Year 2 Calculation Policy

- Addition –Strategies
- Addition – Resources and Vocabulary
- Subtraction –Strategies
- Subtraction – Resources and Vocabulary
- Multiplication –Strategies
- Multiplication – Resources and Vocabulary
- Division –Strategies
- Division – Resources and Vocabulary

Alderman Richard Hallam Primary School

Addition – Mental Strategies and Jottings

- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100

Children should be fluent with their number facts to 20 and use these facts to help solve addition and subtraction problems mentally up to 100.

- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:
- A two-digit number and ones

Counting on one more, 41, 42, 43…

- A two-digit number and tens

Counting on ten more, 45,55,65…

- Two two-digit numbers

Children should start to partition numbers to mentally add tens and units. For example 21+14= 20+10=30, 1+4=5, 30+5=35.

- Adding three one-digit numbers.

Children should be mentally be able to add three one-digit numbers. For example 6+7+3= 16.

- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.

You can add 25+17= and 17+25= and still get the same answer of 42. However if you subtract25-17= your answer will be different to 17-25=.

Addition – Written Strategies

- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:

Two two-digit numbers

Children can you partition numbers into tens and units.

53 + 44 =

50 + 3 + 40 + 4 =

50+40 + 3 + 4 =

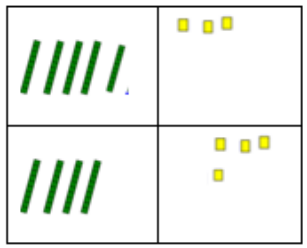
90 + 7 = *97*

Alongside recording:

50 + 3

40 + 4

90 + 7



- Recognise and use the and subtraction and use this to check calculations and solve missing number problems.

47 + 9 = □; □ + 30 = 45; 36 = □ + 12; 9 + □ + 5 = 16

What could the numbers be? What couldn't they be?

See link below for worked example video:

https://www.youtube.com/watch?v=9FatBv6xYFs

Addition – Vocabulary and Resources

Resources:

- Counting beads
- Cubes
- Counting bears
- Numicon
- Number lines
- 100 Square
- Base 10
- Place value counters

Vocabulary:

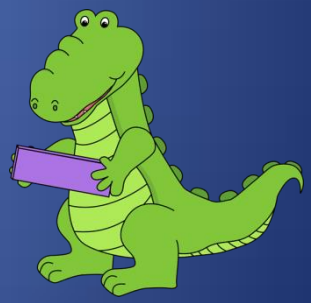
- Altogether
- Sum
- Double
- And
- Add
- Plus
- More than
- Total

Subtraction – Mental strategies and jottings

Children should be able to use concrete objects and pictorial representations to solve subtraction problems.

Counting back from any given number

Children should be able to recall a number from 1-100 and start to count back.



Mental recall- subtraction facts

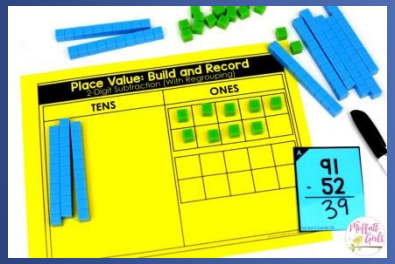
Children should be able to recall subtraction facts such as: 10-4=6 or 100-40=60.

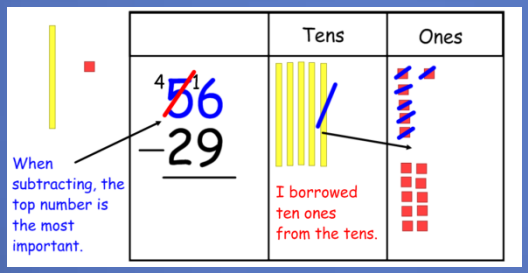
Subtraction – Written strategies

- Add and subtract numbers using concrete objects, pictorial representations, and mentally, including:

Two two-digit numbers

Children can you partition numbers into tens and units.





Alongside recording, e.g.

92-51

= (90 + 2) – (50 + 1)

90 + 2

- 50 + 1

40 + 1 = 41

See the below link for a worked example video:

https://www.youtube.com/watch?v=8p1f29q_12s

Subtraction – Vocabulary and Resources

Resources:

- Counting beads
- Cubes
- Counting bears
- Numicon
- Number lines
- 100 Square
- Base 10
- Place value counters

Vocabulary:

- Subtract
- Take away
- Less than
- Difference
- Left over
- Minus
- Decrease
- Leave
- Fewer
- Sum

Multiplication – Mental strategies and jottings

Counting on using 2's, 5's and 10's linking this to repeated groups or jumps

Counting back from given numbers in 2s, 5s and 10s and linking this to jumping back in repeated groups of, multiplication, and recognising groups in patterns: 5, 10, 15, 20… or 38, 36, 34, 32…

Children should be able to connect the 10 multiplication table to place value.

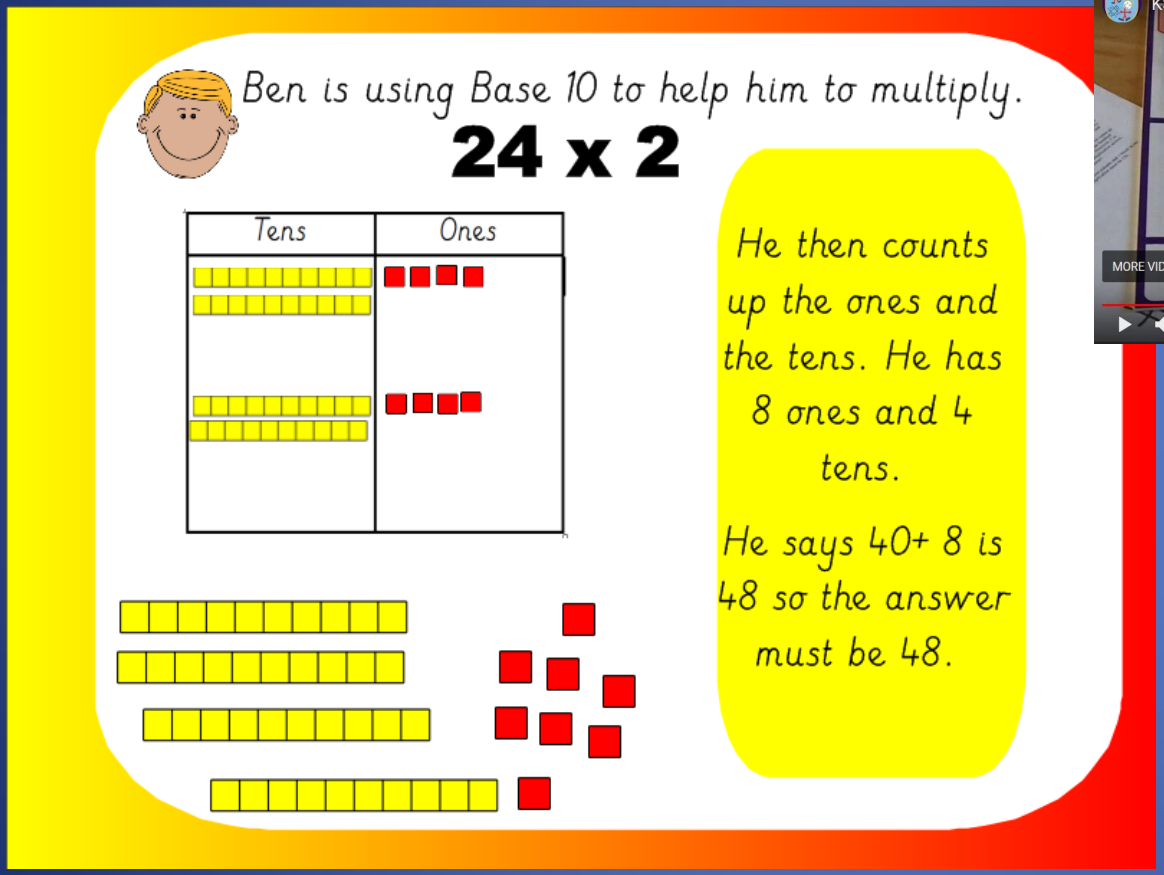
Children should be using their knowledge of times tables to answer one step problems using x and =

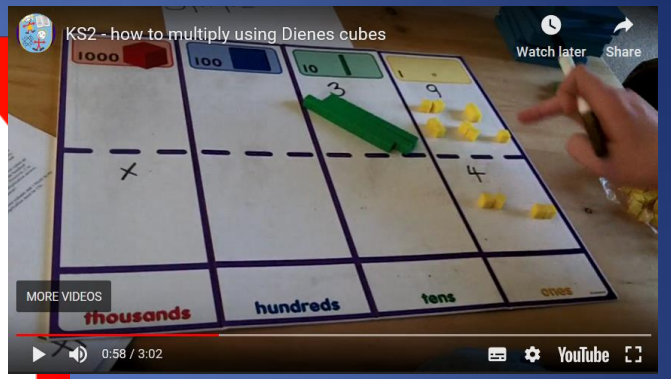
2x2=4

Children should be able to understand that the multiplication of numbers can be done in any order.

One step and two step problems by having a true understanding of 'equals'.
Children should be able to make links between calculations and known key facts 3 x 5= 15 ÷ 3

Multiplication – Written strategies





Use a grid with hundreds, tens and units and place value counters to work out a multiplication sum.

Multiplication – Vocabulary and Resources

Resources:

- Counting beads
- Cubes
- Counting bears
- Numicon
- Number lines
- 100 Square
- Base 10
- Place value counters

Vocabulary:

- Multiply
- Multiplication
- Times table
- Lots of
- Groups of
- Repeated addition

Division – Mental strategies and jottings

Counting on using 2's, 5's and 10's linking this to repeated groups or jumps

Counting back from given numbers in 2s, 5s and 10s and linking this to jumping back in repeated groups of, multiplication, and recognising groups in patterns: 5, 10, 15, 20… or 38, 36, 34, 32…

Children should be able to read division statements using ÷ and =

e.g 8÷ 2 = 4

Children should be able to read missing number problems.

e.g. □÷ 2 = 4, 8 ÷ □= 4, 3 = 6 ÷ □, 16 ÷ □= 8 What could the numbers be? What couldn't they be?

Division times tables

Children should be able to use times tables to help them divide. They should also use the five times tables when reading a clock face.

Children should be able to understand that an answer can change if the order of numbers is changed when completing a division sign. The can only divide numbers in one way.

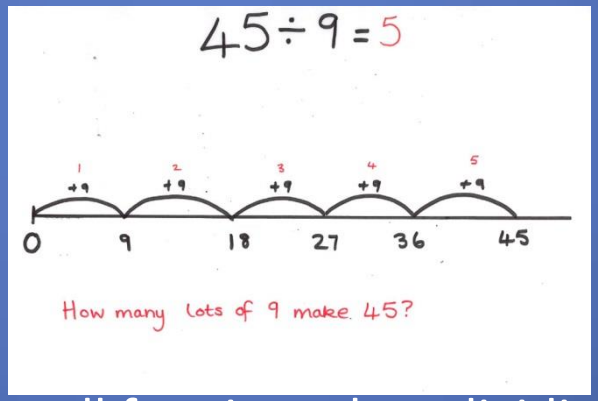
10 ***÷ 2= 5, 2 ÷ 10= is not the same.***

Division – Written strategies

Children should be using their knowledge of counting in 2's, 5's and 10's to group numbers when dividing.

e.g 12 children get into teams of 4 to play a game. How many teams are there?

This can be done through arrays or using a number line



Children should be able to recall fraction when dividing and make the links between finding a fraction of objects , a number or a shape.

Division – Vocabulary and Resources

Resources:

- Counting beads
- Cubes
- Counting bears
- Numicon
- Number lines
- 100 Square
- Base 10
- Place value counters

Vocabulary:

- Divide
- Sharing
- Grouping
- Groups of
- Halve
- Share equally