| Reception | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| Counting to 1,2 and 3 <br> Have a deep understanding of number to 10 , including the composition of each number. | Sort Objects - Identify and represent numbers using pictorial representations including the number line, and the use of : equal to, more than, less than (fewer), most, least | Numbers to 20 - count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number (Year 1) | Represent and partition numbers to 100 - recognise the place value of each digit in a two-digit number (tens, ones) (Year 2) | Represent and partition numbers to 1000 - Recognise the place value of each digit in a four-digit number (100s, 10s and 1s) | Roman numerals - read Roman numerals to 1000 (M) and recognise years written in Roman numerals | Numbers to 1000000 - read, write, order and compare numbers up to 10000000 and determine the value of each digit |
| Subitise (recognise quantities without counting) up to 5 . <br> Recognise the pattern of the counting system. | Count objects to 10 - Count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number | Count in 10s - count, read and write number to 100 in numerals; count in multiples of twos, fives and tens (Year 1) | Number line to 100 - compare and order numbers up to 1000 | Number line to 1000 - Recognise the place value of each digit in a four-digit number (100s, 10s and 1s) | Numbers to 10000 - read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Numbers to 10000000 - read, write, order and compare numbers up to 10000000 and determine the value of each digit |
|  | Represent Numbers to 10 - Count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number | Counts in 10 s and 1 s - recognise the place value of each digit in a two-digit number (tens, ones) | 100s - count from 0 in multiples of $4,8,50$ and 100 ; find 10 or 100 more or less than a given number | Multiples of 1000 - Count in multiples of $6,7,9.25$ and 1000 | Numbers to 100000 - read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Partition numbers to 10000000 read, write, order and compare numbers up to 10000000 and determine the value of each digit |
|  | Count objects from a larger group - Count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number | Recognise 10s and 1s - recognise the place value of each digit in a two-digit number (tens, ones) | Represent numbers to 1000 identify, represent and estimate numbers using different representations | 4-digit numbers - identify, represent and estimate numbers using different representations | Numbers to 1000000 - read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Powers of 10 - read, write, order and compare numbers up to 10000000 and determine the value of each digit |
| Counting to 4 <br> Have a deep understanding of number to 10 , including the composition of each number. | Count on from any numberCount to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number | Build a number from 10s and 1s recognise the place value of each digit in a two-digit number (tens, ones) | Partition numbers to 1000 recognise the place value of each digit in a three-digit number (100s, 10s, 1s) | Partition 4-digit numbers Recognise the place value of each digit in a four-digit number (100s, 10s and 1s) | Read and write 5 - and 6-digit numbers - read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Number line to 10000000 - read, write, order and compare numbers up to 10000000 and determine the value of each digit |
| Subitise (recognise quantities without counting) up to 5 . <br> Recognise the pattern of the counting system. | One more - given a number, identify one more and one less | Use a place value grid - recognise the place value of each digit in a two-digit number (tens, ones) | Partition numbers to 1000 flexibly - recognise the place value of each digit in a three-digit number (100s, 10s, 1s) | Partition 4-digit numbers flexibly Recognise the place value of each digit in a four-digit number (100s, 10s and 1s) | Powers of 10 - count forwards or backwards in steps of powers of 10 for any given number up to 1000000 | Compare and order any number - <br> read, write, order and compare <br> numbers up to 10000000 and <br> determine the value of each digit |
|  | Count backwards from 10 to 0 Count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number | Partition numbers to 100 recognise the place value of each digit in a two-digit number (tens, ones) | 100s, 10s, 1s - recognise the place value of each digit in a three-digit number (100s, 10s, 1s) | 1, 10, 100, 1000 more or less find 1000 more or less than a given number | 10/100/1000/10000/100000 more or less - read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Round any number - round any whole number to a required degree of accuracy |
|  | One less - given a number, identify one more and one less | Partition numbers flexibly within 100 - recognise the place value of each digit in a two-digit number (tens, ones) | Use a number line to 1000 identify, represent and estimate numbers using different representations | 1000s, 100s, 10s and 1s Recognise the place value of each digit in a four-digit number (100s, 10s and 1s) | Partition numbers to 1000000 read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Negative numbers - use negative numbers in context, and calculate intervals across zero |
| Counting to 5 <br> Have a deep understanding of number to 10 , including the composition of each number. | Compare groups - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Write number to 100 in expanded form - recognise the place value of each digit in a two-digit number (tens, ones) | Estimate on a number line to 1000 - identify, represent and estimate numbers using different representations | Number line to 10000 - identify, represent and estimate numbers using different representations | Number line to 1000000 - read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Add integers - solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |
| Subitise (recognise quantities without counting) up to 5 . <br> Recognise the pattern of the counting system. | Fewer or more? - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | 10s on a number line to 100 identify, represent and estimate numbers using different representations, including the number line | Find 1,10 and 1000 more or less - count from 0 in multiples of 4 , 8,50 and 100 ; find 10 or 100 more or less than a given number | Between two multiples Recognise the place value of each digit in a four-digit number (100s, 10s and 1s) | Compare and order numbers to 10000 - read, write, order and compare numbers to at least 1000000 and determine the value of each digit | Subtract integers - solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why |
|  | $\begin{array}{\|l} \hline<,>\text { or }=\text { - identify and represent } \\ \text { numbers using objects and } \\ \text { pictorial representations including } \\ \text { the number, and use the language } \\ \hline \end{array}$ | 10s and 1s on a number line to 100 - recognise the place value of each digit in a two-digit number (tens, ones) | Compare numbers to 1000 compare and order number ups to 1000 | Estimate on a number line to 10000 - order and compare numbers beyond 1000 | Compare and order numbers to 1000000 - read, write, order and compare numbers to at least | Problem solving (addition and subtraction) - solve addition and subtraction multi-step problems in contexts, deciding which |



|  |  | and derive and use related facts up to 100 | methods of columnar addition and subtraction | written methods of columnar addition and subtraction where appropriate | more than 4 digits, including using formal written methods (columnar addition and subtraction) |  |
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| 3D shapes <br> There is no specific ELG related to this unit. This unit supports the Development Matters statement Select, rotate and manipulate shapes in order to develop spatial reasoning skills | Number bonds to 10 - represent and use number bonds and related subtraction facts within 20 | Complements to 100 (tens) recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100 | Subtract 1s across 10 - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Subtract two 4 digit numbers add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | Round to check answers - use rounding to check answers to calculations and determine, in the context of a problem, levels of accuracy | Divide a 3 -digit number by a 2 digit number (long division) 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 |
|  | Add together- represent and use number bonds and related subtraction facts within 20 | Add and subtract 1s - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a twodigit number and ones | Subtract 10s across 100 - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Subtract two 4-digit numbers (one exchange) - add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | Inverse operations (addition and subtraction) - estimate and use inverse operations to check answers to a calculation | Divide a 4-digit number by a 2digit number (long division) divide numbers up to 4 digits by a tw0-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context |
|  | Add more - represent and use number bonds and related subtraction facts within 20 | Add by making 10 - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two two-digit numbers | Make connections - solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction | Subtract two 4 digit numbers (more than one exchange) - add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | Multi-step addition and subtraction problems - solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why | Long division with remainders divide numbers up to 4 digits by a tw0-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context |
|  | Addition problems - solve onestep problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems | Add using a number line - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones | Add two numbers - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Exchange across two columns add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate | Multi-step addition and subtraction problems (2) - solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why | Order of operations - use their knowledge of the order of operations to carry out calculations involving the four operations |
| 2D Shapes <br> There is no specific ELG related to this unit. This unit supports the Development Matters statement Select, rotate and manipulate shapes in order to develop spatial reasoning skills | Find the missing number represent and use number bonds and related subtraction facts within 20 | Add three 1-digit numbers - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: adding three one-digit | Subtract two numbers - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Efficient methods - estimate and use inverse operations to check answers to a calculation | Solve missing number problems solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why | Brackets - use their knowledge of the order of operations to carry out calculations involving the four operations |
|  | How many are left? - represent and use number bonds and related subtraction facts within 20 | Add to the next 10-add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a twodigit number and ones | Add two numbers (across 10) add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Equivalent difference - estimate and use inverse operations to check answers to a calculation | Solve comparison problems solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why | Mental calculations - perform mental calculations, including with mixed operations and large numbers |
|  | How many are left? (2) represent and use number bonds and related subtraction facts within 20 | Add across a ten - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a twodigit number and ones | Add two numbers (across 100) add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Estimate answers - estimate and use inverse operations to check answers to a calculation | Multiples - identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers | Mental calculations (2) - Mental calculations - perform mental calculations, including with mixed operations and large numbers |
|  | Break apart - represent and use number bonds and related subtraction facts within 20 | Subtract across 10- add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a twodigit number and ones | Subtract two numbers (across 10) - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Check strategies - estimate and use inverse operations to check answers to a calculation | Common multiples - identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers | Reason from known facts - use their knowledge of the order of operations to carry out calculations involving the four operations |


| One more <br> Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity | Break apart (2) - represent and use number bonds and related subtraction facts within 20 | Subtract from a 10 - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two twodigit numbers | Subtract two numbers (across 100) - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Problem solving (one step) solve addition and subtraction two-step problems in contexts, deciding which operation to use and why | Factors - identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers | Equivalent fractions and simplifying - use common factors to simplify fractions; use common multiples to express fractions in the same denomination |
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|  | Fact families - represent and use number bonds and related subtraction facts within 20 | Subtract a 1 -digit number from 2-digit number across 10 - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a two-digit number and ones | Add a 3-digit and a 2 -digit numbers - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Problem solving (comparison) solve addition and subtraction two-step problems in contexts, deciding which operation to use and why | Common factors - identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers | Equivalent fractions on a number line - compare and order fractions, including fraction > 1 |
|  | Subtraction on a number line solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems | 10 more, 10 less - count in steps of 2,3 and 5 from 0 , and in tens from any number, forward and backward | Subtract a 2-digit number from a 3-digit number - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Problem solving (two steps) solve addition and subtraction two-step problems in contexts, deciding which operation to use and why | Prime numbers - know and use the vocabulary of prime numbers, prime factors and composite (non-prime) numbers | Add and subtract simple fractions - add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
|  | Add or subtract 1 or 2 - add and subtract one-digit and two-digit numbers to 20 , including zero | Add and subtract 10 s - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: a twodigit number and tens | Complements to 100 - add and subtract numbers with up to three digits, using the formal written methods of columnar addition and subtraction | Problem solving (multi-step) solve addition and subtraction two-step problems in contexts, deciding which operation to use and why | Square numbers - recognise and use square numbers and cube numbers, and the notation for squared and cubed | Add and subtract any two fractions - add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
| One less <br> Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity | Solve word problems (addition and subtraction) - solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems | Add two 2-digit numbers, add 10s and add 1 s - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers | Estimate answers - estimate the answer to a calculation and use inverse operations to check answers | What is area? - find the area of rectilinear shapes by counting squares | Cube numbers - recognise and use square numbers and cube numbers, and the notation for squared and cubed | Add mixed numbers - add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
|  | Recognise and name 3D shapes recognise and name common 2D and 3D shapes, including: 3D shapes (for example, cuboids (including cubes,) pyramids and spheres.) | Subtract a 2-digit number from a 2-digit number (not across 10) add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers | Inverse operations - estimate the answer to a calculation and use inverse operations to check answers | Measure area using squares - find the area of rectilinear shapes by counting squares | Multiply by 10, 100 and 1000 multiply and divide whole numbers and those involving decimals by $10,100,1000$ | Subtract mixed numbers - add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
|  | Sort 3D shapes - recognise and name common 2D and 3D shapes, including: 3D shapes (for example, cuboids (including cubes,) pyramids and spheres.) | Subtract a 2-digit number from a 2-digit number (across 10) - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers | Problem solving - solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | Counting squares - find the area of rectilinear shapes by counting squares | Divide by 10, 100, 1000 - multiply and divide whole numbers and those involving decimals by 10 , 100, 1000 | Multi-step problems - add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
|  | Recognise and name 2D shapes recognise and name common 2D and 3D shapes, including: 2D shapes (for example, rectangles (including squares,) circles and triangles.) | How many more? How many fewer? - add and subtract numbers using concrete objects, pictorial representations, and mentally, including: two two-digit numbers | Problem solving (2) - solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction | Make shapes - find the area of rectilinear shapes by counting squares | Multiples of 10, 100, 1000multiply and divide whole numbers and those involving decimals by $10,100,1000$ | Problem solving (adding and subtracting fractions) - add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
| Introducing the part-whole model Have a deep understanding of number to 10 , including the composition of each number. | Sort 2D shapes - recognise and name common 2D and 3D shapes, including: 2 D shapes (for example, rectangles (including squares,) circles and triangles.) | Subtraction (find the difference) solve problems with addition and subtraction: using concrete objects and pictorial representations, including those | Multiplication (equal groups) write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one- | Compare area - estimate, compare and calculate different measures, including money in pounds and pence | Equivalent fractions - identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths | Multiply fractions by integers multiply proper fractions and mixed numbers by whole numbers, supported by material and diagrams |


| Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 and come number bonds to 10 , including double facts |  | involving numbers, quantities and measures | digit numbers, using mental and progressing to formal written methods |  |  |  |
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|  | Make patterns with shapes recognise and name common 2D and 3D shapes, including: 3D shapes (for example, cuboids (including cubes,) pyramids and spheres.) | Compare number sentences solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures | Use arrays - 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 | Multiples of 3 - recall multiplication and division facts for multiplication tables up to 12 x 12 | Equivalent fractions (unit and nonunit) - identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths | Multiply fractions by fractions multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, $1 / 4 \mathrm{x}$ $1 / 2=1 / 8$ ) |
|  | Count to 20 - count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number (to 20) | Missing number problems - solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures | Multiples of 2 - 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 | Multiply and divide by 6 - recall multiplication and division facts for multiplication tables up to 12 x 12 | Equivalent fractions (families of equivalent fractions) - identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths | Multiply fractions by fractions (2) - multiply simple pairs of proper fractions, writing the answer in its simplest form (for example, $1 / 4 \mathrm{x}$ $1 / 2=1 / 8$ ) |
|  | Understand 10 - count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number (to 20) | Mixed addition and subtraction solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures | Multiples of 5 and 10 - 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 | 6 times table and division facts recall multiplication and division facts for multiplication tables up to $12 \times 12$ | Improper fractions to mixed numbers - recognise mixed numbers and improper fractions and concert from one from to the other and write mathematical statements > 1 as a mixed number (for example,, $2 / 5+4 / 5=$ $6 / 5=11 / 5$ ) | Divide a fraction by an integer divide proper fractions by whole numbers (for example, $1 / 3 \div 2=$ 1/6) |
| Spatial awareness <br> There is no specific ELG related to this unit. This unit supports the Development Matters statement Select, rotate and manipulate shapes in order to develop spatial reasoning skills | 11, 12 and 13 - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Two-step problems - solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures | Share and group - 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 | Multiply and divide by 9 - recall multiplication and division facts for multiplication tables up to 12 x 12 | Mixed numbers to improper fractions - recognise mixed numbers and improper fractions and concert from one from to the other and write mathematical statements > 1 as a mixed number (for example,, $2 / 5+4 / 5=$ $6 / 5=11 / 5$ ) | Divide a fraction by an integer (2) - divide proper fractions by whole numbers (for example, $1 / 3 \div 2=$ 1/6) |
|  | 14, 15 and 16 - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Recognise 2D and 3D shapes compare and sort common 2D and 3D shapes and everyday objects | Multiply by 3 - recall and use multiplication and division facts for the 3,4 and 8 multiplication tables | 9 times table and division facts recall multiplication and division facts for multiplication tables up to $12 \times 12$ | Compare fractions less than 1 compare and order fractions whose denominators are all multiples of the same number | Divide a fraction by an integer (3) - divide proper fractions by whole numbers (for example, $1 / 3 \div 2=$ 1/6) |
|  | 17, 18 and 19 - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Count sides on 2D shapes identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line | Divide by 3 - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | The 3, 6 and 9 times table - recall multiplication and division facts for multiplication tables up to 12 x 12 | Order fractions less than 1 compare and order fractions whose denominators are all multiples of the same number | Mixed questions with fractions add and subtract fractions with different denominators and mixed numbers, using the concept of equivalent fractions |
|  | Understand 20 - identify and represent numbers using objects and pictorial representations including the number, and use the | Count vertices on 2D shapes identify and describe the properties of 2D shapes, including | The 3 times table - recall and use multiplication and division facts for the 3,4 and 8 multiplication tables | Multiply and divide by 7 - recall multiplication and division facts for multiplication tables up to 12 x 12 | Compare and order fractions greater than 1 - Compare and order fraction whose | Fraction of an amount - use written division method in cases where the answer has up to two decimal places |


|  | language of : equal to, more than, less than (fewer), most, least | the number of sides and line symmetry in a vertical line |  |  | denominators are all multiples of the same number |  |
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| Counting to 6, 7 and 8 <br> Have a deep understanding of number to 10 , including the composition of each number. <br> Subitise (recognise quantities without counting) up to 5 . <br> Verbally count, recognising the pattern of the counting system | One more and one less - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Draw 2D shapes - identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line | Multiply by 4 - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | 7 times table and division facts recall multiplication and division facts for multiplication tables up to $12 \times 12$ | Add and subtract fractions - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Fraction of an amount (find the whole) - use written division method in cases where the answer has up to two decimal places |
|  | The number line to 20 - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Lines of symmetry on shapes identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line | Divide by 4 - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | 11 and 12 times table and division facts - recall multiplication and division facts for multiplication tables up to $12 \times 12$ | Add fractions within 1 - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Place value to 3 decimal places identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10,100 and 1000 giving answers up to three decimal places |
|  | Label number lines - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Sort 2D shapes - compare and sort common 2 D and 3 D shapes and everyday objects | The 4 times table - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | Multiply by 1 and 0 - 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 | Add fractions with total greater than 1 - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Round decimals - identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places |
|  | Estimate on a number line identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Makes patterns with 2D shapes order and arrange combinations of mathematical objects in patterns and sequences | Multiply by 8 - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | Divide by 1 and 0 - 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 | Add to a mixed number - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Add and subtract decimals - solve problems which require answers to be rounded to specified degrees of accuracy |
| Counting to 9 and 10 <br> Have a deep understanding of number to 10 , including the composition of each number. <br> Subitise (recognise quantities without counting) up to 5 . <br> Verbally count, recognising the pattern of the counting system | Compare numbers to 20 - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Count faces on 3D shapes identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line | Divide by 8 - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | Multiply three numbers - 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 | Add two mixed numbers - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Multiply by 10,100 and 1000 identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10,100 and 1000 giving answers up to three decimal places |
|  | Order numbers to 20 - count to and across 100 , forwards and backwards, beginning with 0 or 1 , or from any given number (to 20) | Count edges on 3D shapes identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line | The 8 times table - recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables | Multiply and divide by 100 - recall multiplication and division facts for multiplication tables up to 12 x 12 | Subtract fractions within 1 - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Divide by 10, 100, 1000 - identify the value of each digit in numbers given to three decimal places and multiply and divide numbers by 10, 100 and 1000 giving answers up to three decimal places |
|  | Add by counting on within 20 - add and subtract one-digit and two-digit numbers to 20, including zero | Counts vertices on 3D shapes identify and describe the properties of 2D shapes, including the number of sides and line symmetry in a vertical line | Problem solving (multiplication and division) - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which $n$ objects are connected to m objects | Related facts (multiplication) recall multiplication and division facts for multiplication tables up to $12 \times 12$ | Subtract from a mixed number add and subtract fractions with the same denominator and denominators that are multiples of the same number | Multiply decimals by integers multiply one-digit numbers with up to two decimal places by whole numbers |
|  | Add ones using number bonds represent and use number bonds and related facts within 20 (within 10) | Sort 3D shapes - compare and sort common 2 D and 3 D shapes and everyday objects | Problem solving (multiplication and division (2)) - solve problems, including missing number problems, involving | Related facts (division) - recall multiplication and division facts for multiplication tables up to 12 x 12 | Subtract from a mixed number (breaking the whole) - add and subtract fractions with the same denominator and denominators | Divide decimals by integers - use written division method in cases where the answer has up to two decimal places |


|  |  |  | multiplication and division, including positive integer scaling problems and correspondences problems in which n objects are connected to m objects |  | that are multiples of the same number |  |
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| Comparing groups up to 10 <br> Have a deep understanding of number to 10 , including the composition of each number. <br> Subitise (recognise quantities without counting) up to 5 . | Find and make number bonds to 20 - represent and use number bonds and related facts within 20 (within 10) | Make patterns with 3D shapes order and arrange combinations of mathematical objects in patterns and sequences | Understand divisibility - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which $n$ objects are connected to m objects | Multiply and add - 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 a n objects are connected to m objects | Subtract two mixed numbers add and subtract fractions with the same denominator and denominators that are multiples of the same number | Fractions to decimals - associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375,) for a simple fraction, (for example, 3/8) |
| Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity | Doubles - represent and use number bonds and related facts within 20 (within 10) | Count money (pence) - recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value | Understand divisibility (2) - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which $n$ objects are connected to m objects | Informal written methods multiply two-digit and three-digit numbers by a one-digit number using formal written layout | Solve fractions problems - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Fraction as division - associate a fraction with division and calculate decimal fraction equivalents (for example, 0.375, ) for a simple fraction, (for example, 3/8) |
|  | Near doubles - represent and use number bonds and related facts within 20 (within 10) | Count money (pounds, notes and coins) - recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value | Multiples of 10 - 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 | Multiply 2-digits by 1 -digt multiply two-digit and three-digit numbers by a one-digit number using formal written layout | Solve multi-step fraction problems - add and subtract fractions with the same denominator and denominators that are multiples of the same number | Understand percentages - recall and use equivalences between simple fractions, decimals, percentages, including in different contexts |
|  | Subtract ones using number bonds - add and subtract onedigit and two-digit numbers to 20 , including zero | Count money (pounds and pence) - recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value | Related calculations - 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 | Multiply 3-digts by 1 -digit multiply two-digit and three-digit numbers by a one-digit number using formal written layout | Multiply up to 4-digits by 1-digit 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 | Fractions to percentages - recall and use equivalences between simple fractions, decimals, percentages, including in different contexts |
| Combining 2 groups to find the whole <br> Have a deep understanding of number to 10 , including the composition of each number. <br> Subitise (recognise quantities without counting) up to 5 . | Subtraction (counting back) solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems | Choose notes and coins recognise and use symbols for pounds ( $£$ ) and pence ( p ); combine amounts to make a particular value | Reasoning about multiplication solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which n objects are connected to m objects | Solve multiplication problems 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 a n objects are connected to m objects | Multiply 2-digts (area model) 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 | Equivalent fractions, decimals and percentages - recall and use equivalences between simple fractions, decimals, percentages, including in different contexts |
| Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10 , including double facts | Subtraction (finding the difference) - solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems | Make the same amount - find different combinations of coins that equal the same amount of money | Multiply 2-digits by 1-digit (no exchange) - write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times one-digit | Basic division - recognise and use factor pairs and commutativity in mental calculations | Multiply 2-digits by 2-digits 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 | Order fractions, decimals and percentages - compare and order fractions, including fractions > 1 |


| Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity |  |  | numbers, using mental and progressing to formal written methods |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Related facts - represent and use number bonds and related facts within 20 (within 10) | Compare amounts of money solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | Multiply 2-digts by 1-digit (exchange) - 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 | Division and remainders - multiply two-digit and three-digit numbers by a one-digit number using formal written layout | Multiply 3-digits by 2-digtis 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 | Simple percentage of an amount solve problems involving the calculation of percentages (for example, of measures, and such as $15 \%$ of 360 ) and the use of percentages for comparison |
|  | Missing number problems - solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems | Make $£ 1$ - recognise and use symbols for pounds ( $£$ ) and pence (p); combine amounts to make a particular value | Expanded written method - write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit numbers times onedigit numbers, using mental and progressing to formal written methods | Divide 2-digt numbers - use place value, known and derived facts to multiply and divide mentally, including: multiplying by 0 and 1 ; dividing by 1 ; multiplying together three numbers | Multiply 4-digits by 2-digits 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 | Percentage of an amount (1\%) solve problems involving the calculation of percentages (for example, of measures, and such as $15 \%$ of 360 ) and the use of percentages for comparison - |
| Length, height and distance <br> Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity | Solve word and picture problems (addition and subtraction) - solve one-step problems that involve addition and subtraction using concrete objects and pictorial representations, and missing number problems | Find change - solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | Link multiplication and division solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which $n$ objects are connected to m objects | Divide 3-digit numbers - 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 | Divide 4-digits by 1 -digit - divide 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | Percentages of an amount - solve problems involving the calculation of percentages (for example, of measures, and such as $15 \%$ of 360) and the use of percentages for comparison |
|  | Count to 50 - count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number | Two-step problems - solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change | Divide 2-digts by 1-digit (no exchange) - 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 | Correspondence problems recognise and use factor pairs and commutativity in mental calculations | Divide 4-digtis by 1-digit (2) divide 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | Percentages (missing values) solve problems involving the calculation of percentages (for example, of measures, and such as $15 \%$ of 360 ) and the use of percentages for comparison |
|  | Numbers to 50 - count to and across 100, forwards and backwards, beginning with 0 or 1 , or from any given number (to 20) | Recognise equal groups - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | Divide 2-digits by 1-digit (flexible partitioning) - 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 | Efficient multiplication - 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 a n objects are connected to m objects | Divide with remainders - divide 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | Metric measures - 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 three decimal places |
|  | 20,30,40 and 50 - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Make equal groups - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and | Divide 2-digits by 1-digit with remainders - write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for two-digit | Measure in km and m - convert between different units of measure (for example, kilometre to metre; hour to minute) | Efficient division - divide 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | Convert metric measurements use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller unit of measure to |

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|  |  | division facts, including problems in contexts | numbers times one-digit numbers, using mental and progressing to formal written methods |  |  | a larger unit, and vice versa, using decimal notation to up to three decimal places |
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| Weight <br> Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity | Count by making groups of 10s identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Add equal groups - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | How many ways? - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which n objects are connected to m objects | Perimeter on a grid - measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | Solve problems with multiplication and division - divide 4 digits by a one-digit number using the formal written method of short division and interpret remainders appropriately for the context | Calculate with metric measurements - solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places where appropriate |
|  | Groups of 10s and 1s - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | The x symbol - calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication, division and equal signs | Problem solving (mixed problems) - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which n objects are connected to m objects | Perimeter of a rectangle measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | Multiply unit fractions by an integer - multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Miles and kilometres - convert between miles and kilometres |
|  | Partition into 10 s and 1s identify and represent numbers using objects and pictorial representations including the number, and use the language of: equal to, more than, less than (fewer), most, least | Multiplication sentences - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | Problem solving (mixed problems (2)) - solve problems, including missing number problems, involving multiplication and division, including positive integer scaling problems and correspondences problems in which $n$ objects are connected to m objects | Perimeter of rectilinear shapes measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | Multiply non-unit fractions by an integer - multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Imperial measures - 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 three decimal places |
|  | One more, one less - given a number, identify one more and one less | Use arrays - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | Measure in m and cm - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (l/ml) | Find missing lengths in rectilinear shapes - measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | Multiply mixed numbers by integers - multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Use ratio language - solve problems involving unequal sharing and grouping using knowledge of fractions and multiples |
| Using a ten frame <br> Have a deep understanding of number to 10 , including the composition of each number. <br> Subitise (recognise quantities without counting) up to 5 . <br> Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10 , including double facts | Compare lengths and heights compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) | Make equal groups (grouping) solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | Measure in cm and mm measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Perimeter of regular polygons measure and calculate the perimeter of a rectilinear figure (including squares) in centimetres and metres | Multiply mixed numbers by integers (2) - multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Introduce the ratio symbol - solve problems involving unequal sharing and grouping using knowledge of fractions and multiples |
|  | Measure length (non-standard units of measure) - measure and begin to record the following: lengths and heights | Make equal groups (sharing) solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | Metres, centimetres and millimetres - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Count beyond 1 - non statutory guidance: they practise counting using simple fractions and decimals, both forwards and backwards | Fraction of an amount - multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Ratio and fractions - solve problems involving unequal sharing and grouping using knowledge of fractions and multiples |
|  | Measure length (using a ruler) measure and begin to record the following: lengths and heights | 2 times table - recall and use multiplication and division facts for the 2, 5 and 10 multiplication | Equivalent lengths ( m and cm ) measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); | Partition a mixed number - ready to progress criteria (4F-1): reason about the location of mixed | Finding the whole - multiply proper fractions and mixed numbers by whole numbers, | Scale drawing - solve problem involving similar shapes where the scale factor is known or can be found |


|  |  | tables, including recognising odd and even numbers | mass (kg/g); volume/capacity (l/ml) | numbers in the linear number system | supported by materials and diagrams |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Solve word problems (length) compare, describe and solve practical problems for: lengths and heights (for example, long/short, longer/shorter, tall/short, double/half) | Divide by 2 - recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers | Equivalent lengths ( mm and cm ) measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Number lines with mixed numbers - ready to progress criteria (4F-1): reason about the location of mixed numbers in the linear number system | Using fractions as operators multiply proper fractions and mixed numbers by whole numbers, supported by materials and diagrams | Scale factors - solve problem involving similar shapes where the scale factor is known or can be found |
| The part whole model to 10 <br> Have a deep understanding of number to 10 , including the composition of each number. | Heavier and lighter - compare, describe and solve practical problems for: mass/weight (for example, heavy/light, heavier than, lighter than) | Doubling and halving - recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers | Compare lengths - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Compare and order mixed numbers - ready to progress criteria ( $4 \mathrm{~F}-1$ ): reason about the location of mixed numbers in the linear number system | Write decimals up to 2 decimal places (less than 1) - read, write, order and compare numbers with up to three decimal places | Similar shapes - solve problem involving similar shapes where the scale factor is known or can be found |
| Subitise (recognise quantities without counting) up to 5 . <br> Automatically recall (without reference to rhymes, counting or other aids) number bonds up to 5 (including subtraction facts) and some number bonds to 10 , including double facts | Measure mass - measure and begin to record the following: mass/weight | Odd and even numbers - recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers | Add lengths - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (l/ml) | Convert mixed numbers to improper fractions - ready to progress criteria (4F-2): convert mixed numbers to improper fractions and vice versa | Write decimals up to 2 decimal places (greater than 1) - read, write, order and compare numbers with up to three decimal places | Ratio problems - solve problems involving unequal sharing and grouping using knowledge of fractions and multiples |
|  | Compare mass - compare, describe and solve practical problems for: mass/weight (for example, heavy/light, heavier than, lighter than) | 10 times table - recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers | Subtract lengths - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (l/ml) | Convert improper fractions to mixed numbers - ready to progress criteria (4F-2): convert mixed numbers to improper fractions and vice versa | Equivalent fractions and decimals (tenths) - read and write decimals numbers as fractions (for example, $0.71=71 / 100$ ) | Problem solving (ratio and proportion) - solve problems involving unequal sharing and grouping using knowledge of fractions and multiples |
|  | Full and empty - compare, describe and solve practical problems for: capacity and volume (for example, full/empty, more than, less than, half, half full, quarter.) | Divide by 10 - recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers | Measure perimeter - measure the perimeter of simple 2D shapes | Equivalent fractions - recognise and show, using diagrams, families of common equivalent fractions | Equivalent fractions and decimals (hundredths) - read and write decimals numbers as fractions (for example, $0.71=71 / 100$ ) | Problem solving (ratio and proportion (2) ) - solve problems involving unequal sharing and grouping using knowledge of fractions and multiples |
| Subtraction <br> Have a deep understanding of number to 10 , including the composition of each number. | Measure capacity - measure and begin to record the following: capacity and volume | 5 times table - recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers | Calculate perimeter - measure the perimeter of simple 2D shapes | Equivalent fraction families recognise and show, using diagrams, families of common equivalent fractions | Equivalent fractions and decimals - read and write decimals numbers as fractions (for example, $0.71=71 / 100$ ) | Find a rule (one step) - generate and describe linear number sequences |
|  | Compare capacity - compare, describe and solve practical problems for: capacity and volume (for example, full/empty, more than, less than, half, half full, quarter.) | Divide by 5 - recall and use multiplication and division facts for the 2,5 and 10 multiplication tables, including recognising odd and even numbers | Problem solving (length) measure the perimeter of simple 2 D shapes | Simplifying fractions - recognise and show, using diagrams, families of common equivalent fractions | Thousandths as fraction recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Find a rule (two steps) - generate and describe linear number sequences |
|  | Solve word problems (mass and capacity) - compare, describe and solve practical problems for: capacity and volume (for example, full/empty, more than, less than, half, half full, quarter.) | Bar modelling (grouping) - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts | Understand the denominator of unit fractions - recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators | Add and subtract two or more fractions - add and subtract fractions with the same denominator | Thousandths as decimals recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Form expressions - generate and describe linear number sequences |
|  | Count in 2s - count, read and write number to 100 in numerals; count in multiples of twos, fives and tens | Bar modelling (sharing) - solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and | Compare and order unit fractions - recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators | Add fractions and mixed numbers - add and subtract fractions with the same denominator | Thousandths on a place value grid - recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Substitution - express missing number problems algebraically |


|  |  | division facts, including problems in contexts |  |  |  |  |
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| Making simple patterns <br> There is no specific ELG related to this unit. This unit supports the Development Matters statement Select, Continue, copy and create repeating patterns | Count in 10s - count, read and write number to 100 in numerals; count in multiples of twos, fives and tens | Measure in cm - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | Understand the numerator of nonunit fractions - recognise and use fractions as numbers: unit fractions and non-unit fractions with small denominators | Subtract from mixed numbers add and subtract fractions with the same denominator | Order and compare decimals (same number of decimal places) - read, write, order and compare numbers with up to three decimal places | Substitution (2) - express missing number problems algebraically |
|  | Counts in 5 s - count, read and write number to 100 in numerals; count in multiples of twos, fives and tens | Measure in m - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | Understand the whole recognise and use fractions as numbers: unit fractions and nonunit fractions with small denominators | Subtract from whole amounts add and subtract fractions with the same denominator | Round to the nearest whole number - round decimals with two decimal places to the nearest whole number and to one decimals place | Formulae - use simple formulae |
|  | Make equal groups - solve onestep problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher | Compare lengths and heights compare and order lengths, mass, volume/capacity and record the results using <, > and = | Compare and order non-unit fractions - compare and order unit fractions, and fractions with the same denominators | Problem solving (add and subtract fractions) - solve problems involving increasingly harder fraction to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number | Round to one decimal place round decimals with two decimal places to the nearest whole number and to one decimals place | Form and solve equations express missing number problems algebraically |
|  | Add equal groups- 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 | Order lengths and heights compare and order lengths, mass, volume/capacity and record the results using <, > and = | Divisions on a number line compare and order unit fractions, and fractions with the same denominators | Problem solving (add and subtract fractions (2)) - solve problems involving increasingly harder fraction to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number | Understand percentages recognise the per cent symbol and understand that per cent related to 'number of parts per hundred,' and write percentages as a fraction with denominator 100, and as a decimal | Solve two-step equations express missing number problems algebraically |
| Exploring more complex patterns <br> There is no specific ELG related to this unit. This unit supports the Development Matters statement Select, Continue, copy and create repeating patterns | Make arrays - 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 | Four operations with lengths and heights - solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures | Count in fractions on a number line - compare and order unit fractions, and fractions with the same denominators | Fraction of an amount - non statutory lesson | Percentages as fractions and decimals - recognise the per cent symbol and understand that per cent related to 'number of parts per hundred,' and write percentages as a fraction with denominator 100 , and as a decimal | Find pairs of values - find pairs of numbers that satisfy an equation with two unknowns |
|  | Make doubles - 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 | Compare mass - compare and order lengths, mass, volume/capacity and record the results using <, > and = | Equivalent fractions as bar models - recognise and show, using diagrams, equivalent fractions with small denominators | Problem solving (fraction of an amount) - solve problems involving increasingly harder fraction to calculate quantities, and fractions to divide quantities, including non-unit fractions where the answer is a whole number | Equivalent fractions, decimals and percentages - recognise the per cent symbol and understand that per cent related to 'number of parts per hundred,' and write percentages as a fraction with denominator 100 , and as a decimal | Solve problems with two unknowns - enumerate possibilities of combination of two variables |
|  | Make equal groups (grouping) solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial | Measure in grams - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature | Equivalent fractions on a number line - recognise and show, using diagrams, equivalent fractions with small denominators | Tenths as fractions - recognise and write decimal equivalents of any number of tenths or hundredths | Perimeter of rectangles measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres | Shapes (same area) - recognise that shapes with the same areas can have different perimeters and vice versa |


|  | representations and arrays with the support of the teacher | (C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Make equal groups (sharing) 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 | Measure in kilograms - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | Equivalent fractions - recognise and show, using diagrams, equivalent fractions with small denominators | Tenths as decimals - recognise and write decimal equivalents of any number of tenths or hundredths | Perimeter of rectilinear shapes measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres | Area and perimeter - recognise that shapes with the same areas can have different perimeters and vice versa |
| Adding by counting on <br> Have a deep understanding of number to 10 , including the composition of each number. | Recognise and find a half of a shape - recognise, find and name half as one of two equal parts of an object, shape or quantity | Compare volume and capacity compare and order lengths, mass, volume/capacity and record the results using <, > and =- | Use scales - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Tenths on a place value grid recognise and write decimal equivalents of any number of tenths or hundredths | Perimeter of rectilinear shapes (2) - measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres | Area and perimeter (missing lengths) - recognise that shapes with the same areas can have different perimeters and vice versa |
|  | Recognise and find a half of a quantity - recognise, find and name half as one of two equal parts of an object, shape or quantity | Measure in millilitres - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | Measure mass - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity ( $/ / \mathrm{ml}$ ) | Tenths on a number line recognise and write decimal equivalents of any number of tenths or hundredths | Perimeter of polygons - measure and calculate the perimeter of composite rectilinear shapes in centimetres and metres | Area of a triangle (counting squares) - calculate the area of parallelograms and triangles |
|  | Recognise and find a quarter of a shape - recognise, find and name half as one of two equal parts of an object, shape or quantity | Measure in litres - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | Measure mass in kilograms and grams - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Tenths on a number line (2) recognise and write decimal equivalents of any number of tenths or hundredths | Area of rectangles - calculate and compare the area of rectangles (including squares,) and including using standard units, square centimetres and square metres and estimate the area of irregular shapes | Area of right angled triangle calculate the area of parallelograms and triangles |
|  | Recognise and find a quarter of a quantity - recognise, find and name half as one of two equal parts of an object, shape or quantity | Measure temperature using a thermometer - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres $/ \mathrm{ml}$ ) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | Equivalent masses (kg and g) measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Divide 1-digit by 10 - find the effect of dividing a one or twodigit number by 10 and 100 , identifying the value of the digits in the answer as ones, tenths and hundredths | Area of rectangles (2) - calculate and compare the area of rectangles (including squares,) and including using standard units, square centimetres and square metres and estimate the area of irregular shapes | Area of any triangle - calculate the area of parallelograms and triangles |
| Taking away by counting back <br> Have a deep understanding of number to 10 , including the composition of each number. | Describe turns - describe position, direction and movement, including whole, half, quarter and three-quarter turns | Read thermometers - choose and use appropriate standard units to estimate and measure length/height in any direction ( $\mathrm{m} / \mathrm{cm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); temperature (C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels | Compare mass - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (l/ml) | Divide 2-digts by 10 - find the effect of dividing a one or twodigit number by 10 and 100, identifying the value of the digits in the answer as ones, tenths and hundredths | Area of compound shapes calculate and compare the area of rectangles (including squares,) and including using standard units, square centimetres and square metres and estimate the area of irregular shapes | Area of a parallelogram recognise when it is possible to use formulae for area and volume of shapes |


|  | Describe position (left and right) Non statutory guidance: pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside | Make tally charts - interpret and construct simple pictograms, tally charts, block diagrams and simple tables | Add and subtract mass measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Hundredths as fractions recognise and write decimal equivalents of any number of tenths or hundredths | Estimate area - calculate and compare the area of rectangles (including squares,) and including using standard units, square centimetres and square metres and estimate the area of irregular shapes | Problem solving (area) - calculate the area of parallelograms and triangles |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Describe position (forwards and backwards) - Non statutory guidance: pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside | Tables - interpret and construct simple pictograms, tally charts, block diagrams and simple tables | Problem solving (mass) measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity ( $1 / \mathrm{ml}$ ) | Hundredths as decimals recognise and write decimal equivalents of any number of tenths or hundredths | Draw line graphs - solve comparison, sum and difference problems using information presented in a line graph | Problem solving (perimeter) recognise that shapes with the same areas can have different perimeters and vice versa |
|  | Describe position (above and below) - Non statutory guidance: pupils use the language of position, direction and motion, including: left and right, top, middle and bottom, on top of, in front of, above, between, around, near, close and far, up and down, forwards and backwards, inside and outside | Block diagrams - interpret and construct simple pictograms, tally charts, block diagrams and simple tables | Measure capacity and volume in millilitres - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (l/ml) | Hundredth on a place value grid recognise and write decimal equivalents of any number of tenths or hundredths | Read and interpret line graphs solve comparison, sum and difference problems using information presented in a line graph | Volume (count cubes) - calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres and extending other units (for example, cubic millimetres and cubic kilometres) |
| Counting to and from 20 <br> Verbally count beyond 20, recognising the pattern of the counting system | Ordinal numbers - Non-statutory guidance: pupils practise counting ( $1,2,3 \ldots$ ), ordering (for example, first, second, third...,) and to indicate a quantity (for example, 3 apples, 2 centimetres,) including solving simple concrete problems, until they are fluent. | Draw pictograms (1-1) interpret and construct simple pictograms, tally charts, block diagrams and simple tables | Compare capacity and volume measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Divide 1 or 2-digits by 100 - 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 | Read and interpret line graphs (2) - solve comparison, sum and difference problems using information presented in a line graph | Volume of a cuboid - calculate, estimate and compare volume of cubes and cuboids using standard units, including cubic centimetres and cubic metres and extending other units (for example, cubic millimetres and cubic kilometres) |
|  | Count from 50 to 100 - count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens | Interpret pictograms (1-1) - ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity | Equivalent capacities and volumes (litres and ml ) - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass ( $\mathrm{kg} / \mathrm{g}$ ); volume/capacity (l/ml) | Dividing by 10 and 100 - find the effect of dividing a one or twodigit number by 10 and 100 , identifying the value of the digits in the answer as ones, tenths and hundredths | Read and interpret tables complete, read and interpret information in tables, including timetables | Interpret line graphs - interpret and construct pie charts and line graphs and use these to solve problems |
|  | 10s to 100 - count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens | Draw pictograms (2, 5 and 10) interpret and construct simple pictograms, tally charts, block diagrams and simple tables | Compare capacity and volume measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Make a whole - recognise and write decimal equivalents of any number of tenths or hundredths | Two-way tables - complete, read and interpret information in tables, including timetables | Draw line graphs - interpret and construct pie charts and line graphs and use these to solve problems |
|  | Partition into 10s and 1s - identify and represent numbers using objects and pictorial representations including the number, and use the language of : | Interpret pictograms (2, 5 and 10) - ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity | Add and subtract capacity and volume - measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Partitioning decimals - recognise and write decimal equivalents of any number of tenths or hundredths | Timetables (reading) - complete, read and interpret information in tables, including timetables | Advanced bar charts - interpret and construct pie charts and line graphs and use these to solve problems |


|  | equal to, more than, less than (fewer), most, least |  |  |  |  |  |
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| Doubling <br> Explore and represent patterns within numbers up to 10 , including evens and odds, double facts and how quantities can be distributed equally | Number line to 100 - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Introducing parts and wholes recognise, find and name a half as one of two equal parts of an object, shape or quantity (year 1) | Problem solving (capacity) measure, compare, add and subtract: lengths ( $\mathrm{m} / \mathrm{cm} / \mathrm{mm}$ ); mass (kg/g); volume/capacity (l/ml) | Flexible partitioning decimals recognise and write decimal equivalents of any number of tenths or hundredths | Understand and use degrees know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles | Understand and complete pie charts - interpret and construct pie charts and line graphs and use these to solve problems |
|  | One more and one less - given a number, identify one more and one less | Equal and unequal parts recognise, find and name a half as one of two equal parts of an object, shape or quantity (year 1) | Add fractions - add and subtract fractions with the same denominator within one whole (for examples, $5 / 7+1 / 7=6 / 7$ ) | Compare decimals - compare numbers with the same number of decimal places up to two decimal places | Measure acute angles - know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles | Read and interpret pie charts interpret and construct pie charts and line graphs and use these to solve problems |
|  | Compare numbers - identify and represent numbers using objects and pictorial representations including the number, and use the language of : equal to, more than, less than (fewer), most, least | Recognise a half - recognise, find and name a half as one of two equal parts of an object, shape or quantity (year 1) | Subtract fractions - add and subtract fractions with the same denominator within one whole (for examples, $5 / 7+1 / 7=6 / 7$ ) | Order decimals - compare numbers with the same number of decimal places up to two decimal places | Measure angles up to 180 - know angles are measured in degrees: estimate and compare acute, obtuse and reflex angles | Pie charts and fractions - interpret and construct pie charts and line graphs and use these to solve problems |
|  | Recognising coins - recognise and know the value of different denominations of coins and notes | Find a half - recognise, find and name a half as one of two equal parts of an object, shape or quantity (year 1) | Partitioning the whole - add and subtract fractions with the same denominator within one whole (for examples, $5 / 7+1 / 7=6 / 7$ ) | Round to the nearest whole round decimals with one decimal place to the nearest whole number | Draw lines and angles accurately - draw given angles, and measure them in degrees | Pie charts and fractions (2) interpret and construct pie charts and line graphs and use these to solve problems |
| Halving and sharing <br> Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally | Recognising notes - recognise and know the value of different denominations of coins and notes | Recognise a quarter - recognise, find and name a half as one of two equal parts of an object, shape or quantity (year 1) | Problem solving (adding and subtracting fractions) - solve problems that involve all of the above | Halves and quarters as decimals recognise and write equivalents to $1 / 4,1 / 2,3 / 4$ | Calculate angles around a point identify: angles at a point and one whole total 360 ; angles at a point on a straight line and half a turn total 180; other multiples of 90 | Pie charts and percentages interpret and construct pie charts and line graphs and use these to solve problems |
|  | Counting in coins - recognise and know the value of different denominations of coins and notes | Find a quarter - recognise, find and name a half as one of two equal parts of an object, shape or quantity (year 1) | Unit fractions of a set of objects recognise, find and write fraction of a discrete set of objects: unit fractions and non-unit fractions with small denominators | Write money using decimals estimate, compare and calculate different measures, including money in pounds and pence | Calculate angles on a straight line - identify: angles at a point and one whole total 360 ; angles at a point on a straight line and half a turn total 180; other multiples of 90 | Introduction to the mean calculate and interpret the mean as an average |
|  | Before and after - sequence events in chronological order using language (for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening) | Thirds - recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of length, shape, set of objects or quantity | Non-unit fractions of a set of objects - recognise, find and write fraction of a discrete set of objects: unit fractions and nonunit fractions with small denominators | Convert between pounds and pence - estimate, compare and calculate different measures, including money in pounds and pence | Lengths and angles in shapes use the properties of rectangles to deduce related facts and find missing lengths and angles | Calculate the mean - calculate and interpret the mean as an average |
|  | Days of the week - recognise and use language relating to dates, including days of the week, weeks, months and years | Find the whole - recognise, find, name and write fractions $1 / 3,1 / 4$, $2 / 4$ and $3 / 4$ of length, shape, set of objects or quantity | Reasoning with fractions of an amount - recognise, find and write fraction of a discrete set of objects: unit fractions and nonunit fractions with small denominators | Compare amounts of money estimate, compare and calculate different measures, including money in pounds and pence | Regular and irregular polygons distinguish between regular and irregular polygons based on reasoning about equal sides and angles | Problem solving (mean) calculate and interpret the mean as an average |
| Odds and evens <br> Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally | Months of the year - recognise and use language relating to dates, including days of the week, weeks, months and years | Unit and non-unit fractions - write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ | Problem solving (fractions of measures) - solve problems that involve all of the above | Estimate with money - estimate, compare and calculate different measures, including money in pounds and pence | Parallel lines - identify horizontal and vertical lines and pairs of perpendicular and parallel lines (year 3) | Measure and classify angles draw 2dshapes using given dimensions and angles |
|  | Tell the time to the hour - tell the time to the hour and half past the hour and draw the hands on a clock face to show these times | Recognise the equivalence of a half and two quarters - write simple fractions for example, $1 / 2$ of $6=3$ and recognise the equivalence of $2 / 4$ and $1 / 2$ | Pounds and pence - add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts | Calculate with money - estimate, compare and calculate different measures, including money in pounds and pence | Perpendicular lines - identify horizontal and vertical lines and pairs of perpendicular and parallel lines (year 3) | Vertically opposite angles recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles |


|  | Tell the time to the half hour - tell the time to the hour and half past the hour and draw the hands on a clock face to show these times | Recognise three quarters recognise, find, name and write fractions $1 / 3,1 / 4,2 / 4$ and $3 / 4$ of length, shape, set of objects or quantity | Convert pounds and pence - add and subtract amounts of money to give change, using both $£$ and p in practical contexts | Solve problems with money estimate, compare and calculate different measures, including money in pounds and pence | Investigate lines - identify horizontal and vertical lines and pairs of perpendicular and parallel lines (year 3) | Angles in a triangle - compare and classify geometric shapes based on their properties and sized and find unknown angles in any triangle, quadrilateral and regular polygons |
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|  |  | Count in fractions up to a whole Non statutory guidance: pupils should count in fractions up to 10 , starting from any number and using the $1 / / 2$ and $2 / 4$ equivalence on the number line (for example, $11 / 4,12 / 4,1^{3 / 4}, 2$ ) | Add money - add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts | Years, months, weeks and days convert between different units of measure (for example, kilometre to metre; hour to minute) | 3D shapes - identify 3D shapes, including cubes and other cuboids, from 2D representations | Angles in a triangle (special cases) - compare and classify geometric shapes based on their properties and sized and find unknown angles in any triangle, quadrilateral and regular polygons |
| Composing and decomposing shapes <br> There is no specific ELG related to this unit. This unit supports the Development Matters statement Select, rotate and manipulate shapes in order to develop spatial reasoning skills |  | Language of 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 anticlockwise) | Subtract money - add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts | Hours, minutes and seconds convert between different units of measure (for example, kilometre to metre; hour to minute) | Read and plot coordinates describe positions on a 2D grid as coordinates in the first quadrant (Year 4) | Angles in a triangle (missing angles) - compare and classify geometric shapes based on their properties and sized and find unknown angles in any triangle, quadrilateral and regular polygons |
|  |  | Describe movement - 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 | Find change - add and subtract amounts of money to give change, using both $£$ and $p$ in practical contexts | Convert between analogue and digital times - convert between different units of measure (for example, kilometre to metre; hour to minute) | Problem solving with coordinates - describe positions on a 2D grid as coordinates in the first quadrant (Year 4) | Angles in quadrilaterals compare and classify geometric shapes based on their properties and sized and find unknown angles in any triangle, quadrilateral and regular polygons |
|  |  | Describe 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 | Roman numerals to 12 - tell and write the time form an analogue clock, including using Roman numerals from I to XIII, and 12hour and 24-hour clocks | Convert to the 24 hour clock convert between different units of measure (for example, kilometre to metre; hour to minute) | Translate shapes - 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 | Angles in polygons - compare and classify geometric shapes based on their properties and sized and find unknown angles in any triangle, quadrilateral and regular polygons |
|  |  | Describe movement and 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 anticlockwise | Tell the time to 5 minutes - tell and write the time form an analogue clock, including using Roman numerals from I to XIII, and 12-hour and 24 -hour clocks | Problem solving (converting time) - convert between different units of measure (for example, kilometre to metre; hour to minute) | Translate points - 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 | Circles - illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius |
| Volume and capacity <br> Compare quantities up to 10 in different contexts, recognising |  | Shape patterns with turns - use mathematical vocabulary to describe position, direction and movement, including movement | Tell the time to the minute - tell and write the time form an analogue clock, including using | Identify angles - identify acute and obtuse angles and compare and order angles up to two right angles by size | Lines of symmetry - identify lines of symmetry in 2D shapes presented in different orientations | Parts of a circle - illustrate and name parts of circles, including radius, diameter and |


| when one quantity is greater than, less than or the same as the other quantitiy |  | 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 | Roman numerals from I to XIII, and 12-hour and 24 -hour clocks |  |  | circumference and know that the diameter is twice the radius |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | O-clock and half past - tell the time to the hour and half past the hour and draw the hands on a clock face to show these times (Year 1) | Convert past and to the hour estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hour; use vocabulary such as o'clock, am/pm, morning, afternoon noon and midnight | Compare and order angles identify acute and obtuse angles and compare and order angles up to two right angles by size | Reflections in horizontal and vertical lines - identify, describe and represent the position of a shape following a refection or translation, using the appropriate language, and know that the shape has not changed | Draw shapes accurately - draw 2 D shapes using given dimensions and angles |
|  |  | Quarter past and quarter to - 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 | Using am and pm - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hour; use vocabulary such as o'clock, am/pm, morning, afternoon noon and midnight | Triangles - compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes | Add and subtract decimals within 1 - solve problems involving number up to three decimal places | Nets of 3D shapes - recognise, describe and build simple 3D shapes, including making nets |
|  |  | Tell the time to 5 minutes - 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 | Years, months and days - know the number of seconds in a minute and the number of days in each month, year and leap year | Quadrilaterals - compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes | Add and subtract decimals within 1 (2) - solve problems involving number up to three decimal places | Nets of 3D shapes (2) recognise, describe and build simple 3D shapes, including making nets |
| Sorting into 2 groups <br> This unit optional because sorting is not covered in the EYFS Framework or Development Matters guidance for Reception. It does provide an introduction to the concept of sorting, which will be useful in Year 1 |  | Minutes in an hour - know the number of minutes in an hour and the number of hours in a day | Days and hours - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hour; use vocabulary such as o'clock, am/pm, morning, afternoon noon and midnight | Polygons - compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes | Complements to 1 - solve problems involving number up to three decimal places | The first quadrant - describe positions on the full coordinate grid (all four quadrants) |
|  |  | Hours in a day - know the number of minutes in an hour and the number of hours in a day | Hours and minutes (start and end times) - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hour; use vocabulary such as o'clock, am/pm, morning, afternoon noon and midnight | Reasoning about polygons compare and classify geometric shapes, including quadrilaterals and triangles, based on their properties and sizes | Add and subtract decimals (bridging) - solve problems involving number up to three decimal places | Read and plot points in four quadrants - describe positions on the full coordinate grid (all four quadrants) |
|  |  | My way, your way! - use place value and number facts to solve problems | Hours and minutes (durations) compare durations of events (for example to calculate the time taken by particular events or tasks) | Lines of symmetry - identify lines of symmetry in 2D shapes presented in different orientations | Add decimals (same number of decimal places) - solve problems involving number up to three decimal places | Solve problems with coordinates describe positions on the full coordinate grid (all four quadrants) |
|  |  | Using number facts - use place value and number facts to solve problems | Hours and minutes (compare durations) - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hour; use | Complete a symmetric figure complete a simple symmetric figure with respect to a specific line of symmetry | Subtract decimals with the same number of decimal places - solve problems involving number up to three decimal places | Translations - draw and translate simple shapes on the coordinate plane, and reflect them in the axes |


|  |  | vocabulary such as o'clock, am/pm, morning, afternoon noon and midnight |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| My day <br> This unit optional because sorting is not covered in the EYFS Framework or Development Matters guidance for Reception. It does provide an introduction to time, which will be useful in Year 1 | Using a 100 square - use place value and number facts to solve problems | Minutes and seconds - estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hour; use vocabulary such as o'clock, am/pm, morning, afternoon noon and midnight | Interpret charts - interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | Add decimals with different numbers of decimal places - solve problems involving number up to three decimal places | Reflections - draw and translate simple shapes on the coordinate plane, and reflect them in the axes |
|  | Getting started - use place value and number facts to solve problems | Solve problems with time estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hour; use vocabulary such as o'clock, am/pm, morning, afternoon noon and midnight | Solve problems with charts solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs | Subtract decimals with different numbers of decimal places - solve problems involving number up to three decimal places | Problem solving (place value) solve numbers and practical problems that involve all of the above |
|  | Missing numbers - recognise the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems | Turns and angles - recognise angles as a property of shape or description of a turn | Solve problems with charts (2) interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | Problem solving with decimals solve problems involving number up to three decimal places | Problem solving (negative numbers) - solve numbers and practical problems that involve all of the above |
|  | Mental addition and subtraction use place value and number facts to solve problems | Right angles in shapes recognise angles as a property of shape or description of a turn | Interpret line graphs - interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | Problem solving with decimals (2) - solve problems involving number up to three decimal places | Problem solving (addition and subtraction) - use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy |
|  | Mental addition and subtraction (2) - use place value and number facts to solve problems | Compare angles - identify right angles, recognise that tow 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 | Interpret line graphs (2) interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | Decimal sequences - read, write, order and compare numbers with up to three decimal places | Problem solving (four operations) - solve problems involving addition, subtraction, multiplication and division |
|  | Efficient subtraction - solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures | Measure and draw accurately draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them | Draw line graphs - interpret and present discrete and continuous data using appropriate graphical methods, including bar charts and time graphs | Multiply by 10 - recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Problem solving (four operations (2)) - solve problems involving addition, subtraction, multiplication and division |
|  | Solving problems (addition and subtraction) - use place value and number facts to solve problems | Horizontal and vertical - identify horizontal and vertical lines and pairs of perpendicular and parallel lines | Describe position - describe positions on a 2D grid as coordinated in the first quadrant | Multiply by 10, 100 and 1000 recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Problem solving (fractions) recall and use equivalences between simple fractions, decimals and percentages, including in different contexts |
|  | Solving problems with multiplication and division - solve problems with addition and subtraction: using concrete objects and pictorial representations, including those | Parallel and perpendicular identify horizontal and vertical lines and pairs of perpendicular and parallel lines | Describe position using coordinates - describe positions on a 2 D grid as coordinated in the first quadrant | Divide by 10 - recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Problem solving (decimals) recall and use equivalences between simple fractions, decimals and percentages, including in different contexts |


|  |  | involving numbers, quantities and measures |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Solving problems using the four operations - use place value and number facts to solve problems | Recognise and describe 2D shapes - draw 2 D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them | Plot coordinates - plot specified points and draw sides to complete a given polygon | Divide by 10,100 and 1000 - recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents | Problem solving (percentages) recall and use equivalences between simple fractions, decimals and percentages, including in different contexts |
|  |  |  | Recognise and describe 3D shapes - draw 2 D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them | Draw 2D shapes on a grid - plot specified points and draw sides to complete a given polygon | Understand negative numbers interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero | Problem solving (ratio and proportion) - solve problems involving unequal sharing and fractions and multiples |
|  |  |  | Make 3D shapes - draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them | Translate on a grid - describe movement between positions as translations of a given unit to the left/right and up/down | Count through zero - interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero | Problem solving (time) - use, read, write and convert between standard units, converting measurements of length, mass, volume and time from a smaller , and vice versa, using decimal notation to up to three decima places |
|  |  |  | Interpret pictograms - interpret and present data using bar charts, pictograms and tables | Describe translation on a grid describe movement between positions as translations of a given unit to the left/right and up/down | Compare and order negative numbers - interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero | Problem solving (time (2)) - 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 three decimal places |
|  |  |  | Interpret pictograms (2) - <br> interpret and present data using bar charts, pictograms and tables |  | Find the difference - interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers, including through zero | Problem solving (position and direction) - describe positions on a coordinate grid (all four quadrants) |
|  |  |  | Draw pictograms - interpret and present data using bar charts, pictograms and tables |  | Kilograms and kilometres convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram; litre and millilitre) | Problem solving (properties of shapes) - recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles |
|  |  |  | Interpret bar charts - interpret and present data using bar charts, pictograms and tables |  | Millimetres and millilitres convert between different units of metric measure (for example, kilometre and metre; centimetre and metre; centimetre and millimetre; gram and kilogram litre and milililitre) | Problem solving (properties of shapes (2)) - recognise angles where they meet at a point, are on a straight line, or are vertically opposite, and find missing angles |
|  |  |  | Draw bar charts - interpret and present data using bar charts, pictograms and tables |  | Convert units of length - convert between different units of metric measure (for example, kilometre and metre; centimetre and metre |  |



