Areas of Maths in Year 2

- Number and place value
- Addition and Subtraction
- Multiplication and division
- Fractions
- Geometry
- Statistics
- Measurement

Number – number and place value

- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward and backward
- Recognise the place value of each digit in a two-digit number (tens, ones)
- Identify, represent and estimate numbers using different representations, including the number line
- Compare and order numbers from 0 up to 100, use <, > and = signs
- Read and write numbers to at least 100 in numerals and in words
- Use place value and number facts to solve problems

Can you make the number 32?

How many different ways can you make the number 32?
Number – addition and subtraction
- solve problems with addition and subtraction:
  - using concrete objects and pictorial representations, including those involving numbers, quantities and measures
  - applying their increasing knowledge of mental and written methods
- recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100
- add and subtract numbers using concrete objects, pictorial representations, and mentally
- show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot
- recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems

Number - multiplication and division
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers
- calculate mathematical statements for multiplication and division within the multiplication tables and write them using the multiplication (×), division (÷) and equals (=) signs
- show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot
- solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts
Number - multiplication and division

\[ 5 \times 6 = \quad 3 \times 7 = \quad 50 \div 10 = \]

\[ 18 \div 3 = \quad 12 \times 2 = \]

Number – fractions

- recognise, find, name and write fractions \(1/3\), \(1/4\), \(2/4\) and \(3/4\) of a length, shape, set of objects or quantity
- write simple fractions for example, \(1/2\) of \(6 = 3\) and recognise the equivalence of \(2/4\) and \(1/2\).

Measurement

- choose and use appropriate standard units to estimate and measure length/height in any direction; mass; temperature; capacity to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels
- compare and order lengths, mass, volume/capacity and record the results
- recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value
- find different combinations of coins that equal the same amounts of money
- solve simple problems in a practical context involving addition and subtraction of money of the same unit, including giving change
- compare and sequence intervals of time
- tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clock face to show these times
- know the number of minutes in an hour and the number of hours in a day

Geometry – properties of shapes

- identify and describe the properties of 2-D shapes, including the number of sides and line symmetry in a vertical line
- identify and describe the properties of 3-D shapes, including the number of edges, vertices and faces
- identify 2-D shapes on the surface of 3-D shapes, [for example, a circle on a cylinder and a triangle on a pyramid]
- compare and sort common 2-D and 3-D shapes and everyday objects

Geometry – position and direction

- order and arrange combinations of objects in patterns and sequences
- use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anticlockwise)
Statistics
- interpret and construct simple pictograms, tally charts, block diagrams and simple tables
- ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity
- ask and answer questions about totalling and comparing categorical data

Barriers to Progress
- Children with poor letter and number formation, stemming from pencil grips.
- Children with disorganised work or a reliance on insecure mental maths skills.
- Children with poor counting, number bond knowledge, times tables knowledge.
- Children finding it difficult to apply their arithmetic skills to a reasoning situation or problem.

How can you help at home?
- Be positive Maths role models!
- Counting
  - saying the number names in order
  - counting objects one at a time (moving them, lining them up)
  - counting fixed objects/pictures (lined, random)
  - secure knowledge of times tables
- Practical, real-life activities and games:
  - count the plates, cups, bowls etc as you lay the table...
  - count how many red cars you see as you walk along the road...
  - spot and say numbers you see around you: car reg plates, house numbers, food packaging numbers...
- Problem solving:
  - count/work out how many apples are left in the bag if we eat 3 apples today... What if we eat 2 more tomorrow?
  - I've got 2 eggs, 5 people want eggs, how many more eggs do I need?...
- Telling the time

Straws in tens and ones
Number pebbles for counting, comparing, adding etc
Number bonds or fractions with sticks
Addition with buttons
Leaves for multiplication

Lego for place value and counting in steps

Outdoor clock

Playing cards for missing number problems

Any questions!