MATHS MEETING 2024

Year 1

MATHS IN SCHOOL

Lesson Structure- We aim to teach math's in an engaging and interactive manner. A lesson in both year 1 and 2 begins with starter activity that recaps learning they have previously done. The children then get moving and in year 1 sing and dance to a counting song and in year 2 use the schools timetable dance to begin to reinforce timetable sequences in 2s, 5s, and 10s. The children will then begin looking at their aim for the lesson. We use the mastery approach and therefore all children are supported and challenged no matter their ability. The children will have practical equipment for every lesson using manipulatives or beyond creating creative lessons such as using hoops and beanbag's to create Part Part Whole. We do not encourage the use of worksheets and therefore children write in their books or we use images to build up class floorbooks. We do not want writing and recording to be a barrier so again children are supported where needed. Children also have opportunities to discuss their maths with partner work.

Lesson Length- Year 1 30-45 minutes- Year 2- 45 minutes

In addition- We also use the Nathan Crook NCTEM scheme to provide a solid base to the fundamentals in number fluency.

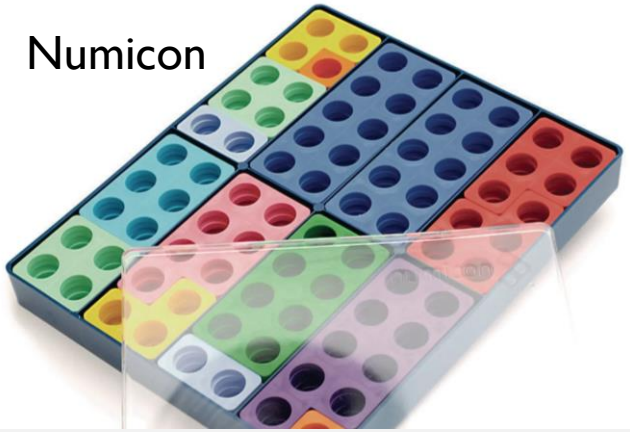
ADAPTION

The mastery approach allows all children to meet their potential -the use of manipulative supports all children and if additional steps or scaffolding is needed for a child it is provided in class. Children can also sometimes have addition support in intervention where needed.

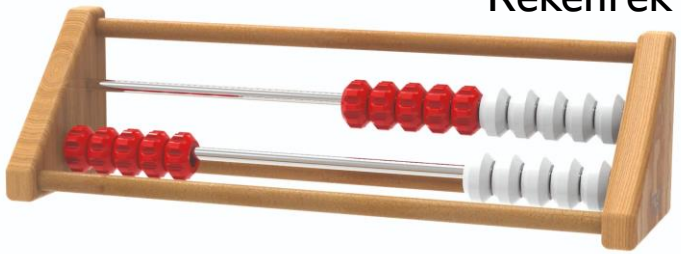
When looking at the next steps we think of bigger thinking not bigger numbers. We want children to be rich in mathematical dialogue, to be able to reason mathematically, problem solve and develop a range of strategies.

MATHS MANIPULATIVES IN SCHOOL

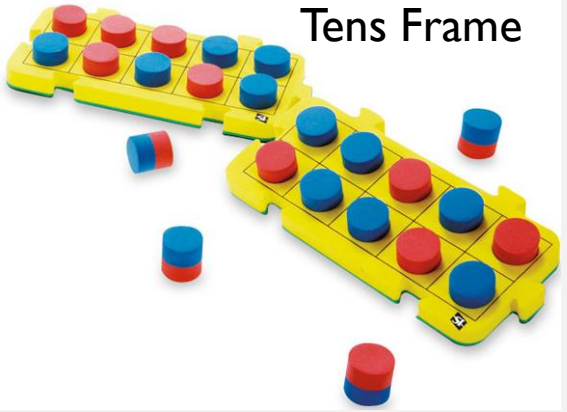
Numicon



Rekenrek



Tens Frame



Multilink

Diennes

METHODS

Addition and Subtraction

Part Part Whole
Bar Model
Numbers and Shapes (numicon)
Ten Frames
Number Line
Number Track
Base Ten/Place Value Counters
Column Addition

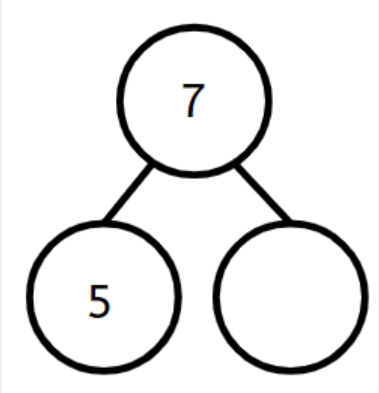
Multiplication and Division (grouping and sharing)

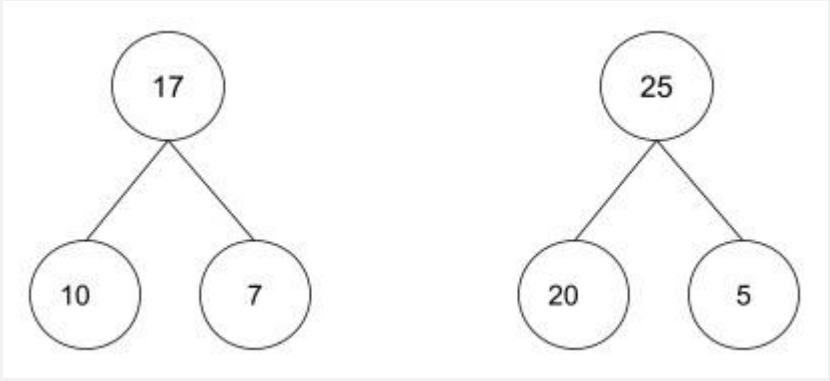
Bar Model
Tens Frames
Counters
Beads
Every day objects

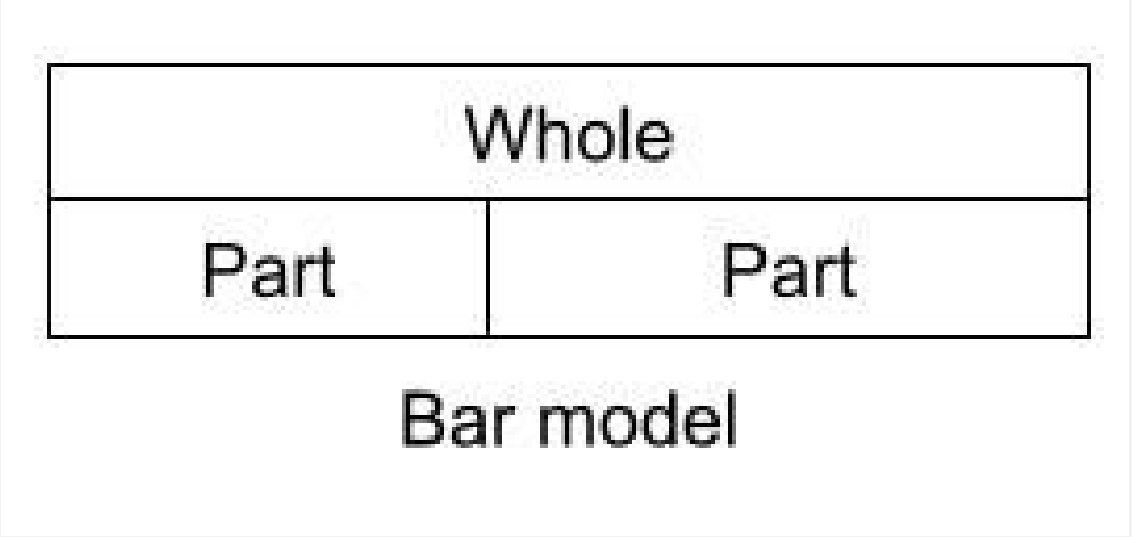
Measures

When using measures we use practical objects.
Capacity- ml and l
Length- cm and m
Weight- kg and g

PART PART WHOLE AND BAR MODEL



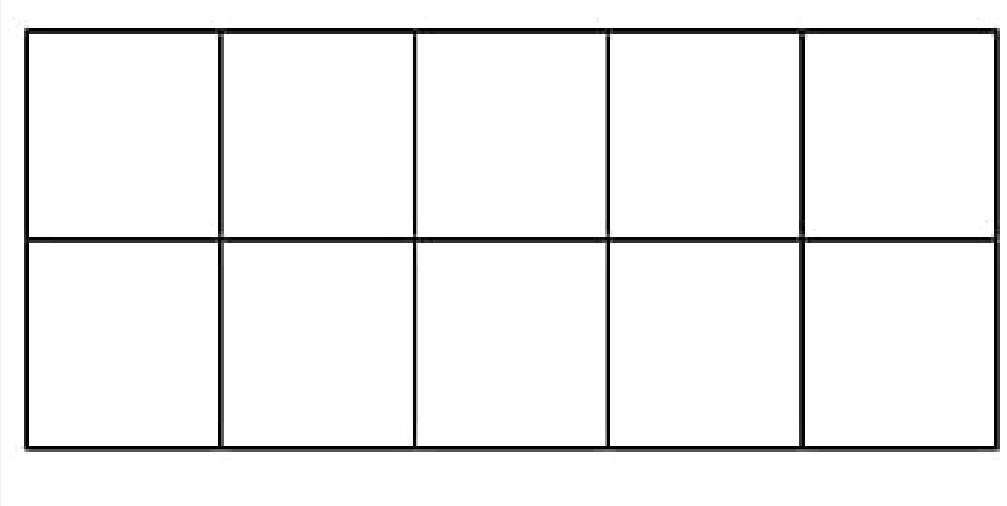


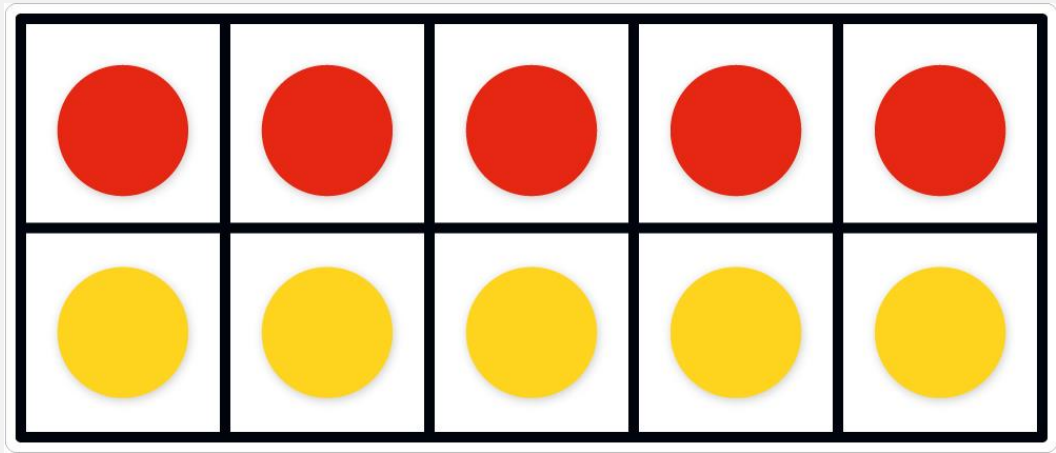


Bar model

The whole number is the largest number.

TENS FRAME

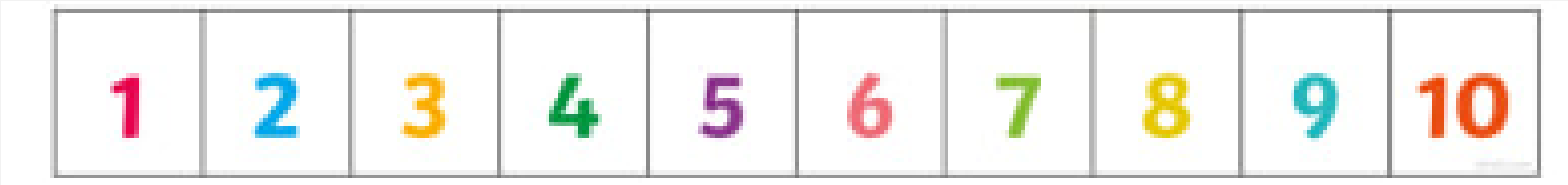




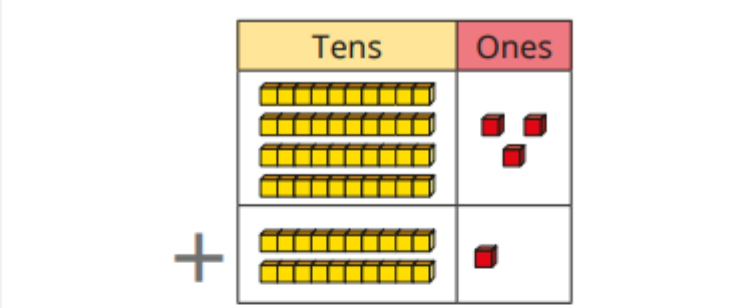
In year 1 they are used to show bonds within ten and to ten.

In year 2 the children can use more than one to build up two digit numbers when thinking of the place value.

NUMBER TRACK AND NUMBER LINES



ADDING TWO DIGIT NUMBERS (NOT ACROSS A TEN)



☐ ones + ☐ one = ☐ ones

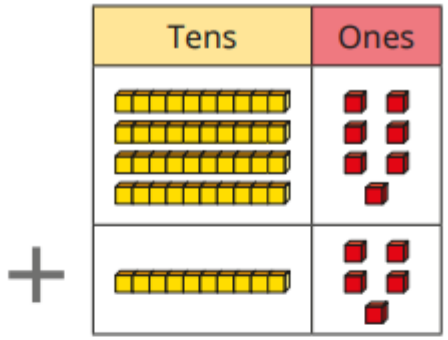
There are ☐ ones altogether.

☐ tens + ☐ tens = ☐ tens

There are ☐ tens altogether.

☐ + ☐ = ☐

ADDING TWO DIGIT NUMBERS (ACROSS A TEN)



Add the ones.

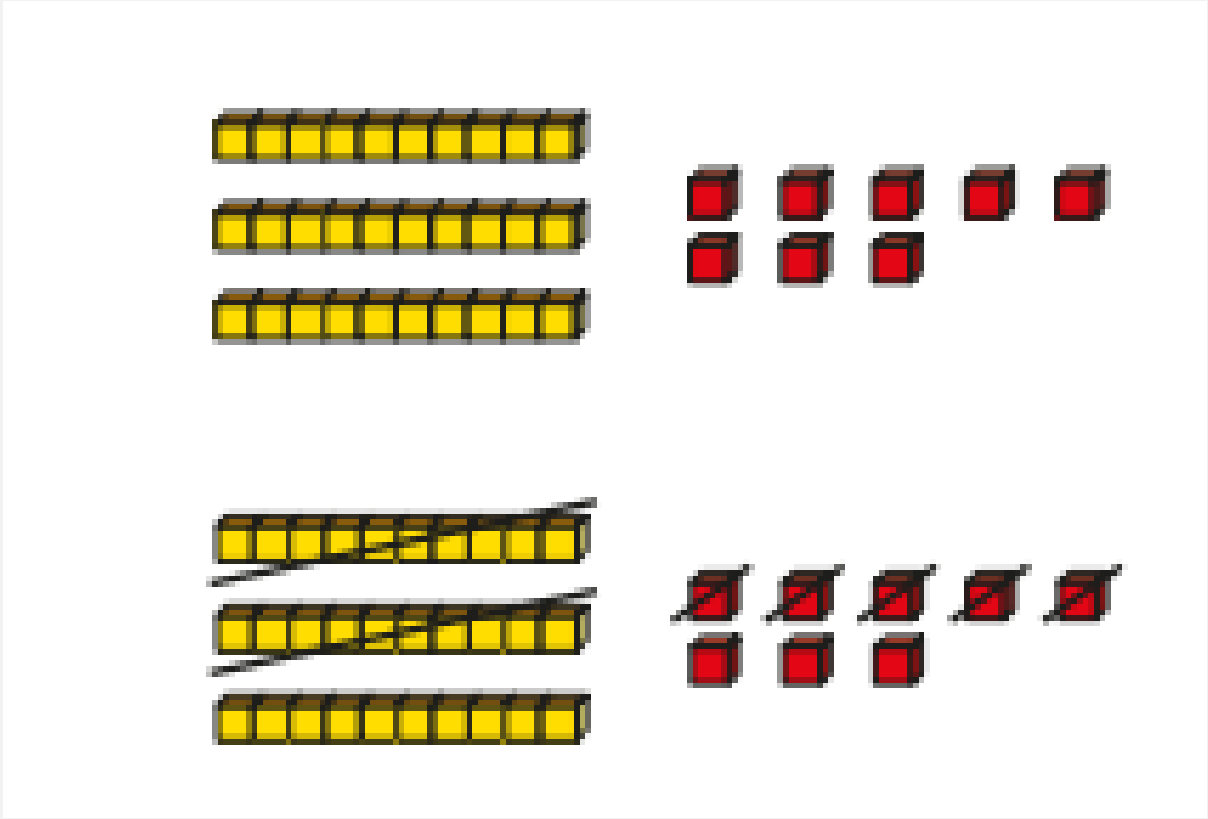
☐ ones + ☐ ones = ☐ ones

☐ ones = ☐ ten + ☐ ones

Add the tens.

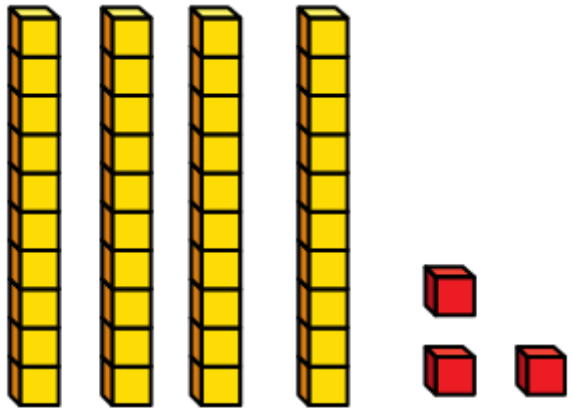
☐ tens + ☐ ten = ☐ tens

SUBTRACTING TWO DIGIT NUMBERS (NOT ACROSS A TEN)

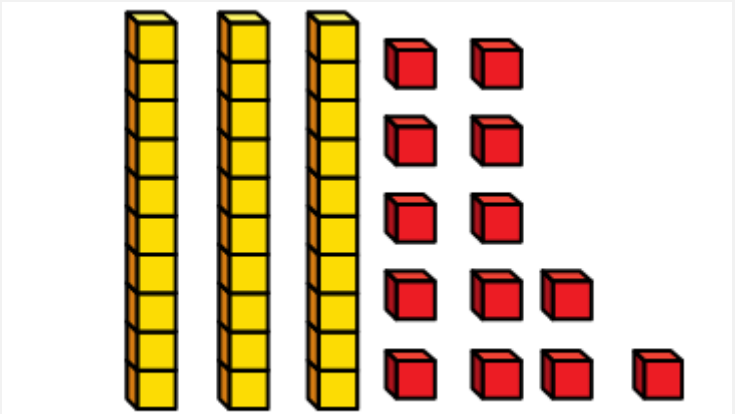


38- 25=

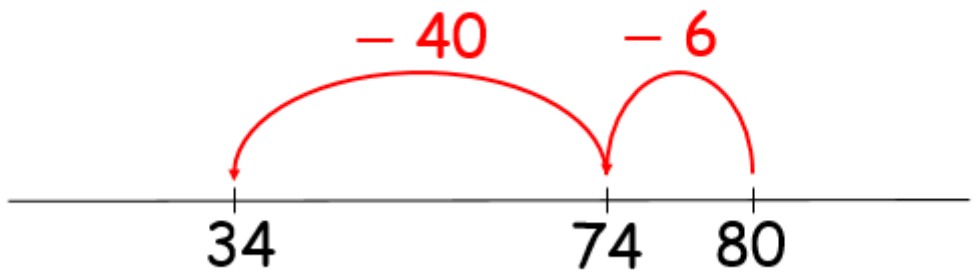
SUBTRACTING TWO DIGIT NUMBERS (ACROSS A TEN)



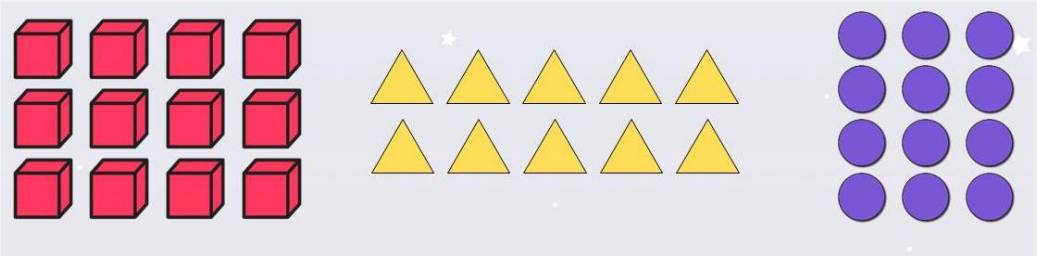
$43 - 16 =$

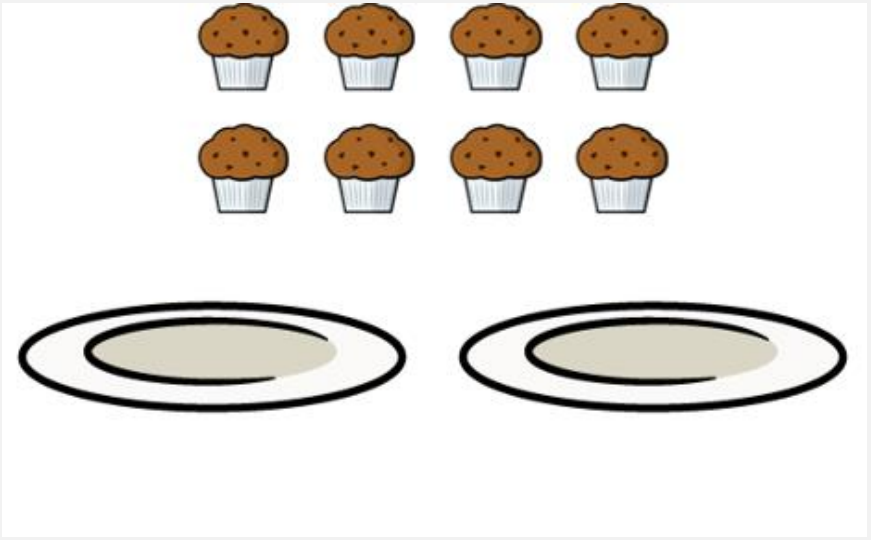


$80 - 46 = 34$



ARRAYS AND SHARING





YEAR 1 PROGRAMME OF STUDY

Number Place Value and Rounding	Addition and Subtraction	Multiplication and Division	Fractions	Measurement	Geometry – properties of shape	Geometry - Position, direction and movement	Statistics
•count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number •count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s •given a number, identify 1 more and 1 less •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 •read and write numbers from 1 to 20 in numerals and words	•read, write and interpret mathematical statements involving addition (+), subtraction (–) and equals (=) signs •represent and use number bonds and related subtraction facts within 20 •add and subtract one-digit and two-digit numbers to 20, including 0 •solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ? – 9	•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	•recognise, find and name a half as 1 of 2 equal parts of an object, shape or quantity •recognise, find and name a quarter as 1 of 4 equal parts of an object, shape or quantity	• compare, describe and solve practical problems for: ○ lengths and heights [for example, long/short, longer/shorter, tall/short, double/half] ○ mass/weight [for example, heavy/light, heavier than, lighter than] ○ capacity and volume [for example, full/empty, more than, less than, half, half full, quarter] ○ time [for example, quicker, slower, earlier, later] • measure and begin to record the following: ○ lengths and heights ○ mass/weight ○ capacity and volume ○ time (hours, minutes, seconds) ○ recognise and know the value of different denominations of coins and notes ○ sequence events in chronological order using language [for example, before and after, next, first, today, yesterday, tomorrow, morning, afternoon and evening] • recognise and use language relating to dates, including days of the week, weeks, months and years • tell the time to the hour and half past the hour and draw the hands on a clock face to show these times	• recognise and name common 2-D and 3-D shapes, including: ○ 2-D shapes [for example, rectangles (including squares), circles and triangles] ○ 3-D shapes [for example, cuboids (including cubes), pyramids and spheres]	•describe position, direction and movement, including whole, half, quarter and three-quarter turns	N/A

YEAR 2 PROGRAMME OF STUDY

Number Place Value and Rounding	Addition and Subtraction	Multiplication and Division	Fractions	Measurement	Geometry – properties of shape	Geometry - Position, direction and movement	Statistics
•count in steps of 2, 3, and 5 from 0, and in 10s from any number, forward and backward •recognise the place value of each digit in a two-digit number (10s, 1s) •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	• solve problems with addition and subtraction: o using concrete objects and pictorial representations, including those involving numbers, quantities and measures o 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, including: o a two-digit number and 1s o a two-digit number and 10s o 2 two-digit numbers o adding 3 one-digit numbers show that addition of 2 numbers can be done in any order (commutative) and subtraction of 1 number from another cannot recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems	•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 2 numbers can be done in any order (commutative) and division of 1 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	• recognise, find, name and write fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{2}{4}$ and $\frac{3}{4}$ of a length, shape, set of objects or quantity • write simple fractions, for example $\frac{1}{2}$ of 6 = 3 and recognise the equivalence $\frac{2}{4}$ of $\frac{1}{2}$	•choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels •compare and order lengths, mass, volume/capacity and record the results using >, < and = •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	•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	•order and arrange combinations of mathematical objects in patterns and sequences •use mathematical vocabulary to describe position, direction and movement, including movement in a straight line and distinguishing between rotation as a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise)	•interpret and construct simple pictograms, tally charts, block diagrams and tables •ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity •ask-and-answer questions about totalling and comparing categorical data

MATHS AT HOME

Each week there will be a homework on Seesaw that links directly to what we have been doing in maths that week. This can help as a guide to what your child has been doing.

Here are some useful links also:

https://whiteroseeducation.com/1-minute-maths

https://www.topmarks.co.uk/maths-games/hit-the-button

https://www.windmill.oxon.sch.uk/page/?title=Maths&pid=175

QUESTIONS

Year 1