

Number

To find the total number of items in a group by counting them all.

- I can put two groups of objects together.
- I can count all of them to find the total.

To count objects, actions and sounds.

- I can estimate how many objects there might be before counting.
- I can say whether my estimate was good or bad.
- I can say on number for each object, action or sound.
- I know the last number I say is the set total.
- I can count out a set of objects from a larger set.

To subitise.

- I can recognise a small quantity in a familiar pattern e.g dice.
- I can recognise a small quantity in a random arrangement.
- I can put objects into fives and tens frames.
- I can show the right amount of fingers without counting them out.

To link the number symbol (numeral) with its cardinal number.

- I can look at a number and collect or draw the right amount.

To count beyond ten.

- I can count beyond ten by rote.
- I can count along a number track, along a hundred square.

To compare numbers.

- I can compare groups of objects using words such as more/ fewer, more than, less than, the same as, equal to.
- I know that just because objects are small there still might be more than the larger objects.
- I can give the same number of objects to each child, toy etc.
- I can say when the same number has not been given.

To understand the one more one less relationship between consecutive numbers.

- I know that one more is the number after.
- I know that one less is the number before.

To begin using the language of addition and subtraction in practical activities.

(This is taken from the old development matters document as there was nothing about addition in the new document.)

- I know that putting two groups of objects/numbers together is adding.
- I can find the total.
- I know that take objects or numbers away is subtracting.
- I can find how many left.

To explore the composition of number to 10. (focus on 2,3,4 and 5 before moving on.)

- I can use equipment such as numicon to show e.g. that 3 is the same as 2 and 1, or six is the same as 3 and 3.
- I can show using my fingers how 6 is 5 and 1 more etc.
- I can split my objects into different groups for example I have 8 counters. I can split them into 5 and 3, or 7 and 1.

To automatically recall number bonds for numbers 0-10

- I can listen to rhymes to help learn my number bonds.
- I can use my fingers to help with number bonds.
- I know my number bonds.

Geometry, Properties of Shape, Position and Direction

To Select, rotate and manipulate shapes to develop spatial reasoning skills.

- I can complete a simple jigsaw.
- I can copy a shape pattern and rotate the shapes accordingly.

To compose and decompose shapes so that children recognise a shape can have other shapes within it.

- I know that I can make shapes form other shapes e.g. two triangles to make a square, two squares to make rectangle, two semi circles to make a circle etc.
- I can find 2D faces on 3D shapes.

To continue, copy and create repeating patterns.

- I can make an ABAB, ABB, ABBC pattern.
- I can spot mistakes in patterns.

Time

To begin to describe a sequence of events, real or fictional, using words such as first, then....

- I can talk about the order of event e.g. putting clothes on.
- I can use first, next, after, before.
- I can talk about times of day – morning, afternoon, evening.
- I can use vocabulary like earlier, later, too late, too soon, in a minute.

Measurement

To compare length, weight and capacity.

- I can predict which is longest, is heaviest, holds more etc.
- I can use comparative language in a sentence. This is heavier than.....

Mathematics

ELG: Number

Children at the expected level of development:

- Have a deep understanding of number to 10, including the composition of each number
- Subitise (recognise quantities without counting) up to 5
- 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

ELG: Numerical patterns

Children at the expected level of development will:

- verbally count beyond 20, recognising the pattern of the counting system
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity
- Explore and represent patterns within number up to 10, including evens and odds, double facts and how quantities can be distributed equally



Maths - Year One

National Curriculum Coverage

Number: Place Value

1. Count to and across 100, forwards and backwards, beginning with or 1, or from any given number
2. Count, read and write numbers to 100 in numerals; count in multiples of twos, fives and tens
3. Given a number, identify one more and one less
4. Identify and represent numbers using objects and pictorial representations including the number line, and use the language of equal to, more than, less than (fewer), most, least
5. Read and write numbers from 1 to 20 in numerals and words

Number: Addition and Subtraction

6. Read, write and interpret mathematical statements involving addition, subtraction and equals sign
7. Represent and use number bonds and related subtraction facts within 20
8. Add and subtract one-digit and two-digit numbers to 20, including zero
9. Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = \square - 9$

Number: Multiplication and Division

10. Solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher

Number: Fractions

11. Recognise, find and name a half as one of two equal parts of an object, shape or quantity
12. Recognise, find and name a quarter as one of four equal parts of an object, shape or quantity

Measurement

13. Compare, describe and solve practical problems for lengths and heights, mass and weight, capacity and volume and time
14. Measure and begin to record lengths and heights, mass and weight, capacity and volume and time
15. Recognise and know the value of different denominations of coins and notes
16. Sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening]
17. Recognise and use language relating to dates, including days of the week, weeks, months and years
18. Tell the time to the hour and half past the hour and draw the hands on a clock face to show these times

Geometry: Properties of Shape

19. Recognise and name common 2-D shapes, including: [for example, rectangles (including squares), circles and triangles]
20. Recognise and name common 3-D shapes, including: [for example, cuboids (including cubes), pyramids and spheres]

Geometry: Position and Direction

21. Describe position, direction and movement, including whole, half, quarter and three-quarter turns



Maths - Year Two

National Curriculum Coverage

Number: Place Value

1. Count in steps of 2, 3 and 5 from 0 and in 10s from any number forward or backward
2. Recognise the place value of each digit in a 2 digit number
3. Identify, represent and estimate numbers using different representations, including a number line
4. Compare and order numbers from 0 – 100, use $<$ $>$ and $=$ signs
5. Read and write numbers to at least 100 in numerals and in words
6. Use place value and number facts to solve problems

Number: Addition and Subtraction

7. Solve problems with addition and subtraction using concrete objects and pictorial representations, including those involving numbers, quantities and measures
8. Solve problems with addition and subtraction using mental and written methods
9. Recall and use addition and subtraction facts up to 20 fluently and derive and use related facts up to 100
10. Add and subtract numbers using concrete objects, pictorial representations and mentally including $TU + U$, $TU + 10$ (20, 30 etc), $TU + TU$, $U + U + U$
11. Show that addition of 2 numbers can be done in any order and subtraction cannot
12. Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems

Number: Multiplication and Division

13. Recall and use multiplication and division facts for the 2, 5 and 10 tables, including recognising odd & even nos
14. Calculate mathematical statements for multiplication and division and write them using the correct signs
15. Show that multiplication of 2 numbers can be done in any order but that division cannot
16. Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods and multiplication and division facts including problems in contexts

Number: Fractions

17. Recognise, find, name and write fractions, $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$, $\frac{3}{4}$ of a length, shape, set of objects or quantity
18. Write simple fractions e.g. $\frac{1}{2}$ of 6 = 3 and recognise the equivalence of $\frac{2}{4}$ and $\frac{1}{2}$

Measurement

19. Choose and use appropriate standard units to estimate and measure length/height (m/cm); mass (kg/g); temperature ($^{\circ}\text{C}$); capacity (l/ml) to the nearest unit using rulers, scales, thermometers and vessels
20. Compare and order lengths, mass, volume and capacity and record the results using $<$ $>$ $=$
21. Recognise and use symbols for \pounds p and combine amounts to make a particular value
22. Find different combinations of coins that equal the same amounts of money
23. Solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
24. Compare and sequence time intervals
25. Tell and write the time to 5 mins, including quarter past/to the hour and draw hands on a clock to show these times
26. Know the number of minutes in an hour and the number of hours in a day

Geometry: Properties of Shape

27. Identify and describe properties of 2D shapes, including the number of sides and the line of symmetry in a vertical line
28. Identify and describe properties of 3D shapes, including the number of edges, faces and vertices
29. Identify 2D faces on a 3D shape
30. Compare and sort common 2D and 3D shapes and everyday objects

Geometry: Position and Direction

31. Order and arrange combinations of mathematical objects in patterns and sequences
32. Use mathematical vocabulary to describe position, direction and movement including in a straight line and distinguish between rotation as a turn and in terms of right angles for $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$ quarter turns

Statistics

33. Interpret and construct simple pictograms, tally charts, block diagrams and simple tables
34. Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
35. Ask and answer questions about totalling and comparing categorical data



Maths - Year Three

National Curriculum Coverage

Number: Place Value

1. Count from 0 in multiples of 4, 8, 50 and 100. Find 10 or 100 more or less than a given number
2. Recognise the place value of each digit in a three-digit number
3. Compare and order numbers up to 1000
4. Identify, represent and estimate numbers using different representations
5. Read and write numbers up to 1000 in numerals and words
6. Solve number problems and practical problems involving these ideas

Number: Addition and Subtraction

7. Add and subtract numbers mentally, including $\text{HTU} + \text{U}$, $\text{HTU} + 10$, (20, 30 etc) and $\text{HTU} + 100$, (200, 300)
8. Add and subtract numbers with 3 digits using formal written methods of columnar addition and subtraction
9. Estimate the answers to a calculation and use inverse operations to check answers
10. Solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction

Number: Multiplication and Division

11. Recall and use multiplication and division facts for the 3, 4 and 8 times tables
12. Write and calculate mathematical statements for \times and division using the \times tables that they know, including for $\text{TU} \times \text{U}$ using mental methods and progressing to formal written methods
13. Solve problems, including missing number problems, involving \times and division, including positive integer scaling problems and correspondence problems in which n objects are connected to m objects

Number: Fractions

14. Count up and down in tenths; recognise that tenths arise from dividing an objects into 10 equal parts and in dividing one-digit numbers or quantities by 10
15. Recognise, find and write fractions of a discrete set of objects; unit fractions and non-unit fractions with small denominators
16. Recognise and use fractions as numbers; unit fractions and non-unit fractions with small denominators
17. Recognise and show using diagrams equivalent fractions with the same denominators.
18. Solve problems involving fractions

Measurement

19. Measure, compare, add and subtract: lengths (mm/cm/m); mass (kg/g); volume and capacity (l/ml)
20. Measure the perimeter of simple 2D shapes
21. Add and subtract amounts of money to give change, using both \pounds and p in practical contexts
22. Tell and write the time from an analogue clock, including using Roman numerals from I to XII and 12-hour and 24-hour clocks
23. Estimate and read time with increasing accuracy to the nearest minute; record and compare times in terms of seconds, minutes and hours; use vocabulary such as o'clock, am, pm, morning, noon and midnight
24. Know the number of seconds in a minute and the number of days in each month, year and leap year
25. Compare durations of events

Geometry: Properties of Shape

26. Draw 2D shapes and make 3D shapes using modelling materials; recognise 3D shapes in different orientations and describe them
27. Recognise angles as a property of shape or a description of a turn
28. Identify right angles, recognise that 2 right angles make a half turn; 3 make three quarters of a turn and 4 a complete turn; identify whether angles are greater than or less than a right angle
29. Identify horizontal and vertical lines and pairs of parallel and perpendicular lines

Statistics

30. Interpret and present data using bar charts, pictograms and tables
31. Solve one-step and two-step questions using information presented in scaled bar charts, pictograms and tables

Maths - Year Four

National Curriculum Coverage

Number: Place Value

1. Count in multiples of 6, 7, 9, 25 and 1000
2. Find 1000 more or less than a given number
3. Count backwards through zero to include negative numbers
4. Recognise the place value of each digit in a 4-digit number
5. Order and compare numbers beyond 1000
6. Identify, represent and estimate numbers using different representations
7. Round any number to the nearest 10, 100 or 1000
8. Solve number and practical problems with increasingly large positive numbers
9. Read Roman numerals to 100 and know that over time the numeral system changed to include the concept of zero and place value

Number: Addition and Subtraction

10. Add and subtract numbers with up to 4 digits, using the formal written methods of columnar addition and subtraction where appropriate
11. Estimate and use inverse operations to check answers to a calculation
12. Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why

Number: Multiplication and Division

13. Recall multiplication and division facts for tables up to 12 x 12
14. Use place value, known and derived facts to multiply and divide mentally, including multiplying by 0 and 1, dividing by 1 and multiplying 3 numbers
15. Recognise and use factor pairs and commutativity in mental calculations
16. Multiply 2-digit and 3-digit numbers by a 1-digit number using formal written layout
17. Solve problems involving multiplying and adding, including using distributive law to multiply 2-digit numbers by 1-digit number, integer scaling problems and harder correspondence problems subjects are connected to m objects

Number: Fractions

18. Recognise and show using diagrams families of common equivalent fractions
19. Count up and down in hundredths; recognise that hundredths arise when dividing an object by 100 & dividing tenths by 10
20. Solve problems involving increasingly harder fractions to calculate quantities and fractions to divide quantities including non-unit fractions where the answer is a whole number
21. Add and subtract fractions with the same denominator
22. Recognise and write decimal equivalents to any number of tenths or hundredths
23. Recognise and write decimal equivalents to $\frac{1}{4}$, $\frac{1}{2}$, $\frac{3}{4}$
24. Find the effect of dividing a 1 or 2-digit number by 10 or 100, identifying the value of the digits in the answer as ones, tenths and hundredths
25. Round decimals with one decimal place to the nearest whole number
26. Compare numbers with the same number of decimal places (up to 2 decimal places)
27. Solve simple measure and money problems involving fractions and decimals to 2 decimal places

Measurement

28. Convert between different units of measure
29. Measure and calculate the perimeter of a rectilinear figure in cm and m
30. Find the area of a rectilinear shape by counting squares
31. Estimate, compare and calculate different measures, including money in £ and p
32. Read, write and convert time between analogue and digital 12 and 24-hour clocks
33. Solve problems involving converting from hours to minutes, minutes to seconds, years to months and weeks to days

Geometry: Properties of Shape

34. Compare and classify geometric shapes, including quadrilaterals and triangles based on their properties and sizes
35. Identify acute and obtuse angles and compare and order angles up to 2 right angles by size
36. Identify lines of symmetry in 2D shapes presented in different orientations
37. Complete a simple symmetric figure with respect to a specific line of symmetry

Geometry: Position and Direction

38. Describe positions on a 2D grid as coordinates in the first quadrant
39. Describe movements between positions as translations of a given unit to the left/right and up/down
40. Plot specified points and draw sides to complete a given polygon

Statistics

41. Interpret & present discrete & continuous data using appropriate & graphical methods, including bar charts & time graphs
42. Solve comparison, sum and difference problems using information presented in bar charts, pictograms, tables and other graphs



Maths - Year Five

National Curriculum Coverage

Number: Place Value

1. Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit
2. Count forwards and backwards in steps of powers of 10 for any given number up to 1,000,000
3. Interpret negative numbers in context, count forwards and backwards with positive and negative whole numbers through zero
4. Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10,000, 100,000
5. Solve number problems and practical problems that involve all of the above
6. Read Roman numerals to 1000 and recognise years written in Roman numerals

Number: Addition and Subtraction

7. Add and subtract whole numbers with more than 4 digits, including using formal written methods
8. Add and subtract mentally with increasingly large numbers
9. Use rounding to check answers to calculations and determine in the context of a problem, levels of accuracy
10. Solve addition and subtraction multi-step problems in contexts deciding which operations and methods to use and why

Number: Multiplication and Division

11. Identify multiples and factors, including finding all factor pairs of a number and common factors of 2 numbers
12. Know and use the vocabulary of prime numbers, prime factors and composite numbers
13. Establish whether a number up to 100 is prime and recall prime numbers up to 19
14. 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
15. Multiply and divide numbers mentally drawing upon known facts
16. Divide numbers up to 4 digits by a one-digit number, using the formal written method of short division and interpret remainders appropriately for the context
17. Multiply and divide whole numbers and those involving decimals by 10, 100 and 1000
18. Recognise and use square numbers and cube numbers and the notation for squared and cubed
19. Solve problems involving multiplication and division including using knowledge of factors, multiples, squares and cubes
20. Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign
21. Solve problems involving multiplication and division, including scaling by simple fractions and problems involving simple rates

Number: Fractions

22. Compare and order fractions whose denominators are all multiples of the same number
23. Identify, name and write equivalent fractions of a given fraction, represented visually, including tenths and hundredths
24. Recognise mixed numbers and improper fractions and convert from one to another and write mathematical statements > 1 as a mixed number
25. Add and subtract fractions with the same denominator and multiples of the same number
26. Multiply proper fractions and mixed numbers by whole numbers supported by materials and diagrams
27. Read and write decimal numbers as fractions
28. Recognise and use thousandths and relate them to tenths, hundredths and decimal equivalents
29. Round numbers with 2 decimal places to the nearest whole number and to one decimal place
30. Read, write, order and compare numbers with up to three decimal places
31. Solve problems involving numbers up to 3 decimal places
32. Recognise the % symbol and understand that per cent relates to "number of parts per hundred". Write percentages as a fraction with denominator 100 and as a decimal
33. Solve problems which require knowing percentage and decimal equivalents of $\frac{1}{2}$, $\frac{1}{4}$, $\frac{1}{5}$, $\frac{2}{5}$, $\frac{4}{5}$ and those fractions with a denominator of a multiple of 10 or 25

Measurement

34. Convert between different units of metric measure
35. Understand and use equivalences between metric units and common imperial units such as inches, pounds and pints
36. Measure and calculate the perimeter of composite rectilinear shapes in cm and m
37. Calculate and compare area of rectangles and including standard units, square cm and m and estimate the area of irregular shapes
38. Estimate volume and capacity
39. Solve problems involving converting between units of time
40. Use all four operations to solve problems involving measure using decimal notation including scaling

Geometry: Properties of Shape

41. Identify 3D shapes including cubes and other cuboids from 2D representations
42. Know angles are measured in degrees. Estimate and compare acute, obtuse and reflex angles
43. Draw given angles and measure them in degrees
44. Identify angles at a point and one whole turn, angles at a point on a straight line and a half turn and other multiples of 90 degrees
45. Use the properties of rectangles to deduce related facts and find missing lengths and angles
46. Distinguish between regular and irregular polygons based on reasoning about equal sides and angles

Geometry: Position and Direction

47. 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

Statistics

48. Complete, read and interpret information in tables, including timetables
49. Solve comparison, sum and difference problems using information presented in a line graph



Maths - Year Six

National Curriculum Coverage

Number: Place Value

1. Read, Write, order and compare numbers up to 10,000,000 and determine the value of each digit
2. Round any whole number to a required degree of accuracy
3. Use negative numbers in context and calculate intervals across zero
4. Solve number and practical problems that involve number and place value

Number: Addition, Subtraction, Multiplication and Division

5. Multiply multi-digit numbers up to 4-digits by a two-digit whole number using the formal written method of long multiplication
6. Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions or by rounding, as appropriate for the context
7. 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
8. Perform mental calculations, including mixed operations and large numbers
9. Identify common factors, common multiples and prime numbers
10. Use knowledge of the order of operations to carry out calculations involving the four operations
11. Solve addition and subtraction multi-step problems in contexts, deciding which operation and methods to use and why
12. Solve problems involving addition, subtraction, multiplication and division.
13. Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy

Number: Fractions (including decimals and percentages)

14. Use common factors to simplify fractions; use common multiples to express fractions in the same denomination
15. Compare and order fractions, including fractions > 1
16. Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions
17. Multiply simple pairs of proper fractions, writing the answer in its simplest form
18. Divide proper fractions by whole numbers
19. Associate a fraction with division and calculate decimal fraction equivalents for a simple fraction
20. 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
21. Multiply one-digit numbers with up to 2 decimal places by whole numbers
22. Use written division methods in cases where the answer has up to two decimal places
23. Solve problems which require answers to be rounded to specified degrees of accuracy
24. Recall and use equivalences between simple fractions, decimals and percentages, including different contexts

Number: Ratio and Proportion

25. Solve problems involving the relative sizes of 2 quantities where missing values can be found by using integer multiplication and division facts
26. Solve problems involving the calculation of percentages and the use of percentages for comparison
27. Solve problems involving similar shapes where the scale factor is known or can be found
28. Solve problems involving unequal sharing and grouping using knowledge of fractions and multiples

Number: Algebra

29. Use simple formulae
30. Generate and describe linear number sequences
31. Express missing numbers algebraically
32. Find pairs of numbers that satisfy an equation with 2 unknowns
33. Enumerate possibilities of combinations of two variables

Measurement

34. Solve problems involving the calculation and conversion of units of measure, using decimal notation up to three decimal places
35. Use, read, write and convert between standard units, converting measurements of length, volume, mass and time using decimal notation up to 3 decimal places
36. Convert between miles and kilometres
37. Recognise that shapes with the same areas can have different perimeters and vice versa
38. Recognise when it is possible to use a formulae for area and volume of shapes
39. Calculate the area of parallelograms and triangles
40. Calculate, estimate and compare volume of cubes and cuboids using standard units and extending to other units

Geometry: Properties of Shape

41. Draw 2D shapes using given dimensions and angles
42. Recognise, describe and build simple 3D shapes, including making nets
43. Compare and classify geometric shapes based on their properties and sizes and find unknown angles in any triangle, quadrilaterals and regular polygon
44. Illustrate and name parts of circles, including radius, diameter and circumference and know that the diameter is twice the radius
45. Recognise angles where they meet at a point, are on a straight line or are vertically opposite, finding missing angles

Geometry: Position and Direction

46. Describe positions on the full coordinate grid
47. Draw and translate simple shapes on the coordinate plane and reflect them in the axes

Statistics

48. Interpret and construct pie charts and line graphs and use these to solve problems
49. Calculate and interpret the mean as an average