cardinality (Aut 3, Aut 5, Spr 1, Spr 3, Spr 5, Sum 6)** • Subitise • Link the number symbol (numeral) with its cardinal number value. **Composition (Aut 3, Aut 5, Spr 1, Spr 3, Spr 5, Sum 2, Sum 4, Sum 6)** • Understand the 'one more than/one less than' relationship between consecutive numbers. • Explore the composition of numbers to 10. • Automatically recall number bonds for numbers 0-5 and some to 10.
Birth to 5 Matters- Range 5 **Comparison (Aut 2, Aut 5)** • Compares two small groups of up to five objects, saying when there are the same number of objects in each group, e.g. You've got two, I've got two. Same! **Counting (Aut 3, Aut 5, Spr 5, Sum 1)** • May enjoy counting verbally as far as they can go • Points or touches (tags) each item, saying one number for each item, using the table order of 1,2,3,4,5. • Uses some number names and number language within play, and may show fascination with large numbers • Begin to recognise numerals 0 to 10 **Cardinality (Aut 3, Aut 5, Spr 1, Sum 2)** • Subitises one, two and three objects (without counting) • Counts up to five items, recognising that the last number said represents the total counted so far (cardinal principle) • Links numerals with amounts up to 5 and maybe beyond • Explores using a range of their own marks and signs to which they ascribe mathematical meanings **Composition (Aut 3, Aut 5, Spr 1)** • Through play and exploration, beginning to learn that numbers are made up (composed) of smaller numbers • Beginning to use understanding of number to solve practical problems in play and meaningful activities • Beginning to recognise that each counting number is one more than the one before • Separates a group of three or four objects in different ways, beginning to recognise that the total is still the same	**Birth to 5 Matters- Range 6** **Comparison (Spr 1, Spr 3, Spr 5, Sum 1, Sum 4)** • Uses number names and symbols when comparing numbers, showing interest in large numbers • Estimates of numbers of things, showing understanding of relative size **Counting (Spr 5, Sum 1)** • Enjoys reciting numbers from 0 to 10 (and beyond) and back from 10 to 0 • Increasingly confident at putting numerals in order 0 to 10 (ordinality) **Cardinality (Aut 5, Spr 1, Spr 3, Spr 5, Sum 4)** • Engages in subitising numbers to four and maybe five • Counts out up to 10 objects from a larger group • Matches the numeral with a group of items to show how many there are (up to 10) **Composition (Aut 5, Spr 1, Spr 3, Spr 5, Sum 2, Sum 4, Sum 6)** • Shows awareness that numbers are made up (composed) of smaller numbers, exploring partitioning in different ways with a wide range of objects • Begins to conceptually subitise larger numbers by subitising smaller groups within the number, e.g. sees six raisins on a plate as three and three • In practical activities, adds one and subtracts one with numbers to 10 • Begins to explore and work out mathematical problems, using signs and strategies of their own choice, including (when appropriate) standard numerals, tallies and "+" or "-"

Shape, Space and Measure

Development Matters- 3 and 4 year olds

Spatial Awareness (Aut 2, Aut 4, Spr 3, Sum 5)

- Compare quantities using language: 'more than', 'fewer than',
- Understand position through words alone – for example, "The bag is under the table," – with no pointing.
- Describe a familiar route.
- Discuss routes and locations, using words like 'in front of' and 'behind'.

Shape (Aut 4, Aut 6, Spr 6)

- Talk about and explore 2D and 3D shapes (for example, circles, rectangles, triangles and cuboids) using informal and mathematical language: 'sides', 'corners', 'straight', 'flat', 'round'.
- Select shapes appropriately: flat surfaces for building, a triangular prisms for a roof, etc.
- Combine shapes to make new ones – an arch, a bigger triangle, etc.

Pattern (Aut 2, Spr 6)

- Talk about and identify the patterns around them. For example: stripes on clothes, designs on rugs and wallpaper. Use informal language like 'pointy', 'spotty', 'blobs', etc.
- Extend and create ABAB patterns – stick, leaf, stick, leaf.
- Notice and correct an error in a repeating pattern.

Measure (Aut 2, Spr 2, Spr 4, Sum 5)

- Make comparisons between objects relating to size, length, weight and capacity.
- Begin to describe a sequence of events, real or fictional, using words such as 'first', 'then…'

Development Matters- Reception

Spatial Awareness Spr 6, Sum 3)

- Select, rotate and manipulate shapes in order to develop spatial reasoning skills.

Shape (Aut 6, Spr 6, Sum 3)

- Compose and decompose shapes so that children recognise a shape can have other shapes within it, just as numbers can.

Pattern (Aut 2, Spr 6, Sum 5)

- Continue, copy and create repeating patterns.

Measure (Spr 2, Spr 4, Sum 6)

- Compare length, weight and capacity.

Birth to 5 Matters- Range 5

Spatial Awareness (Aut 4, Spr 6, Sum 3)

- Responds to and uses language of position and direction
- Predicts, moves and rotates objects to fit the space or create the shape they would like

Shape (Aut 6, Spr 6, Sum 3)

- Chooses items based on their shape which are appropriate for the child's purpose
- Responds to both informal language and common shape names
- Shows awareness of shape similarities and differences between objects
- Enjoys partitioning and combining shapes to make new shapes with 2D and 3D shapes
- Attempts to create arches and enclosures when building, using trial and improvement to select blocks

Pattern (Aut 2)

- Creates their own spatial patterns showing some organisation or regularity
- Explores and adds to simple linear patterns of two or three repeating items, e.g. stick, leaf (AB) or stick, leaf, stone (ABC)
- Joins in with simple patterns in sounds, objects, games and stories dance and movement, predicting what comes next

Birth to 5 Matters- Range 6

Spatial Awareness 9Spr 6, Sum 3, Sum 5)

- Uses spatial language, including following and giving directions, using relative terms and describing what they see from different viewpoints
- Investigates turning and flipping objects in order to make shapes fit and create models; predicting and visualising how they will look (spatial reasoning)
- May enjoy making simple maps of familiar and imaginative environments, with landmarks

Shape (Aut 4, Spr 6, Sum 3, Sum 5)

- Uses informal language and analogies, (e.g. heart-shaped and hand-shaped leaves), as well as mathematical terms to describe shapes .
- Enjoys composing and decomposing shapes, learning which shapes combine to make other shapes
- Uses own ideas to make models of increasing complexity, selecting blocks needed, solving problems and visualising what they will build.

Pattern (Aut 1, Spr 6, Sum 5)

- Spots patterns in the environment, beginning to identify the pattern "rule"
- Chooses familiar objects to create and recreate repeating patterns beyond AB patterns and begins to identify the unit of repeat

Measure (Aut 2, Aut 6, Spr 4) • In meaningful contexts, finds the longer or shorter, heavier or lighter and more/less full of two items • Recalls a sequence of events in everyday life and stories.	**Measure (Aut 2, Aut 6, Spr 4)** • Enjoys tackling problems involving prediction and discussion of comparisons of length, weight or capacity, paying attention to fairness and accuracy • Becomes familiar with measuring tools in everyday experiences and play • Is increasingly able to order and sequence events using everyday language related to time • Beginning to experience measuring time with timers and calendars

Year 1

<table>
<tr>
<td><u>Place Value</u>
Count (Aut 1, Spr 1/3, Sum 4)
• count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number
• Count numbers to 100 in numerals; count in multiples of twos, fives and tens
Represent (Aut 1, Spr 1/3, Sum 4)
• identify and represent numbers using objects and pictorial representations
• •read and write numbers to 100 in numerals
• •read and write numbers from 1 to 20 in numerals and words
Use and compare (Aut 1, Spr 1/3, Sum 4)
• given a number, identify one more and one less
Problems/Rounding
-</td>
<td><u>Addition and subtraction</u>
Calculations (Aut 2, Spr 2)
• add and subtract one-digit and two-digit numbers to 20, including zero
Problems (Aut 2, Spr 2)
• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □–9</td>
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<tr>
<td>Ready to progress criteria
1NPV-1 Count within 100, forwards and backwards, starting with any number.
1NPV-2 Reason about the location of numbers to 20 within the linear number system, including comparing using < > and =</td>
<td>Ready to progress criteria
1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.
1AS-2 Read, write and interpret equations containing addition (+), subtraction (−) and equals (=) symbols, and relate additive expressions and equations to real-life contexts.
1NF-1 Develop fluency in addition and subtraction facts within 10
1NF-2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.</td>
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<tr>
<td><u>Multiplication and division</u>
Recall/Use
-
Calculations
-
Problems (Sum 1)
• 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
Combined
-</td>
<td><u>Fractions, decimals and percentages</u>
Fractions: Recognise and Write (Sum 2)
• 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
Fractions: Compare
-
Fractions: Calculations
-
Fractions: Solve Problems
-
Decimals: Recognise, Write, Compare
-
Fractions, Decimals and Percentage
-</td>
</tr>
<tr>
<td>Ready to progress criteria Number Facts
1NF-1 Develop fluency in addition and subtraction facts within 10
1NF-2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.</td>
<td>Ready to progress criteria
-</td>
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<tr>
<td><u>Ratio, Proportion and Algebra</u>
Ratio and Proportion
-
Algebra
• solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = □–9
Note: although formal algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the ‘missing number’ objectives from Y1/2/3</td>
<td><u>Measurement</u>
Using Measures (Spr 4/5, Sum 6)
• compare, describe and solve practical problems for:
□lengths and heights
□mass/weight
□capacity and volume
□time
• measure and begin to record the following:
□lengths and heights
□mass/weight
□capacity and volume
□time (hours, minutes, seconds)
Money (Sum 5)
• recognise and know the value of different denominations of coins and notes
Time (Sum 6)
• 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
Perimeter, Area and Volume
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<td>Ready to progress criteria</td>
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<tr>
<td><u>Geometry</u>
2-D Shape (Aut 3)
• recognise and name common 2-D shapes [for example, rectangles (including squares), circles and triangles]
3-D Shape (Aut 3)
• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]
Angles and Lines
-
Position and Direction (Sum 3)
• describe position, direction and movement, including whole, half, quarter and three-quarter turns</td>
<td><u>Statistics</u>
Present and Interpret Data
-
Solve Statistical Problems
-</td>
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<tr>
<td>Ready to progress criteria
1G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.
1G-2 Compose 2D and 3D shapes from smaller shapes to match an example, including manipulating shapes to place them in particular orientations.</td>
<td>Ready to progress criteria</td>
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Year 2

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Place Value

Count (Aut 1)

- count in steps of 2, 3, and 5 from 0,and in tens from any number, forward and backward

Represent (Aut 1)

- read and write numbers to at least 100 in numerals and in words
- identify, represent and estimate numbers using different representations, including the number line

Use and compare (Aut 1)

- recognise the place value of each digit in a two-digit number (tens, ones)
- compare and order numbers from 0 up to 100; use <, > and = signs

Problems/Rounding (Aut 1)

- use place value and number facts to solve problems

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Addition and subtraction

Calculations (Aut 2)

- 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

Problems (Aut 2)

- 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

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Ready to progress criteria

2NPV-1 Recognise the place value of each digit in two-digit numbers, and compose and decompose two-digit numbers using standard and non-standard partitioning.
2NPV-2 Reason about the location of any two-digit number in the linear number system, including identifying the previous and next multiple of 10

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Ready to progress criteria

2AS-1 Add and subtract across 10
2AS-2 Recognise the subtraction structure of ‘difference’ and answer questions of the form, “How many more…?”.
2AS-3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.
2AS-4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.
2NF-1 Secure fluency in addition and subtraction facts within 10, through continued practice.

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Multiplication and division

Recall/Use (Spr 2)

- 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 two numbers can be done in any order (commutative) and division of one number by another cannot

Calculations (Spr 2)

- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs

Problems (Sum 1)

- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

Combined

-

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Fractions, decimals and percentages

Fractions Recognise and Write (Sum 1)

- recognise, find, name and write fractions ½, ¼, 2/4, and ¾ of a length, shape, set of objects or quantity

Fractions: Compare (Sum 1)

- Recognise the equivalence of 2/4 and ½

Fractions: Calculations (Sum 1)

- write simple fractions for example, ½ of 6 = 3

Fractions: Solve Problems

-

Decimals: Recognise, Write, Compare

-

Fractions, Decimals and Percentage

-

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Ready to progress criteria

2MD-1 Recognise repeated addition contexts, representing them with multiplication equations and calculating the product, within the 2, 5 and 10 multiplication tables.
2MD-2 Relate grouping problems where the number of groups is unknown to multiplication equations with a missing factor, and to division equations (quotitive division).

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Ready to progress criteria

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<td><u>Ratio, Proportion and Algebra</u>
Ratio and Proportion
-
Algebra
• recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems

Note: although formal algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the ‘missing number’ objectives from Y1/2/3</td>
<td><u>Measurement</u>
Using Measures (Spr 3, Spr 4)
• choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (℃); 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 =
Money (Spr 1)
• 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 (Sum 2)
• 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
Perimeter, Area and Volume
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<td>Ready to progress criteria</td>
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<td><u>Geometry</u>
2-D Shape (Aut 3)
• identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
• identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder]
• compare and sort common 2-D shapes and everyday objects
3-D Shape (Aut 3)
• recognise and name common 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]
• compare and sort common 3-D shapes and everyday objects
Angles and Lines
-
Position and Direction (Sum 4)
• order and arrange combinations of mathematical objects in patterns and sequences
• 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 anticlockwise)</td>
<td><u>Statistics</u>
Present and Interpret Data (Sum 3)
• interpret and construct simple pictograms, tally charts, block diagrams and simple tables
Solve Statistical Problems
• 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</td>
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<tr>
<td>Ready to progress criteria
2G-1 Recognise common 2D and 3D shapes presented in different orientations, and know that rectangles, triangles, cuboids and pyramids are not always similar to one another.</td>
<td>Ready to progress criteria</td>
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Year 3

Place Value **Count (Aut 1, Aut 3)** • count from 0 in multiples of 4, 8, 50 and 100; find 10 or 100 more or less than a given number **Represent (Aut 1)** • identify, represent and estimate numbers using different representations • read and write numbers up to 1000 in numerals and in words **Use and compare (Aut 1)** • recognise the place value of each digit in a three-digit number (hundreds, tens, ones) • compare and order numbers up to 1000 **Problems/Rounding (Aut 1)** • solve number problems and practical problems involving these ideas	**Addition and subtraction** **Calculations (Aut 2)** • 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 **Problems (Aut 2)** • solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction
Ready to progress criteria 3NPV-1 Know that 10 tens are equivalent to hundred, and that 100 is 10 times the size of 10; apply this to identify and work out how many 10s there are in other three-digit multiples of 10 3NPV-2 Recognise the place value of each digit in three-digit numbers, and compose and decompose three-digit numbers using standard and non-standard partitioning. 3NPV-3 Reason about the location of any three-digit number in the linear number system, including identifying the previous and next multiple of 100 and 10 3NPV-4 Divide 100 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 100 with 2, 4, 5 and 10 equal parts.	**Ready to progress criteria** 3AS-1 Calculate complements to 100 3AS-2 Add and subtract up to three-digit numbers using columnar methods. 3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction. 3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).

Multiplication and division **Recall/Use (Aut 3, Spr 1)** • recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables **Calculations (Aut 3, Spr 1)** • 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 progressing to formal written methods **Problems (Spr 1)** • 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 **Combined** -	**Fractions, decimals and percentages** **Fractions: Recognise and Write (Spr 3)** • 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, find and write fractions of a discrete set of objects: unit fractions and non-unit fractions with small denominators • recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators **Fractions: Compare (Spr 3)** • recognise and show, using diagrams, equivalent fractions with small denominators • compare and order unit fractions, and fractions with the same denominators **Fractions: Calculations (Sum 1)** • add and subtract fractions with the same denominator within one whole [for example, 5/7+1/7=6/7] **Fractions: Solve Problems (Spr 3, Sum 1)** • solve problems that involve all of the above **Decimals: Recognise, Write, Compare** - **Fractions, Decimals and Percentage** -
Ready to progress criteria 3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number. 3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10). 3MD-1 Apply known multiplication and in this block relate to this criterion division facts to solve contextual problems with different structures, including quotitive and partitive division.	**Ready to progress criteria** 3F-1 Interpret and write proper fractions to represent 1 or several parts of a whole that is divided into equal parts. 3F-2 Find unit fractions of quantities using known division facts (multiplication tables fluency). 3F-3 Reason about the location of any fraction within 1 in the linear number system. 3F-4 Add and subtract fractions with the same denominator, within 1

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<tr>
<td><u>Ratio, Proportion and Algebra</u>
Ratio and Proportion
-
Algebra
• solve problems, including missing number problems

Note: although formal algebraic notation is not introduced until Y6, algebraic thinking starts much earlier as exemplified by the ‘missing number’ objectives from Y1/2/3</td>
<td><u>Measurement</u>
Using Measures (Spr 2, Spr 4)
• measure, compare, add and subtract: lengths (m/cm/mm); mass (kg/g); volume/capacity (l/ml)
Money (Sum 2)
• add and subtract amounts of money to give change, using both £ and p in practical contexts
Time (Sum 3)
• 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]
Perimeter, Area and Volume (Spr 2)
• measure the perimeter of simple 2-D shapes</td>
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<td>Ready to progress criteria</td>
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<tr>
<td><u>Geometry</u>
2-D Shape (Sum 4)
• draw 2-D shapes
3-D Shape (Sum 4)
• make 3-D shapes using modelling materials; recognise 3-D shapes in different orientations and describe them
Angles and Lines (Sum 4)
• 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
Position and Direction
-</td>
<td><u>Statistics</u>
Present and Interpret Data (Sum 5)
• interpret and present data using bar charts, pictograms and tables
Solve Statistical Problems (Sum 5)
• 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</td>
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<tr>
<td>Ready to progress criteria
3G-1 Recognise right angles as a property of shape or a description of a turn, and identify right angles in 2D shapes presented in different orientations.
3G-2 Draw polygons by joining marked points, and identify parallel and perpendicular sides.</td>
<td>Ready to progress criteria</td>
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Year 4

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<u>Place Value</u>

Count (Aut 1, Aut 4)

- count in multiples of 6, 7, 9, 25 and 1000
- count backwards through zero to include negative numbers (Negative numbers not introduced until Y5)

Represent (Aut 1)

- 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 zero and place value

Use and compare (Aut 1)

- 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

Problems/Rounding (Aut 1)

- 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

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<u>Addition and subtraction</u>

Calculations (Aut 2)

- add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate

Problems (Aut 2)

- solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

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Ready to progress criteria

4NPV-1 Know that 10 hundreds are equivalent to 1 thousand, and that 1,000 is 10 times the size of 100; apply this to identify and work out how many 100s there are in other four-digit multiples of 100

4NPV-2 Recognise the place value of each digit in four-digit numbers, and compose and decompose four-digit numbers using standard and non-standard partitioning.

4NPV-3 Reason about the location of any four-digit number in the linear number system, including identifying the previous and next multiple of 1,000 and 100, and rounding to the nearest of each.

4NPV-4 Divide 1,000 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in multiples of 1,000 with 2, 4, 5 and 10 equal parts.

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Ready to progress criteria

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Multiplication and division **Recall/Use (Aut 4, Spr 1)** • 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 three numbers • recognise and use factor pairs and commutativity in mental calculations **Calculations (Spr 1)** • multiply two-digit and three-digit numbers by a one-digit number using formal written layout **Problems (Spr 1)** 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 **Combined** -	**Fractions, decimals and percentages** **Fractions: Recognise and Write (Spr 4, Sum 1)** count up and down in hundredths; recognise that hundredths arise when dividing an object by one hundred and dividing tenths by ten. **Fractions: Compare (Spr 3)** • recognise and show, using diagrams, families of common equivalent fractions **Fractions: Calculations (Spr 3)** • add and subtract fractions with the same denominator **Fractions: Solve Problems (Spr 3)** • 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 **Decimals: Recognise, Write, Compare (Spr 4, Sum 1)** • recognise and write decimal equivalents of any number of tenths or hundredths • recognise and write decimal equivalents to ¼, ½, ¾ • 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 **Fractions, Decimals and Percentage (Spr 3, Spr 4, Sum 1)** • solve simple measure and money problems involving fractions and decimals to two decimal places
Ready to progress criteria 4NF-1 Recall multiplication and division facts up to 12 × 12 and recognise products in multiplication tables as multiples of the corresponding number. 4NF-2 Solve division problems, with two-digit dividends and one-digit divisors, that involve remainders, and interpret remainders appropriately according to the context. 4NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 100). 4MD-1 Multiply and divide whole numbers by 10 and 100 (keeping to whole number quotients); understand this as equivalent to making a number 10 or 100 times the size. 4MD-2 Manipulate multiplication and division equations, and understand and apply the commutative property of multiplication. 4MD-3 Understand and apply the distributive property of multiplication.	**Ready to progress criteria** 4F-1 Reason about the location of mixed numbers in the linear number system. 4F-2 Convert mixed numbers to improper fractions and vice versa. 4F-3 Add and subtract improper and mixed fractions with the same denominator, including bridging whole numbers.

Ratio, Proportion and Algebra **Ratio and Proportion** - **Algebra** -	**Measurement** **Using Measures (Spr 2, Sum 3)** • Convert between different units of measure [for example, kilometre to metre; hour to minute] • estimate, compare and calculate different measures **Money (Sum 2)** • estimate, compare and calculate different measures, including money in pounds and pence **Time (Sum 3)** • 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 **Perimeter, Area and Volume (Aut 3, Spr 2)** • measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres • find the area of rectilinear shapes by counting squares
Ready to progress criteria	**Ready to progress criteria**
Geometry **2-D Shape (Sum 4)** • compare an 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 **3-D Shape** - **Angles and Lines (Sum 4)** • 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 **Position and Direction (Sum 6)** • 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** **Present and Interpret Data (Sum 5)** • interpret an present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs **Solve Statistical Problems (Sum 5)** • solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs
Ready to progress criteria 4G-1 Draw polygons, specified by coordinates in the first quadrant, and translate within the first quadrant. 4G-2 Identify regular polygons, including equilateral triangles and squares, as those in which the side-lengths are equal and the angles are equal. Find the perimeter of regular and irregular polygons. 4G-3 Identify line symmetry in 2D shapes presented in different orientations. Reflect shapes in a line of symmetry and complete a symmetric figure or pattern with respect to a specified line of symmetry.	**Ready to progress criteria**

Year 5

<table>
<tr>
<td><u>Place Value</u>
Count (Aut 1, Sum 4)
• count forwards or backwards in steps of powers of 10 for any given number up to 1 000 000
• count forwards and backwards with positive and negative whole numbers, including through zero
Represent (Aut 1)
• read, write, (order and compare) numbers to at least 1 000 000 and determine the value of each digit
• read Roman numerals to 1000 (M) and recognise years written in Roman numerals
Use and compare (Aut 1)
• (read, write) order and compare numbers to at least 1 000 000 and determine the value of each digit
Problems/Rounding (Aut 1)
• interpret negative numbers in context
• round any number up to 1 000 000 to the nearest 10, 100, 1000, 10 000 and 100 000
• solve number problems and practical problems that involve all of the above</td>
<td><u>Addition and subtraction</u>
Calculations (Aut 2)
• add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)
• add and subtract numbers mentally with increasingly large numbers
Problems (Aut 2)
• solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why
• solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</td>
</tr>
<tr>
<td>Ready to progress criteria
5NPV-1 Know that 10 tenths are equivalent to 1 one, and that 1 is 10 times the size of 0.1. Know that 100 hundredths are equivalent to 1 one, and that 1 is 100 times the size of 0.01. Know that 10 hundredths are equivalent to 1 tenth, and that 0.1 is 10 times the size of 0.01
5NPV-2 Recognise the place value of each digit in numbers with up to 2 decimal places, and compose and decompose numbers with up to 2 decimal places using standard and non-standard partitioning.
5NPV-3 Reason about the location of any number with up to 2 decimals places in the linear number system, including identifying the previous and next multiple of 1 and 0.1 and rounding to the nearest of each.
5NPV-4 Divide 1 into 2, 4, 5 and 10 equal parts, and read scales/number lines marked in units of 1 with 2, 4, 5 and 10 equal parts.
5NPV-5 Convert between units of measure, including using common decimals and fractions.</td>
<td>Ready to progress criteria</td>
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Multiplication and division

Recall/Use (Aut 3)

- identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers
- know and use the vocabulary of prime numbers, prime factors and composite (nonprime) 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)

Calculations (Aut 3, Spr 1)

- multiply numbers up to 4 digits by a one- or two-digit number using a formal written method, including long multiplication for two-digit numbers
- multiply and divide numbers mentally drawing upon known facts
- 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
- multiply and divide whole numbers and those involving decimals by 10, 100 and 1000

Problems (Aut 3, Spr 1)

- solve problems involving multiplication and division including using their knowledge of factors and multiples, squares and cubes
- solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

Combined

- solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign

Fractions, decimals and percentages

Fractions: Recognise and Write (Aut 4)

- 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, 2/5 +4/5=5/6= 1 1/5]

Fractions: Compare (Aut 4)

- compare and order fractions whose denominators are all multiples of the same number

Fractions: Calculations (Aut 4, Spr 2)

- 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

Fractions: Solve Problems

-

Decimals: Recognise, Write, Compare (Spr 3, Sum 4)

- read and write decimal numbers as fractions [for example, 0.71 = 71/100]
- 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
- read, write, order and compare numbers with up to three decimal places

Fractions, Decimals and Percentage (Spr 3)

- recognise the percent symbol (%) and understand that percent 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 ½, ¼, 1/5, 2/5, 4/5 and those fractions with a denominator of a multiple of 10 or 25

Ready to progress criteria

5NF-1 Secure fluency in multiplication table facts, and corresponding division facts, through continued practice.
5NF-2 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 1 tenth or 1 hundredth).
5MD-1 Multiply and divide numbers by 10 and 100; understand this as equivalent to making a number 10 or 100 times the size, or 1 tenth or 1 hundredth times the size.
5MD-2 Find factors and multiples of positive whole numbers, including common factors and common multiples, and express a given number as a product of 2 or 3 factors.
5MD-3 Multiply any whole number with up to 4 digits by any one-digit number using a formal written method.
5MD-4 Divide a number with up to 4 digits by a one-digit number using a formal written method, and interpret remainders appropriately for the context.

Ready to progress criteria

5F-1 Find non-unit fractions of quantities.
5F-2 Find equivalent fractions and understand that they have the same value and the same position in the linear number system.
5F-3 Recall decimal fraction equivalents for ¼, ½, 1/5, 1/10 and for multiples of these proper fractions.

<table>
<tr>
<td><u>Ratio, Proportion and Algebra</u>
Ratio and Proportion
-
Algebra
-</td>
<td><u>Measurement</u>
Using Measures (Spr 4, Sum 5, Sum 6)
• convert between different units of metric measure
• 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 [for example, length, mass, volume, money] using decimal notation, including scaling
Money (Sum 3)
• use all four operations to solve problems involving measure [for example, money]
Time (Sum 5)
• solve problems involving converting between units of time
Perimeter, Area and Volume (Spr 4, Sum 6)
• measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres
• calculate and compare the area of rectangles (including squares) and including using standard units, square centimetres (cm2) and square metres (m2) and estimate the area of irregular shapes
• estimate volume [for example, using blocks to build cuboids] and capacity [for example, using water]</td>
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<tr>
<td>Ready to progress criteria</td>
<td>Ready to progress criteria</td>
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<tr>
<td><u>Geometry</u>
2-D Shape (Sum 1)
• 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 angles
3-D Shape (Sum 1)
• identify 3-Dcshapes, including cubes and other cuboids, from 2-D representations
Angles and Lines (Sum 2)
• 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°
Position and Direction (Sum 2)
• 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</td>
<td><u>Statistics</u>
Present and Interpret Data (Spr 5)
• complete, read and interpret information in tables, including timetables
Solve Statistical Problems (Spr 5)
• solve comparison, sum and difference problems using information presented in a line graph</td>
</tr>
<tr>
<td>Ready to progress criteria
5G-1 Compare angles, estimate and measure angles in degrees (°) and draw angles of a given size.
5G-2 Compare areas and calculate the area of rectangles (including squares) using standard units.</td>
<td>Ready to progress criteria</td>
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Year 6

Place Value **Count** - **Represent (Aut 1)** • read, write, (order and compare) numbers up to 10 000 000 and determine the value of each digit **Use and compare (Aut 1)** • (read, write), order and compare numbers up to 10 000 000 and determine the value of each digit **Problems/Rounding (Aut 1)** • 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	**Addition and subtraction** **Calculations (Aut 2)** • perform mental calculations, including with mixed operations and large numbers • use their knowledge of the order of operations to carry out calculations involving the four operations **Problems (Aut 2)** • solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why
Ready to progress criteria 6NPV-1 Understand the relationship between Autumn 1 4 – Powers of 10 powers of 10 from 1 hundredth to 10 million, and use this to make a given number 10, 100, 1,000, 1 tenth, 1 hundredth or 1 thousandth times the size (multiply and divide by 10, 100 and 1,000). 6NPV-2 Recognise the place value of each digit in numbers up to 10 million, including decimal fractions, and compose and decompose numbers up to 10 million using standard and non-standard partitioning. 6NPV-3 Reason about the location of any number up to 10 million, including decimal fractions, in the linear number system, and round numbers, as appropriate, including in contexts. 6NPV-4 Divide powers of 10, from 1 hundredth to 10 million, into 2, 4, 5 and 10 equal parts, and read scales/number lines with labelled intervals divided into 2, 4, 5 and 10 equal parts.	**Ready to progress criteria** 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. 6AS/MD-3 Solve problems involving ratio See under Ratio and proportion relationships. 6AS/MD-4 Solve problems with 2 unknowns.

Multiplication and division **Recall/Use (Aut 2)** • identify common factors, common multiples and prime numbers • use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy **Calculations (Aut 2)** • multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • 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 • perform mental calculations, including with mixed operations and large numbers **Problems (Aut 2)** • solve problems involving addition, subtraction, multiplication and division **Combined (Aut 2)** • use their knowledge of the order of operations to carry out calculations involving the four operations	**Fractions, decimals and percentages** **Fractions: Recognise and Write** - **Fractions: Compare (Aut 3)** • use common factors to simplify fractions; use common multiples to express fractions in the same denomination • compare and order fractions, including fractions > 1 **Fractions: Calculations (Aut 4, Spr 2)** • 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 x ½= 1/8 • divide proper fractions by whole numbers [for example 1/3 divided by 2= 1/6] **Fractions: Solve Problems** - **Decimals: Recognise, Write, Compare (Spr 3)** • identify the value of each digit in numbers given to three decimal places **Fractions, Decimals and Percentage (Spr 3, Spr 4)** • associate a fraction with division and calculate decimal fraction equivalents [for example, 0.375] for a simple fraction [for example, 3/8] • recall and use equivalences between simple fractions, decimals and percentages, including in different contexts
Ready to progress criteria 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. 6AS/MD-3 Solve problems involving relationships. 6AS/MD-4 Solve problems with 2 unknowns.	**Ready to progress criteria** 6F-1 Recognise when fractions can be simplified, and use common factors to simplify fractions. 6F-2 Express fractions in a common denomination and use this to compare fractions that are similar in value. 6F-3 Compare fractions with different denominators, including fractions greater than 1, using reasoning, and choose between reasoning and common denomination as a comparison strategy.

Ratio, Proportion and Algebra **Ratio and Proportion (Spr 1)** • 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/use of percentages for comparison • 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 (Spr 2)** • 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** **Using Measures (Aut 5)** • solve problems involving the calculation and conversion of units of measure,using decimal notation up to 3 d.p. 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 3 d.p. • convert between miles andkilometres **Money** **-** **Time (Aut 5)** • use, read, write and convert between standard units, converting measurements of time from a smaller unit of measure to a larger unit, and vice versa **Perimeter, Area and Volume (Aut 5)** • 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 cubic centimetres (cm3) and cubic metres (m3), and extending to other units
Ready to progress criteria 6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number). 6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding. 6AS/MD-3 Solve problems involving ratio relationships. 6AS/MD-4 Solve problems with 2 unknowns.	**Ready to progress criteria**

Geometry **2-D Shape (Sum 1)** • draw 2-D shapes using given dimensions and angles • compare and classify geometric shapes based on their properties and sizes • illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius **3-D Shape (Sum 1)** • recognise, describe and build simple 3-D shapes, including making nets **Angles and Lines (Sum 1)** • 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 and Direction (Sum 2)** • describe positions on the full coordinate grid (all four quadrants) • draw and translate simple shapes on the coordinate planes and reflect them in the axes	**Statistics** **Present and Interpret Data (Spr 6)** • interpret and construct pie charts and line graphs and use these to solve problems **Solve Statistical Problems (Spr 6)** • calculate and interpret the mean as an average
Ready to progress criteria 6G-1 Draw, compose, and decompose shapes dimensions, angles and area, and solve related problems.	**Ready to progress criteria**

Whole School Overview

Year	Reception	1	2	3	4	5	6
Autumn	1. Match sort and compare	1. Place value (within 10)	1.Place Value	1.Place Value	1.Place Value	1.Place Value	1.Place Value
	2.Measure and pattern						2.Addition, subtraction, multiplication and division
	3. It's me 1, 2, 3	2.Addition and subtraction (within 10)	2.Addition and Subtraction	2.Adidiotn and subtraction	2.Adidiotn and subtraction	2.Adidiotn and subtraction	
	4. Circles & triangles					3. Multiplication and division A	3. Fractions A
	5. 1, 2 3, 4, 5			3. Multiplication and division A	3.Area		4. Fractions B
	6. Shapes with 4 sides	3. Shape	3. Shape		3. Multiplication and division A	4.. Fractions A	5. Converting units
Spring	1. Alive in 5	1. Place value (within 20)	1. Money	1. Multiplicati on and division B	1. Multiplication and division B	1. Multiplication and division B	1. Ratio
	2.Mass and capacity	2. Addition and subtraction (within 20)	2.Multiplication and division	2.Length and perimeter	2.Length and perimeter	2.Fractions B	2.Alegbra
	3. Growing 6, 7, 8	3. Place Value (within 50)		3.Fractions A	3. Fractions	3. Decimals and percentages	3.Decimals
	4. Length, height and time		3.Length and height			4.Perimeter and area	4.Fracions, decimals and percentage s
	5. Building 9, 10	4. Length and height		4.Mass and capacity			5.Area, perimeter and volume
	6.Explore 3D shape	5. Mass and volume	4.Mass, capacity and temperature		4.Decimals A	5. Statistics	5. Statistics
Summer	1. To 20 and beyond	1. multiplication and division	1. Fractions	1.Fractions B	1. Decimals B	1. Shape	1. Shape
	2. How many now?	2. Fractions	2. Time	2,Money	2. Money	2. Position and direction	2. Position and direction
	3. Manipulate, compose	3. Position and direction	3. Statistics	3.Time	3. Time	3. Decimals	Consolidation, themed projects and problem solving.
	4. Sharing and grouping	4. Place value (within 100)	4.Position and direction	4.Shape	Consolidation	4. Negative numbers	
	5. Visualise, build and map	5. Money	Consolidation	5. Statistics	4. Shape	5. Converting units	
	6. Make connections	6. Time		Consolidati on	5. Statistics	6.Volume	

Vocabulary Progression

Reception

Number and Place Value	Addition and subtraction	Multiplication and division	Fractions, decimal and percentages	Ratio and proportion	Algebra	Measure and length	Height, weight and capacity	Time	Money	Properties of shape	Position and direction	Statistics
count subitise order/ordinal compare forwards backwards numerals digit one more one less equal to more than less than/fewer	add plus altogether total take-away minus number bonds part whole digit	double half twice as many equal unequal share group odd even				measure wide/wider narrow/narrower compare long, ;longer, longest short. Shorter. Shorter length	height longer/shorter taller/shorter weight capacity heavy/light heavier than lighter than big. Bigger, biggest full/empty more than less than half/half full	time quicker slower earlier later before after first next today yesterday tomorrow morning afternoon evening day week hour minute		2-d rectangle square circle triangle characteristics 3-d cuboid cube cone sphere curved straight flat	over under between around through on into next to behind beneath order repeat patterns on top of	

Year 1

Number and Place Value	Addition and subtraction	Multiplication and division	Fractions, decimal and percentages	Ratio and proportion	Algebra	Measure and length	Height, weight and capacity	Time	Money	Properties of shape	Position and direction	Statistics
sort represent multiples partitioning ones tens	addition add subtraction subtract difference equals facts problems 2-digit number missing number inverse	Multiplication division array	whole half quarter equal parts			compare	mass volume	chronological order *days of the week* *months of the year* month year o'clock half past second	money coins notes pounds £ pence p	sides corners properties pyramid faces	position direction movement whole turn half turn quarter turn three- quarter turn	

Year 2

Number and Place Value	Addition and subtraction	Multiplication and division	Fractions, decimal and percentages	Ratio and proportion	Algebra	Measure and length	Height, weight and capacity	Time	Money	Properties of shape	Position and direction	Statistics
count in steps count in multiples place value estimate compare	sum 3-digit number commutative	multiplication tables repeated addition commutative	three quarters third equivalent fractions unit fractions non-unit fractions numerator denominator one whole			standard units estimate order record results centimetre cm metre m	kilogram kg gram g quarter full three quarters full litres 1 milliltres ml temperature Celsius	intervals of time quarter past/to duration	value change	pentagon hexagon lines of symmetry properties cylinder edges vertices vertex	clockwise anticlockwise straight line rotation arrange sequences	pictogram tally chart block diagram category sorting totaling comparing horizontal vertical

Year 3

Number and Place Value	Addition and subtraction	Multiplication and division	Fractions, decimal and percentages	Ratio and proportion	Algebra	Measure and length	Height, weight and capacity	Time	Money	Properties of shape	Position and direction	Statistics
ascending descending 10 or 100 more 10 or 100 less hundreds	column addition column subtraction exchange estimate	exchange derived facts integer scaling problems correspondence problems	tenths			millimeter mm perimeter		analogue clock roman numerals 12-hour clock 24-hour clock am/pm noon midnight leap year digital		right-angled triangle heptagon octagon polygon properties prism orientation angles obtuse acute turn right angle half turn ¾ turn perpendicular parallel horizontal vertical		table bar chart

Year 4

Number and Place Value	Addition and subtraction	Multiplication and division	Fractions, decimal and percentages	Ratio and proportion	Algebra	Measure and length	Height, weight and capacity	Time	Money	Properties of shape	Position and direction	Statistics
negative numbers roman numeral 1000 more 1000 less thousands round	4-digit numbers operation methods	factor pairs distributive laws reminders formal written layout	decimal equivalence hundredths convert proper fractions improper fractions decimal point			kilometer km rectilinear figure area		convert		isosceles equilateral scalene trapezium rhombus parallelogram kite geometric shapes quadrilaterals	co-ordinates first quadrant grid translation plot polygon axis	time graph discrete data continuous data line graph comparison problem sum problem difference problem calculate interpret

Year 5

Number and Place Value	Addition and subtraction	Multiplication and division	Fractions, decimal and percentages	Ratio and proportion	Algebra	Measure and length	Height, weight and capacity	Time	Money	Properties of shape	Position and direction	Statistics
ten thousands one hundred thousands powers of integer		multiples factors prime numbers square numbers cube numbers short division product dividend divisor quotient operations	fifth thousands mixed numbers percent % factors integers complements			decimal notation scaling metric units imperial units inches compound shape irregular shape square centimetres square metres	cubic centimeter pounds pints			regular polygon irregular polygon reflex angles degrees one whole turn angles on a straight line angles around a point vertically opposite missing angles	reflection	timetable two-way tables

Year 6

Number and Place Value	Addition and subtraction	Multiplication and division	Fractions, decimal and percentages	Ratio and proportion	Algebra	Measure and length	Height, weight and capacity	Time	Money	Properties of shape	Position and direction	Statistics
millions ten millions		multi- digit numbers long division		relative size missing values integer multiplication percentages scale factor unequal sharing unequal grouping	formulae linear number sequence algebraically equation unknowns combinations variables	conversion miles formulae parallelograms triangles feet	cubic metre cubic millimeter cubic kilometer gallons stones ounces			radius diameter circumference dimensions	four quadrants co-ordinate plane	pie chart mean