Year 2 mathematics. *What you need to know.*

Number and Place Value

- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backwards.
- Compare and order numbers from 0 up to 100; use and = signs.

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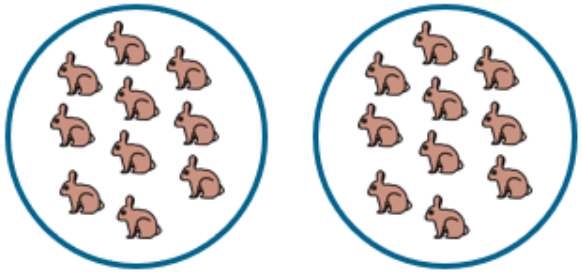
- Read and write numbers to at least 100 in numerals and in words.
- Recognise the place value of each digit t in a two-digit number. (tens, ones).
- Using concrete and pictorial representations encouraging children to say what they see and link it to mathematical thinking.



10s	1s
2	7

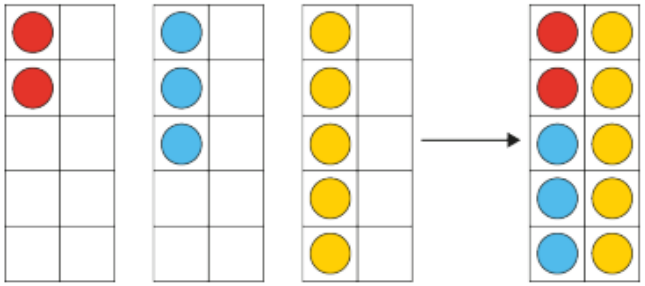
- *Say what you see! How are the rabbits arranged?*
- *Do you think all the groups have ten rabbits in them?*
- *How many rabbits are not in a group of ten?*
- *Let's put the total number of rabbits in the place value chart.*
- *Why do we write 2 in the tens column? Why do we write 7 in the ones column?*

Addition and Subtraction

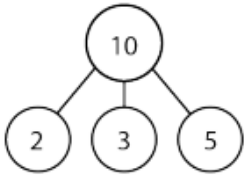
- Recall and use addition and subtraction facts to 20 fluently.

'Madison has two red marbles, Charlie has three blue marbles and Asif has five yellow marbles. They have ten marbles altogether.'

Tens frames:



Part–part–part–whole representation:



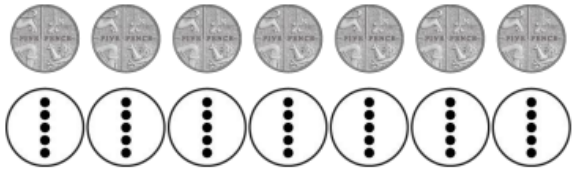
- Use related facts up to 100.

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

Measurement

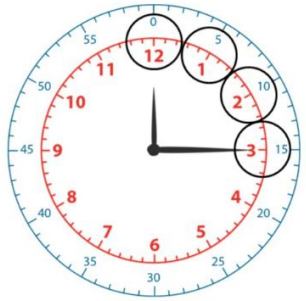
- Choose and use appropriate standard units to estimate and measure length/height in any direction (m/cm); mass (kg/g); temperature (°C); capacity (litres/ml) to the nearest appropriate unit, using rulers, scales, thermometers and measuring vessels. Recognise and use symbols for pounds (£) and pence (p); combine amounts to make a particular value.
- Find different combinations of coins that equal the same amounts of money.

Finding the value of a set of 5 p coins – coins and pre-money tokens:



- *'One five-pennies, two five-pennies, three five-pennies…'*
- *'Five p, ten p, fifteen p…'*
- *'There are seven coins.'*
- *'Each coin has a value of five p.'*
- *'This is thirty-five p.'*

- 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.

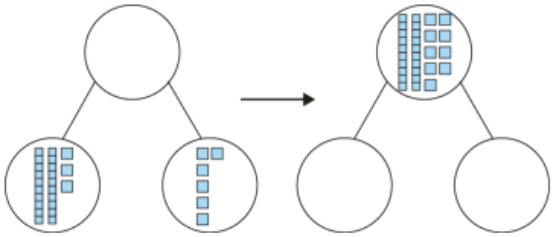
How can you help?

• At home you could help your child by chanting, signing number-based rhymes. Numberblocks have lots of wonderful songs that you can share with your child.

Numberblock (1-10):

• Practice counting from any number, forwards and backwards. • Count objects and ask questions such as, how many if I have one more/less or ten more/less. • Point out numbers when you see them and help your child read them.

'Dana walked for twenty-three minutes to get to her friend's house, and then walked for another six minutes to get to school. Her journey took twenty-nine minutes altogether.'



$23 + 6 = 29$

- *'What does the 23 represent?'*
- *'What does the 6 represent?'*
- *'What does the 29 represent?'*

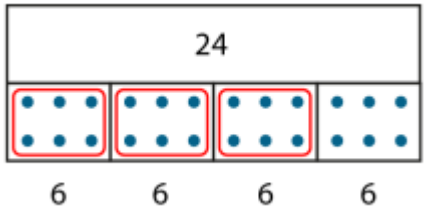
two-digit number and tens, two two-digit numbers, adding three one-digit numbers.

- Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot.
- Solve problems with addition and subtraction: using concrete objects and pictorial representations, including those involving numbers, quantities and measures.

Fractions

- Pupils should count in fractions up to 10, starting from any number and using the1/2 and 2/4 equivalence on a number line.
- Recognise, find, name and write fractions 1/3, ¼, 2/4 and ¾ of a length, shape, set of objects or quantity.

Using cubes to calculate $\frac{2}{4}$ of 36:



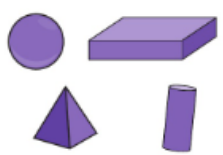
Multiplication and Division

- Count in steps of 2, 3, and 5 from 0, and in tens from any number, forward or backward. (copied from Number and Place Value).
- Recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables, including recognising odd and even numbers.
- Show that multiplication of two numbers can be done in any order (commutative) and division of one number by another cannot.

Geometry

Shape

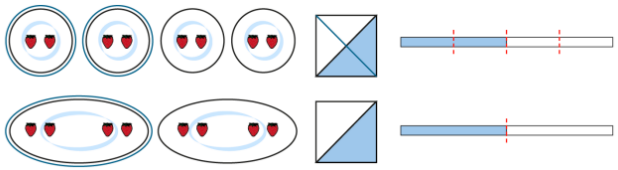
- Identify and describe the properties of 2- D shapes, including the number of sides and line symmetry in a vertical line.
- Identify and describe the properties of 3- D shapes, including the number of edges, vertices and faces.
- Compare and sort common 2- D and 3-D shapes and everyday objects.



Position and Direction

- Use mathematical vocabulary to describe position, direction and movement including movement in a straight line and distinguishing between rotation as

- Write simple fractions e.g. ½ of 6 = 3 and recognise the equivalence of 2/4 and ½ .



Mastering Number

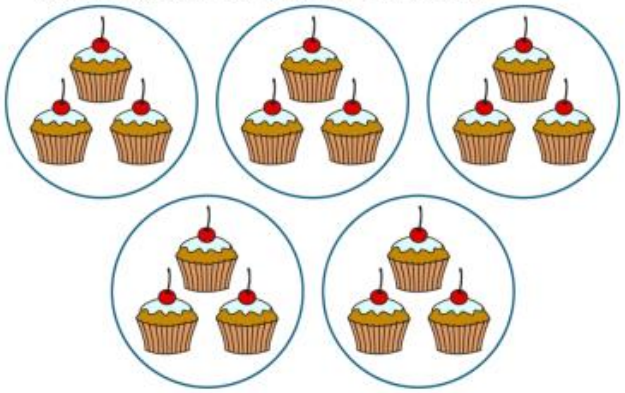
Newington Green is working with the Maths Hub to provide a mastering number programme. It aims to secure firm foundations in the development of good number sense for all children from Reception through to Year 1 and Year 2. The aim over time is that children will leave KS1 with fluency in calculation and a confidence and flexibility with number.

Ways to help your child at home

- Learn all the doubles to 20 + 20 and the related halves (half of 40 is 20).
- Help them to have rapid recall of the two, three, five and ten times tables.
- Practise the number bonds to 10 and 100 and the related subtraction facts.

Describing equal groups – example 2:

- *'How many equal groups are there?'*
- *'How many cakes are there in each group?'*



- *'There are five equal groups of cakes.'*
- *'There are three cakes in each group.'*
- *'There are five groups of three.'*

- Solve problems involving multiplication and division, using materials, arrays, repeated addition, mental methods, and multiplication and division facts, including problems in contexts

a turn and in terms of right angles for quarter, half and three-quarter turns (clockwise and anti-clockwise).

- Order and arrange combinations of mathematical objects in patterns and sequences.

Describe how the heart shape turns to make the pattern.

A Half turn

C Whole turn

B Quarter turn anticlockwise

D Quarter turn clockwise

Statistics

- Interpret and construct simple pictograms, tally charts, block diagrams and simple tables.

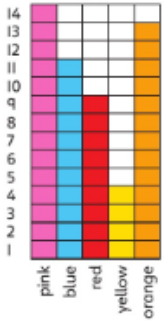
Which statement is true?

A There are 6 red tractors.

B There are 7 more blue tractors than yellow tractors.

C There are double the amount of orange tractors than yellow tractors.

D There are 8 blue tractors.



- Ask and answer simple questions by counting the number of objects in each category and sorting the categories by quantity.