Maths Workshop: Reception, Year 1 and Year 2

Aims:

- To provide you with an understanding of how your child learns maths
- To understand why fluency of basic number facts is so important
- To look at some of the strategies used to support your child in school
- To look at ways you can support your child at home.

Partnerships...

Research Schools Network

National Centre for Excellence in the Teaching of Mathematics

Education Endowment Foundation

MathsHUBS

At our school....

4 NCETM Professional Development Leads

2 Mastery Specialists

3 Maths Specialist Leaders of Education

Care, Aspire, Achieve

Children Aspiring to be the best they can be and all children Achieving to their full potential

2016/17

Maths	Met Expected Standard	106.4	84.7	75
	Greater Depth		32.2	23
Maths progress			3.7	Significantly above average

2017/18

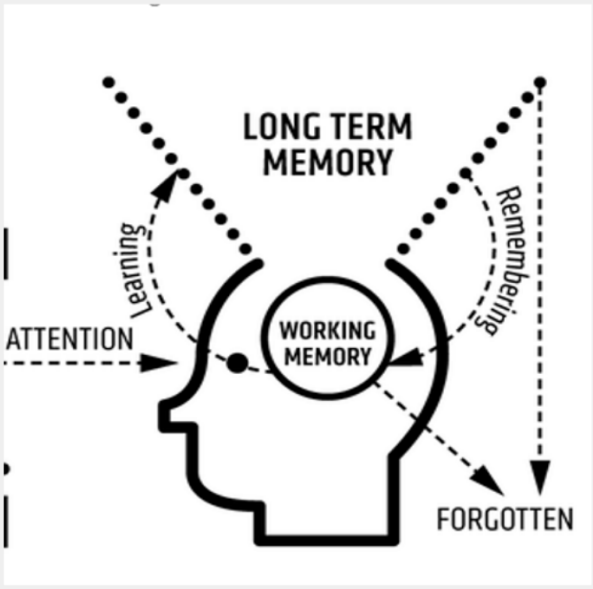
Maths	Met Expected Standard	108	93.2	76
	Greater Depth		37.3	24
Maths progress			4.6	Significantly average

2018/19

Maths	Met Expected Standard	106	89	79 (105 SS)
	Greater Depth		30	27
Maths progress			2.4	Above average

Fluency...why is it important?

To help develop children's fluency in maths, there are key facts that they need to be able to recall fluently (quickly and accurately).



Our working memory is a temporary holding space where we manipulate and process information. Limited space

Long term memory is the ability to both store and recall information forlater use. For example, the ease we have in spelling our first name

Fluency is the key barrier to children achieving!

Key concepts from Reception to Year 2 we will be looking at today...

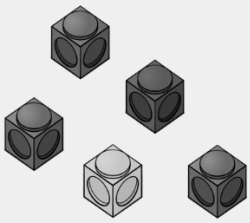
- Counting
- Number Bonds
- Addition and Sutraction
- Multiplication and Division

Strategies,models and representations we will use:

Tens Frames Number Lines
Partitioning

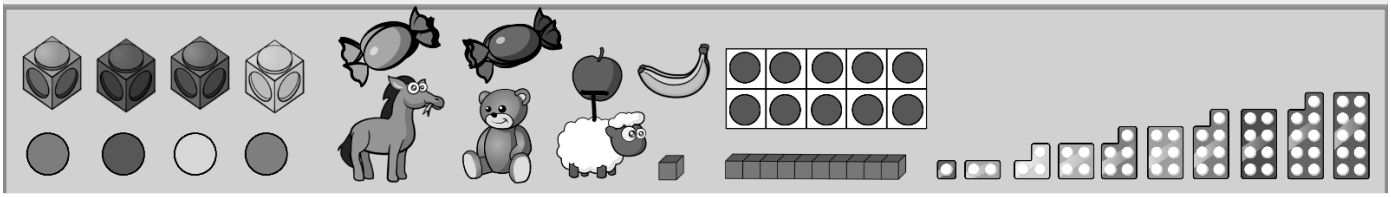
Counting

Counting and understanding numbers to 5, then 10, then 20



1 2 3 4 5

1:1 correspondence



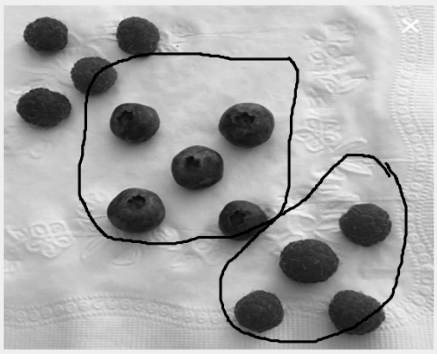
Subitising

Subitising is the ability to instantaneously recognise the number of objects in a small group without the need to count them.

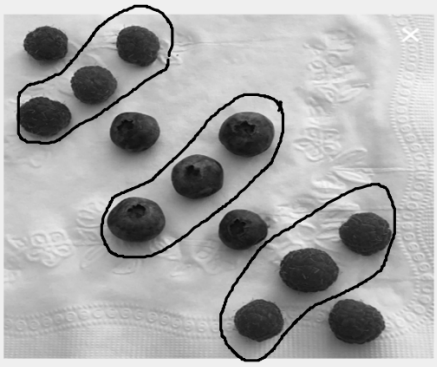
Number Talk

Can you subitise?

What numbers can you see?



I can see 5 and 4

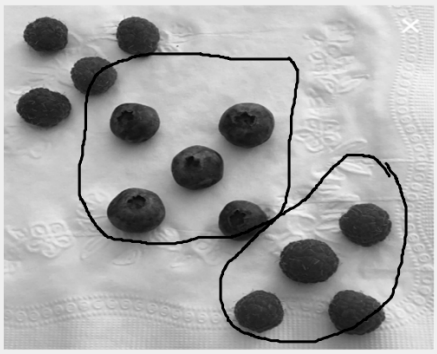


I can see 3 and 3 and 3

Number Talk

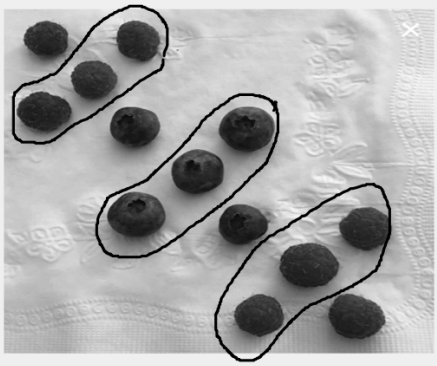
Can we write a number sentence?

5 + 4 = 9



I can see 5 and 4

3 + 3 + 3 = 9



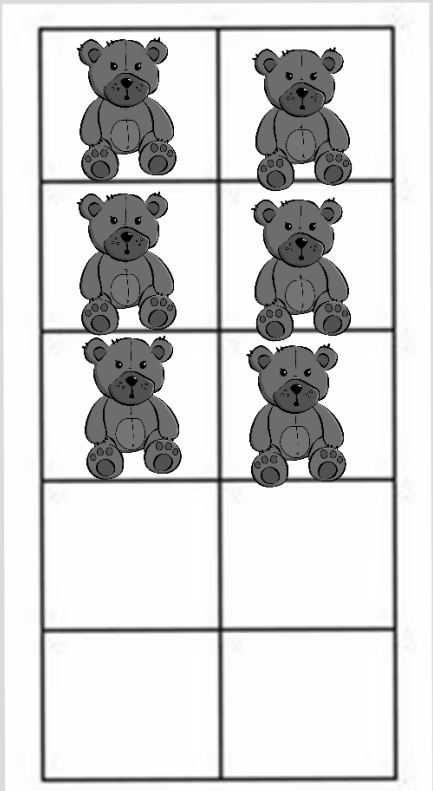
I can see 3 and 3 and 3

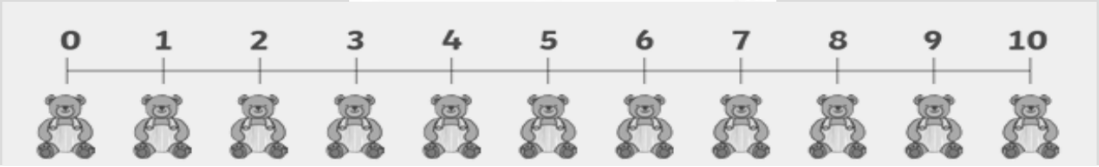
Also adresses the common misconception that only
2 numbers add to make a whole number

How many bears do we have in our 10 frame? Explain
Can you prove it?

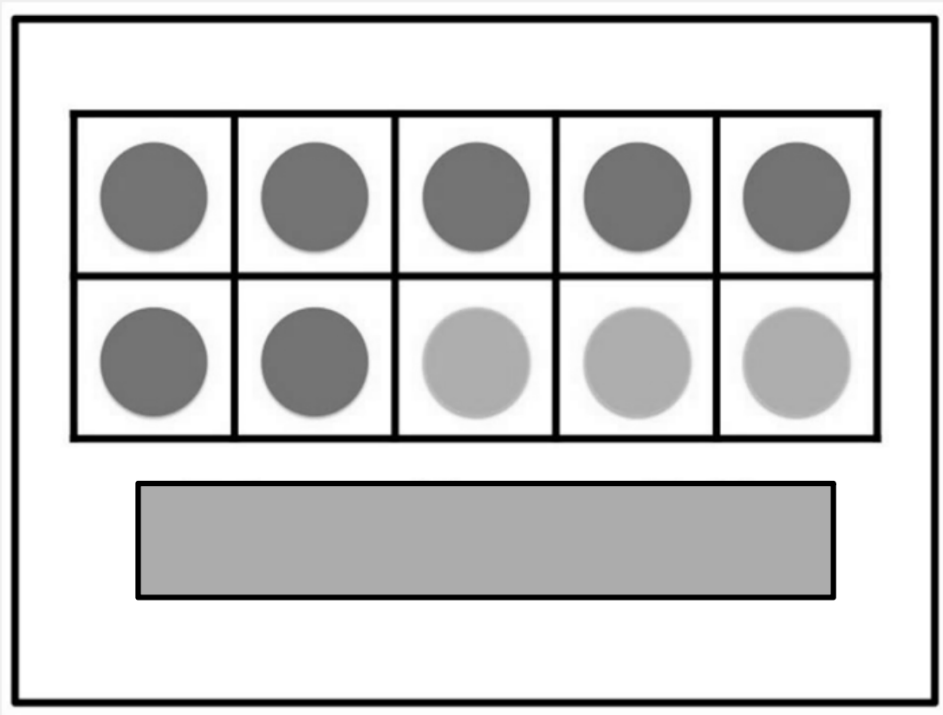
How many more do we need to fill our 10 frame? Explain
Can you prove it?

Can you find the correct numeral to match the bears?





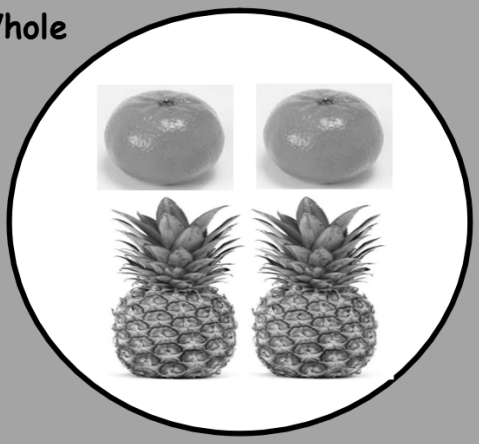
Can you subitise the blue and green counters?
How do you know?



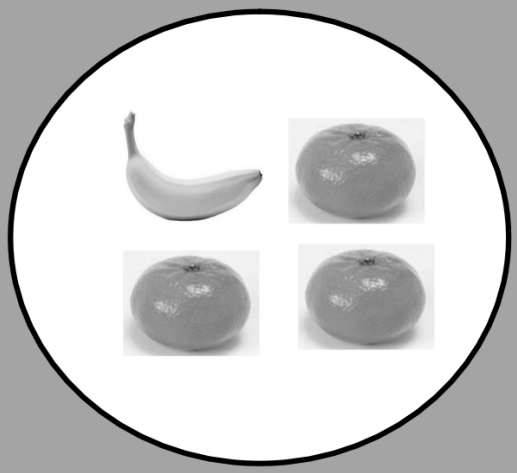
Is this number sentence correct?
Explain

Maths L.O - To find the total number of items in 2 groups

Part Part Whole



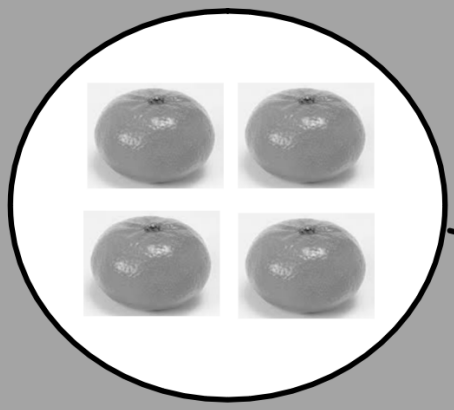
Can you subitise? How many?
Prove it!



Can we write a number sentence?

Maths L.O - To find the total number of items in 2 groups

How can we work out what the other part is?



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What can we do to check this?

Number Bonds and Basic Number Facts

Number Bonds

(Pairs of numbers that make up a given number)

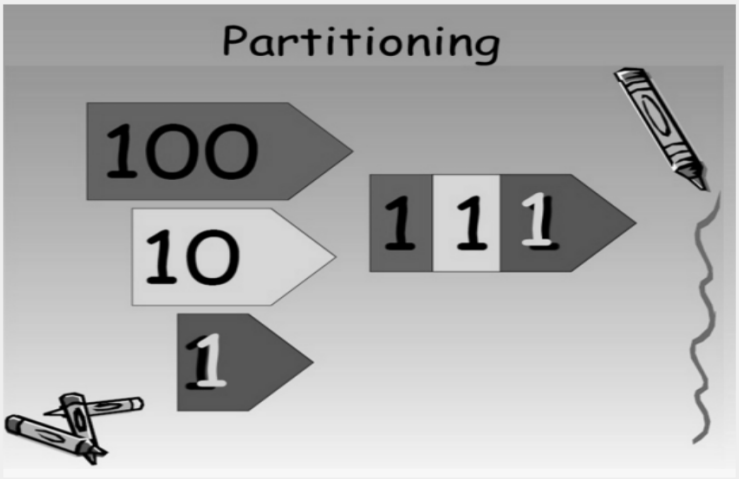
1 + 7= 8
2 + 6 = 8
3 + 5 = 8
4 + 4 = 8
3 + 5 = 8
2 + 6 = 8
1 + 7 = 8

Basic Number Facts

(Basic addition, subtraction, multiplication and division calculations that children should learn to recall instantly with no working out)

9 + 6 = 15
15 - 6 = 9
8 + 8 = 16
12 + 2 = 14
14 - 2 = 12
8 + 4 = 12
12 + 4 = 8

By the end of Year 2, children should be able to recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100.



Partitioning is when we break a number into smaller parts

H	T	O
3	5	7

300 + 50 + 7 =

In Year 2...

37 + 56 =

_____

Subtraction

Subtraction is the inverse (opposite) of addition and the same processes as addition can be used:

- Counting back
- Partitioning
- Knowing number bonds and addition facts

14 - 8 =

8 + ___ = 14

_____

Multiplication

- Year 1 counting in 2s, 5s, 10s
- Year 2 first count in 2s, 5s, 10s then learn the facts

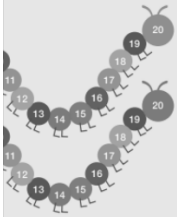
Deriving facts	Knowing facts
I know 2 x 5 = 10	3 x 5 = 15
so... 3 x 5 = 15	15 divided by 5 = 3

Supporting at home...

Playing games

Noticing and talking about numbers

Using puppets and toys



Example activity: Caterpillar game

In this whole-class activity, the teacher projects the slide on the board and the class plays as two teams racing to reach the end of the caterpillar. Each team throws the dice and pupils work out where their mark will be by counting on from where the marker is. In order to finish and win the game, the team must end exactly on the last square, requiring them to anticipate what number they need to finish and compare this with the number thrown.

Story Mode
Challenge Mode

Automatic training mode
Gigs
Battles

Key messages...

Be positive about maths

Talk to your child about numbers and maths

Give lots of praise and encouragement

Help your child to recall basic facts fluently!