KS1 Maths Workshop

November 2023

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- National Curriculum aims
- Structure of a lesson
- Fluency: arithmetic, prior learning, automaticity and TT Rockstars (Year 2 only)
- Supporting your children with their learning

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National Curriculum

Number and place value

Statutory requirements

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 twos, fives and tens
- given a number, identify one more and one 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.

Statutory requirements

Pupils should be taught to:

- 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.

National Curriculum

Addition and subtraction

Statutory requirements

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 zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as 7 = ☐ – 9.

Statutory requirements

Pupils should be taught to:

- 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, including:
  - a two-digit number and ones
  - a two-digit number and tens
  - two two-digit numbers
  - adding three one-digit numbers
- 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.

National Curriculum

Multiplication and division

Statutory requirements

Pupils should be taught to:

- 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.

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Lesson Structure

- Counting and subitising
- Fluency: arithmetic, prior learning, automaticity and TT Rockstars (Year 2 only)
- Teaching input
- Independent and supported activities (ways in)
- Challenge
- Brain stretcher activity
- More automaticity!

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Counting

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Arithmetic

- 5 minutes, quick calculations to apply their prior learning

Complete the number sentences.

13 + ___ = 20

18 + ___ = 20

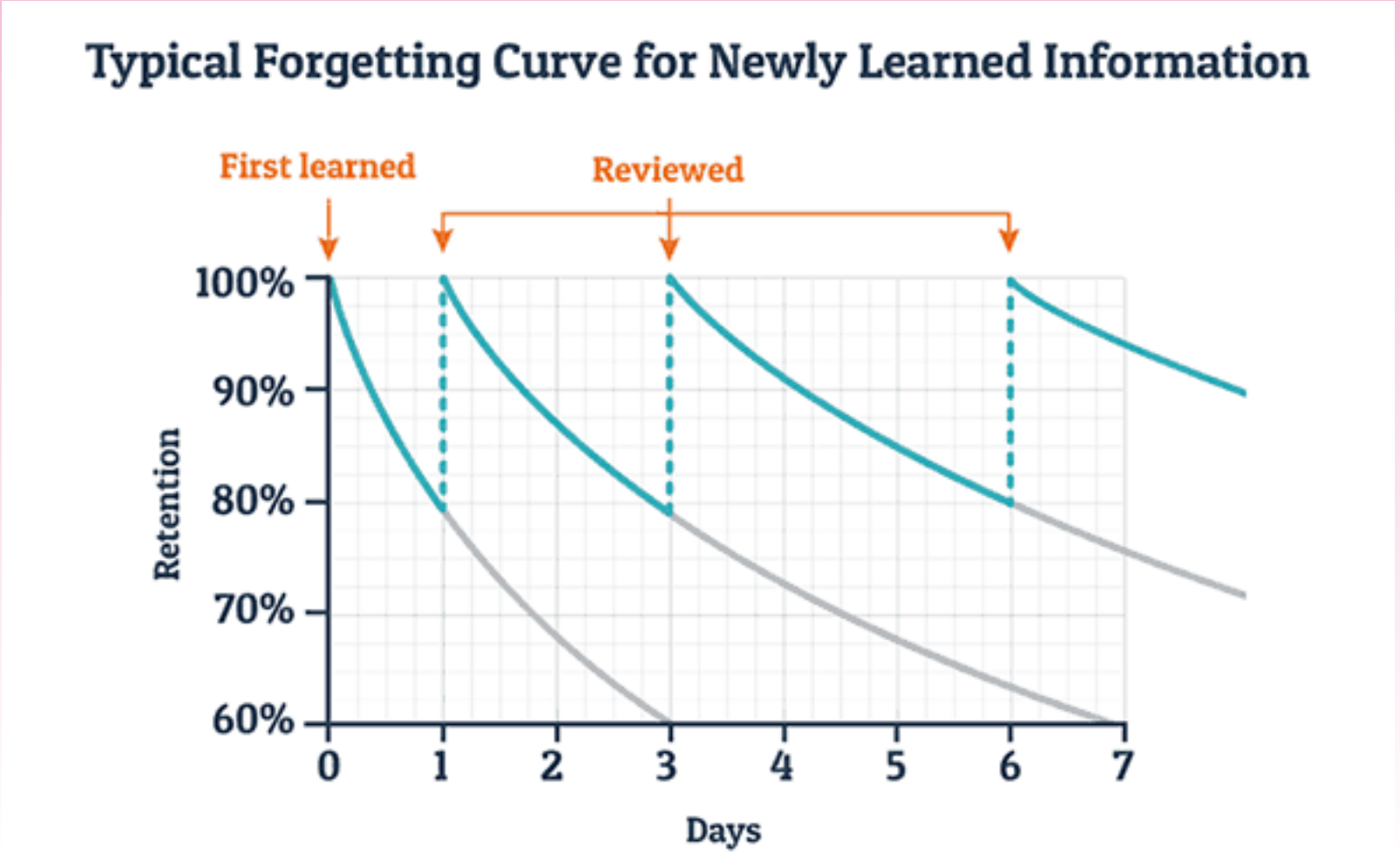
2 + ___ = 20

___ + 7 = 20

___ + 5 = 20

___ + 15 = 20

Prior Learning



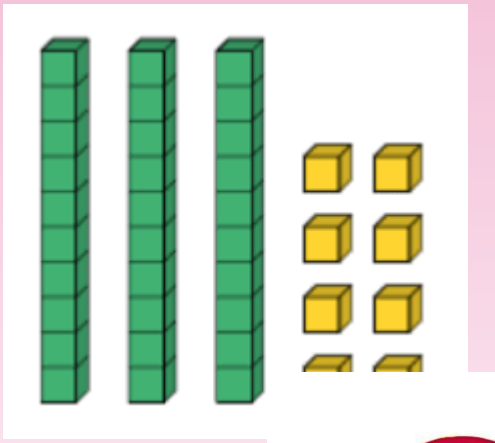
Automaticity

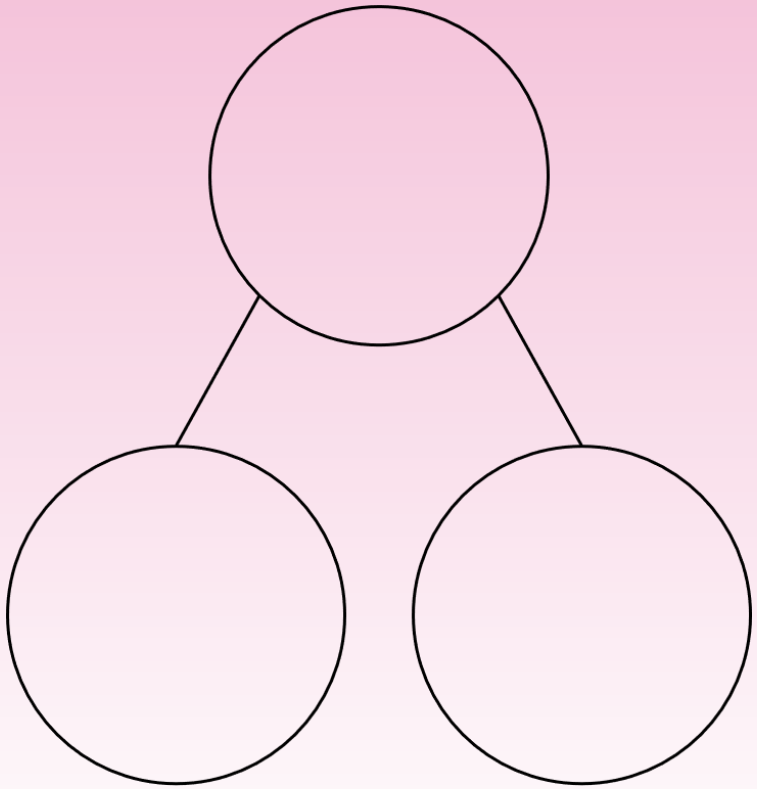
Automaticity	
Year 1	Year 2
• Know one more and one less of numbers up to 20 • Read and write numbers to 100 in numerals • Subitise (recognise quantities without counting) up to 10 • Know number bonds to 10 (including subtraction facts) • Count in multiples of twos, fives and tens from 0 • Know odd and even numbers up to 10 • Know double facts up to 10 Know the days of the week in order • Recognise and name common 2D shapes including: rectangles (including squares) circles and triangles • Recognise and name common 3D shapes including cuboids (including cubes), pyramids and spheres	• Know one more and one less of numbers up to 100 • Read and write numbers to at least 100 in numerals Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward • Know double and halving facts up to 20 • Know odd and even numbers up to 20 Know that half is one of two equal parts • Know that quarter is one of four equal parts • Know that half is one of two equal parts • Know that quarter is one of four equal parts • Know the number of minutes in an hour and the number of hours in a day

Let's do some maths!

Concrete Pictorial Abstract

Place Value





32 ☐ 24

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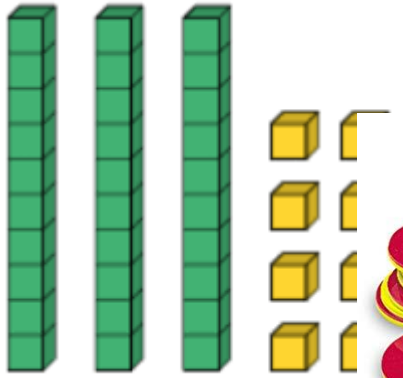
Addition

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
						77	78	79	80
						87	88	89	90
						97	98	99	100



T	O
III	✖ ✖ ✖
I	✖

T	O
III	✖ ✖ ✖ ✖ ✖ ✖
I	✖ ✖ ✖ ✖ ✖

T	O
4	6
+ 3	2
7	8

T	O
4	8
+ 3	4
8	2
1	

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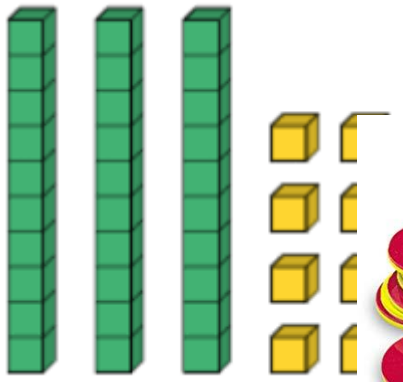
Subtraction

1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
						77	78	79	80
						87	88	89	90
						97	98	99	100



T	O
2	3

T	O
1	8

$$\begin{array}{r} 57 \\ -\ 24 \\ \hline 33 \\ \hline \end{array}$$

$$\begin{array}{r} {}^{4}\cancel{5}{}^{1}5 \\ -\ 27 \\ \hline 28 \\ \hline \end{array}$$

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Multiplication

X X X X X

X X X X X

X X X X X

5 x 3 =

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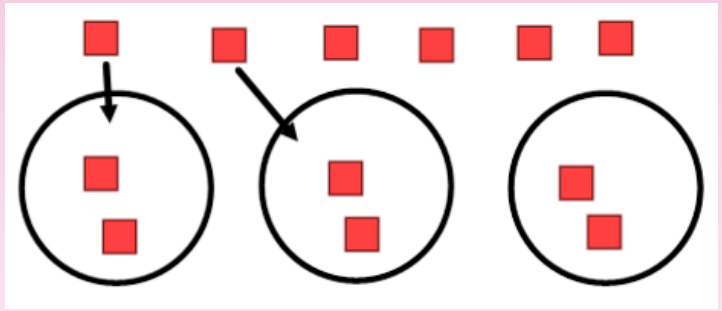
Division

Sharing objects/cubes

$6 \div 3 = 2$

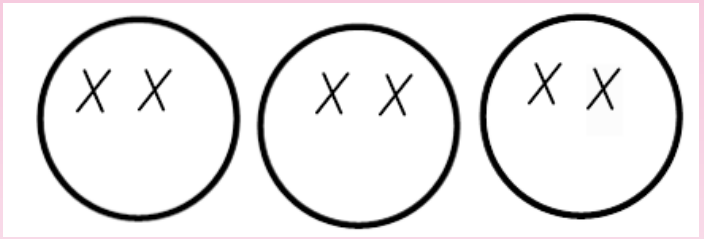
Share 6 between 3 groups



Sharing –draw crosses

Share 6 crosses between 3 circles

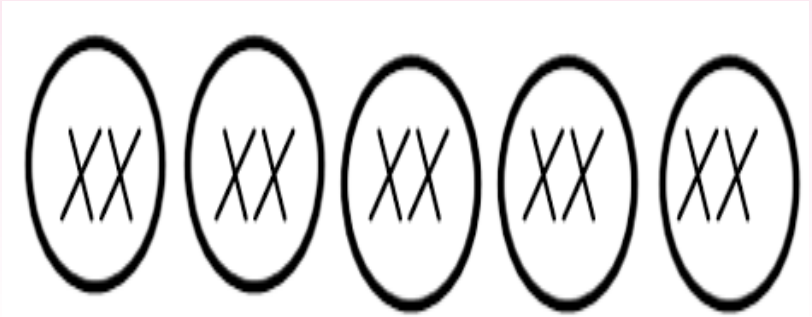
$6 \div 3 = 2$



Grouping – draw crosses

10 crosses grouped in 2s

$10 \div 2 = 5$



$20 \div 5 =$

Fractions

Year 1:

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

Year 2:

- Recognise, find, name and write fractions of a length, shape, set of objects or quantity
- Write simple fractions for example, ½ of 6 = 3 and recognise the equivalence of.

Ways to help at home.....

- Counting
- Automaticity
- Maths talk
- Homework
- Real life maths

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Thank you for coming