Maths Workshop Year 1

Mrs Morris

Agenda

Curriculum

Vocabulary

Planning

How to help at home

Lesson & activity

Introduction

We are here today to help with your understanding of how we teach maths in school, so that you can help support your children at home to become confident and happy mathematicians.

The thinking behind how we teach maths has changed over the years and it has become more about seeing the maths rather than just following rules to complete calculations. Which helps when mistakes are made.

Year 1

Aims

The national curriculum for mathematics aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- can **solve problems** by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Year 1 programme of study

Number - number and place value

Pupils should be taught to:

- 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

Number - addition and subtraction

Pupils should be taught to:

- 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

Number - multiplication and division

Pupils should be taught to:

- 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

Notes and guidance (non-statutory)

Through grouping and sharing small quantities, pupils begin to understand:

- multiplication and division
- doubling numbers and quantities
- finding simple fractions of objects, numbers and quantities

They make connections between arrays, number patterns, and counting in 2s, 5s and 10s.

Number - fractions

Pupils should be taught to:

- 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

Geometry - properties of shapes

Pupils should be taught to:

- 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]

Geometry - position and direction

Pupils should be taught to:

- describe position, direction and movement, including whole, half, quarter and three-quarter turns

Measurement

Pupils should be taught to:

- 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

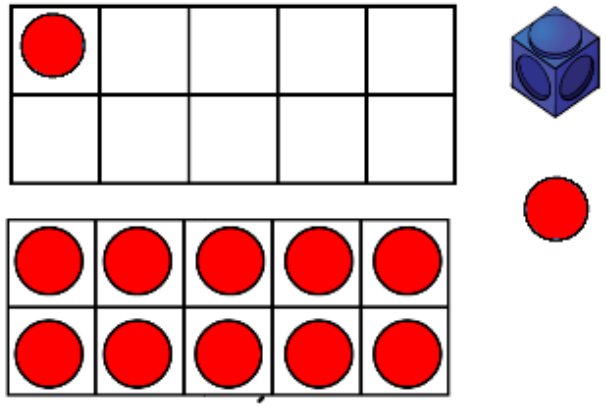
Vocabulary

Place Value

Reception	Year 1
count	sort
subitise	represent
order/ordinal	multiples
compare	partitioning
forwards	ones
backwards	tens
numerals	
digit	
one more	
one less	
equal to	
more than	
less than (fewer)	

Addition and Subtraction

Reception	Year 1
add	addition/add
plus	subtraction
altogether	difference
total	equals
take away /minus	facts
number bonds	problems
part	missing number problems
whole	2-digit number
digit	inverse



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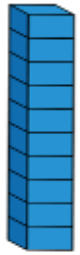
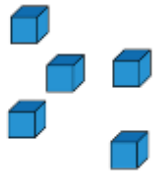
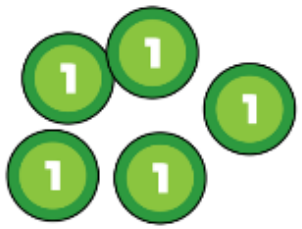
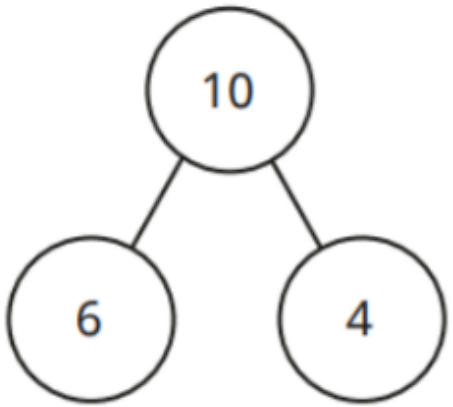
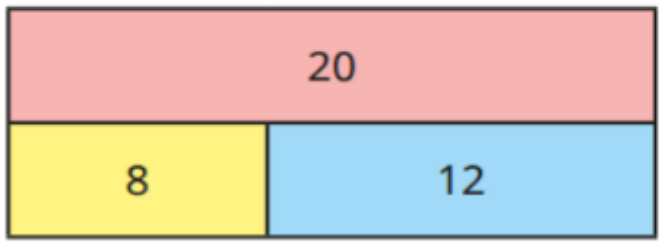
  1	  5

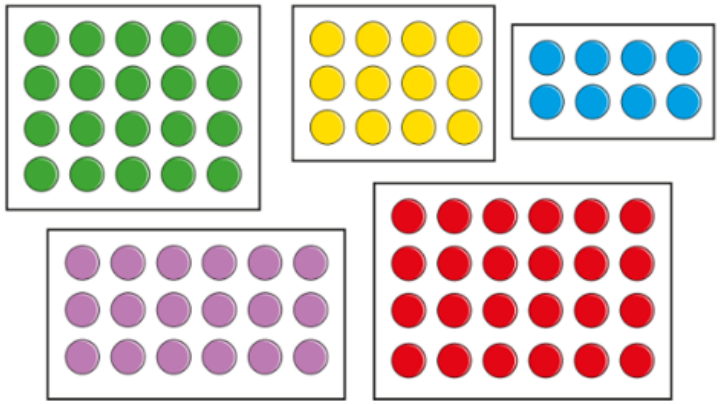




Vocabulary

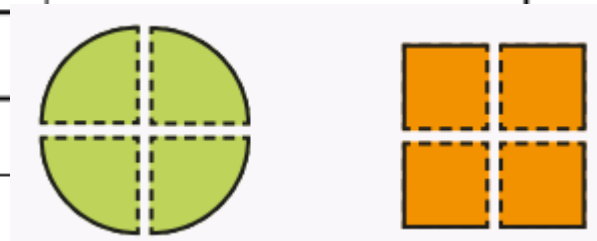
Multiplication and Division

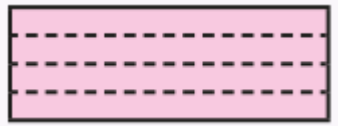
Reception	Year 1
double	multiplication
half	division
twice as many	arrays
equal	
unequal	
share	
group	
odd	
even	

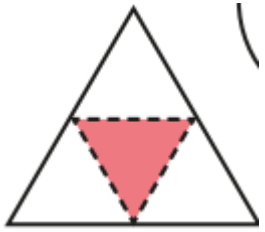


Fractions

Reception	Year 1
	whole
	half
	quarter
	equal parts



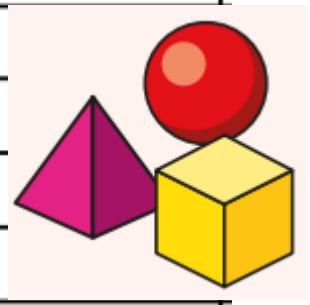




Vocabulary

Geometry – properties of shape

Reception	Year 1
2-d shapes	sides
rectangle	corners
square	properties
circle	pyramids
triangle	faces
characteristics	
3-d shapes	
cuboids	
cubes	
cone	
spheres	
curved	
straight	
flat	



position and direction

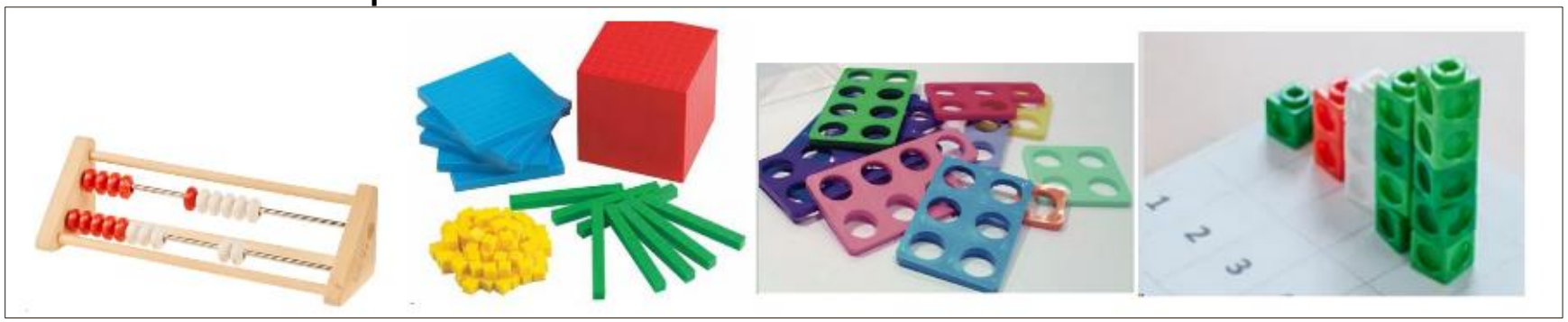
Reception	Year 1
over	position
under	direction
between	movement
around	whole turn
through	quarter turn
on	half turn
into	three-quarter turn
next to	
behind	
beneath	
order	
repeat	
patterns	
on top of	

Planning and lesson design

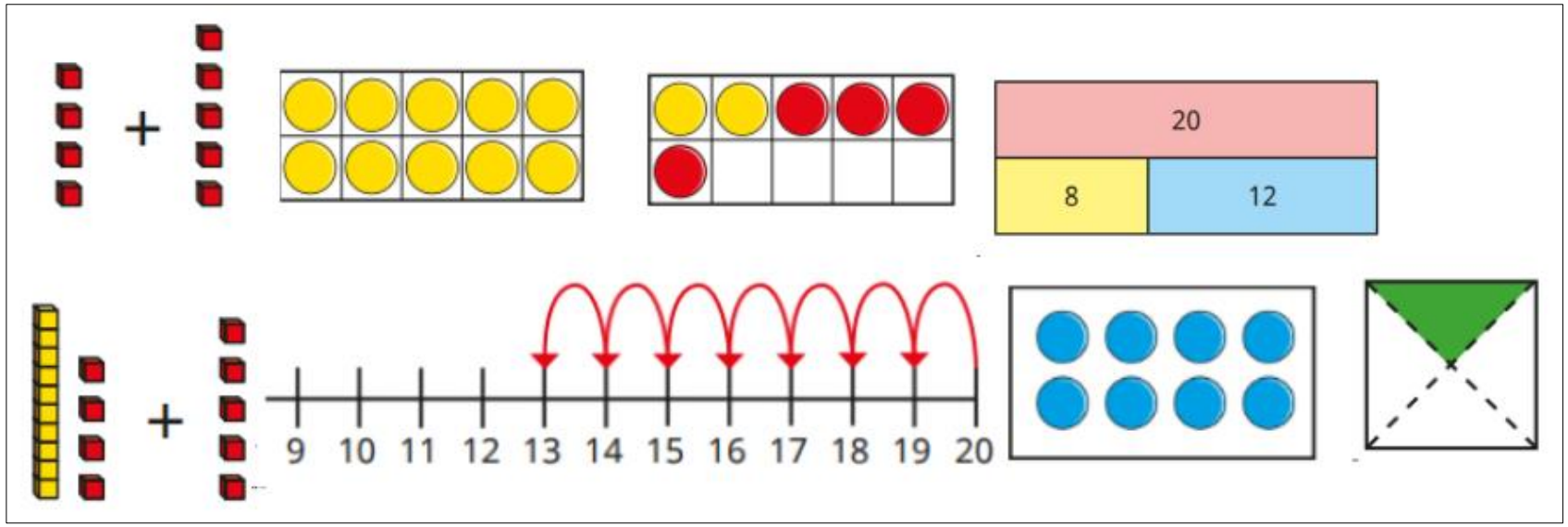
- White Rose – follows small steps from the NC.
- Ping-Pong approach
- Lots of visual and hands on opportunities to develop understanding.
- Lots of opportunities for the children to practice new skills and to make connections and notice patterns.

Concrete, Pictorial, Abstract – CPA approach.

- Concrete – manipulatives.



- Pictorial.

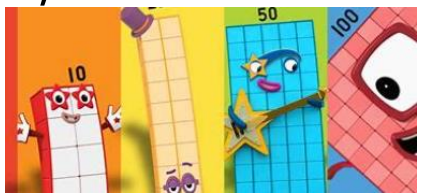


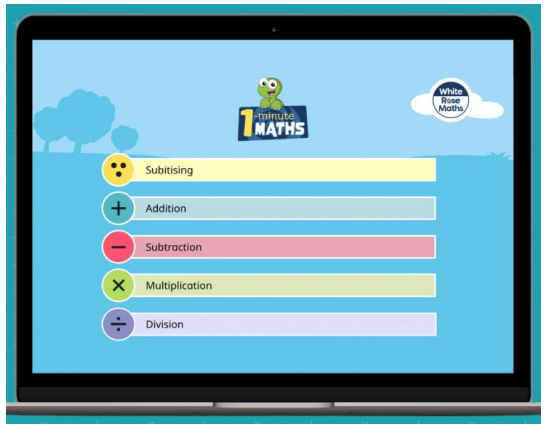
- Abstract.

5 + 6 | 8 + 7 | 5 + 4 | 9 + 8

How to help at home.

- Practise recall of number bonds, especially to 10 and 20.
- Chant/count a new times table e.g 2,4,6 etc…
- Bring maths into everyday life i.e discuss the time together, look at the times on TV guides, pay for things with cash and work out the change, sort your socks into pairs and count them, look at train/bus timetables. Play **board games**.
- Watch Numberblocks on Iplayer.
- Topmarks https://www.topmarks.co.uk/Search.aspx?Subject=16
- White Rose app 1-minute maths app | White Rose Education






The way to get started is to quit talking and begin doing.
Walt Disney