Progression of skills
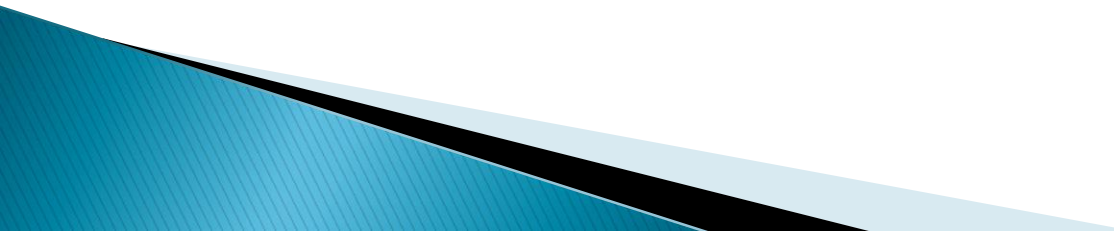## Addition and Subtraction

How do we teach Mathematics at St Catherine's?

- White Rose Maths

- Follow a CPA approach

- Children engaging in appropriate, cognitively-challenging activities – practical and experiential learning activities.

- A culture that supports children's curiosity, thinking and problem solving

- Modelling/ guided and independent practice My turn your turn/ I do, we do, you do approach.

- Flashback 4 – Starter activities encourage children to know more and remember more- Recap of learning yesterday, last week, last topic, last half term.- Making links

- Vocabulary/ full sentence answers- embodies and communicates concepts, emphasis on key vocabulary.

What is Place Value?

- Place value is the value of each digit in a number. Eg:

350- the 5 represents 5 tens, or 50.
5,006- the five represents thousands or 5,000.

- It is important that children understand that whilst a digit can be the same, its value depends on where it is in the number.

- Place value is one of the most important areas of the primary maths curriculum.

Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones

How to use a place value chart:
1,708
27,085
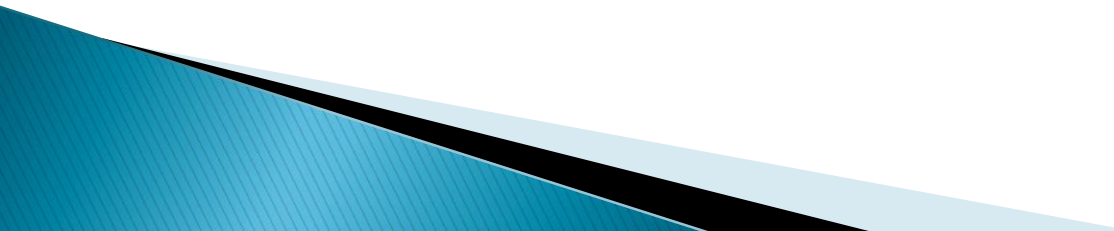
| Ten Millions	Millions	Hundred Thousands	Ten Thousands	Thousands	Hundreds	Tens	Ones
				1	7	0	8
			2	7	0	8	5

Mathematics in the EYFS

Number

➢ Recognise, count and order numbers up to 20

➢ Finding one more or one less than a given number.

➢ Add and subtract two single-digit numbers and count on or back to find the answer. E.g. 2 + 5=

➢ Solve problems, including doubling, halving and sharing.

Year 1-6

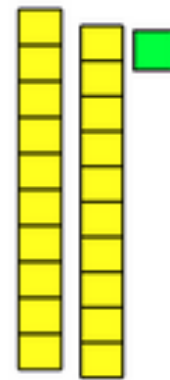- Place Value:
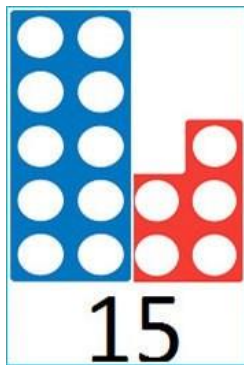– Counting
– Represent
– Comparing
– Problems

Place Value in Year 1

- 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 using a 100 square, coins;

- Identifying one more and one less.
 E.g splat square, number line
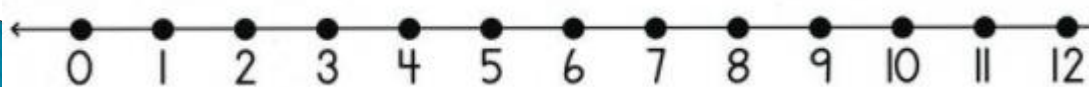
1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30
31	32	33	34	35	36	37	38	39	40
41	42	43	44	45	46	47	48	49	50
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

0   1   2   3   4   5   6   7   8   9   10   11   12

- Identify and represent numbers using objects and pictorial representations;

- Using language of equal to and more than, less than (fewer);

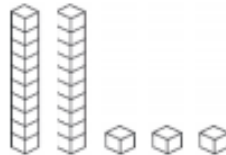- Read and write numbers from 1 to 20 in numerals and words.

Place Value in Year 2

➢ Count in steps of 2, 3 and 5 from 0, and in tens from any number forward and backwards.

E.g. 30, 40, 50   2, 4, 6, 8   21, 24, 27   15, 10, 5
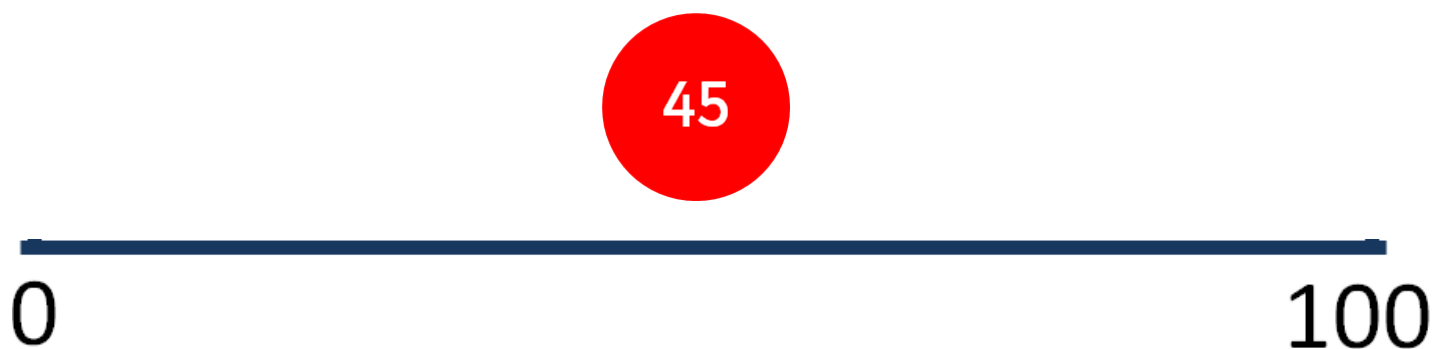
| 2 | | | 8 | | | 14 |

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

➢ Read and write numbers to at least 100 in numerals and words;

Numerals	Number in Words	Tens	Ones	Illustration
23	twenty-three	2	3	

➢ Identify, represent and estimate numbers using different representations including a number line;

Represent the following number on a 0 – 100 number line.

45

0   100

➢ Recognise the place value of each digit in a two-digit number (tens, ones);

Number	Build	Number	Build
		5	

➢ Compare and order numbers from 0 up to 100; use <, > and = signs. E.g. 6=6   6<18

➢Use place value and number facts to solve problems;

Complete the place value charts using Base 10 and place value counters to represent the number 56.

Tens	Ones

Tens	Ones

Tens	Ones

Tens	Ones

➢By the end of year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value.

E.g. 10+8=18   18–10=8
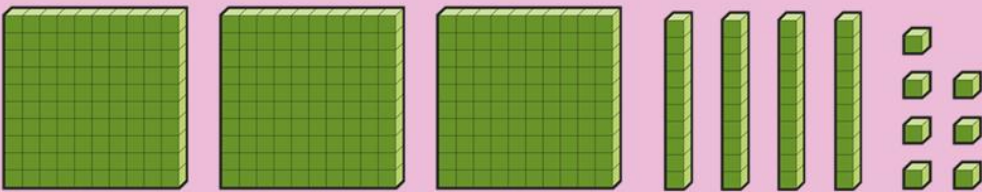
8+10=18   18–8=10

Place Value in Year 3

- Count from 0 in multiples of 4,8,50 and 100. E.g. can you count up to 80 using jumps of 4.

- Find 10 or 100 more or less than a given number.

What is 10 more than this number? **357**

If I wanted to find 10 less, I could take away a ten block.

What could I do if I wanted to find 100 more or less?

- Identify, represent and estimate numbers using different representations.

REPRESENTING NUMBERS BY DRAWING BASE 10

582
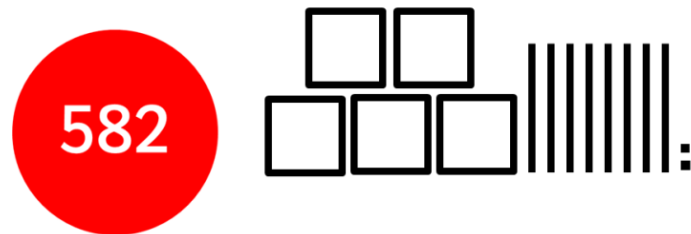
- Recognise the place value of each digit in a three-digit number (hundreds, tens, ones)

| Hundreds	Tens	Ones
2	4	1
200	40	1

| The value of the **2** is **200** | The value of the **4** is **40** | The value of the **1** is **1** |
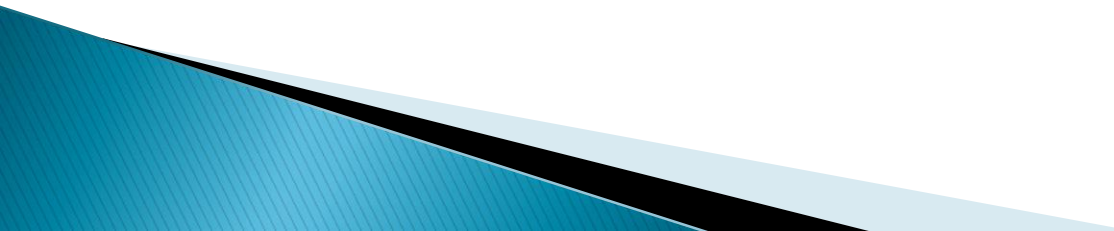
➤ Compare and order numbers up to 1000.

➤ Read and write numbers to 1000 in numerals and in words.

➤ Use larger numbers to at least 1000, applying partitioning related to place value.

234
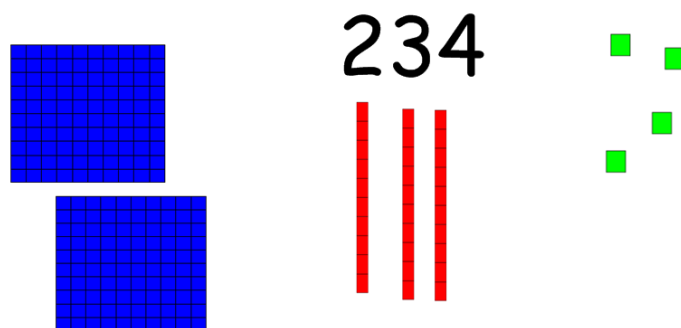
200+ 30 + 4

➤ Continue to count in ones, tens and hundreds, so that they become fluent in the order and place value of numbers to 1000.

Place Value in Year 4

➢ Count in multiples of 6, 7, 9, 25 and 1000. E.g. can you count up in 7s from 15.

➢ Find 1000 more or less than a given number. E.g. what is 1000 less than 1532.

➢ Count backwards through zero to include negative numbers.

- Identify, represent and estimate numbers using different representations.
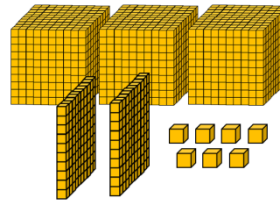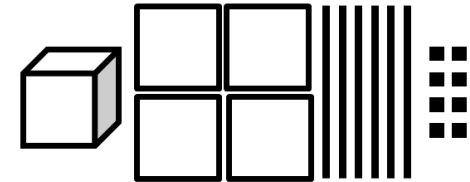
REPRESENTING NUMBERS BY DRAWING BASE 10

Represent the following number by drawing base 10:

3207

1468

- Recognise the place value of each digit in a four-digit number (thousands, hundreds, tens, and ones);
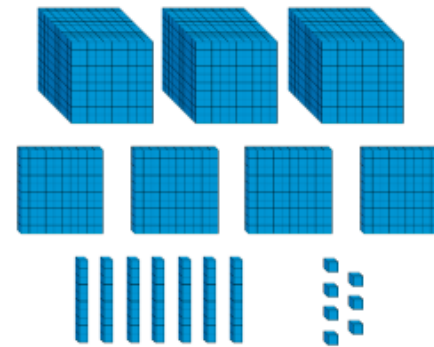
There are _____ thousands, _____ hundreds, _____ tens and _____ ones.

The number is _____ .

___ + ___ + ___ + ___ = ___

Complete the part-whole model for the number represented.

- Order and compare numbers beyond 1000. E.g. which number has the greatest value: 1234.5 or 1234.59
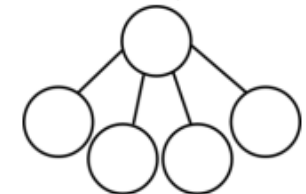
What is the value of the underlined digit in each number?

6,9**8**3   **9**,021   **7**89   6,57**0**

Represent each of the numbers on a place value grid.

➢ Round any number to the nearest 10, 100 or 1000.

Round 1289 to the nearest ten.

First, look at the ones digit:

128<u>9</u>

9 is greater than 5, so you **round up**.

So 1289 rounded to the nearest ten is *1290*.

The number line below also shows you how much closer 1289 is to 1290.

1280   1281   1282   1283   1284   1285   1286   1287   1288   1289   1290

➢ Read Roman numerals to 100 (I to C).

| I = 1 | V = 5 | X = 10 | L=50 | C=100 |

Place Value in Year 5

➢ Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.

Order these numbers from smallest to largest:

34,111   1,142   2,466   321   3,232   5,542

Compare these numbers using symbols <>

322 _ 15,322
2,211 _ 34,210

34, 44, 54, 64, 74, 84, _____, _____, _____,

429,200 , 429,300 , 429,400 , 429,500 , _____, _____

18,500 , 17,500 , 16,500 , 15,500 , _____, _____,

➢ Count forwards or backwards in steps of powers of 10 and for any given number up to 1,000,000. E.g. counting in groups of/ lots of 10 from any given number.

- Round any number up to 1,000,000 to the nearest 10, 100, 1000, 10 000 and 100 000.

- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.

2009	MMIX

2020	MMXX
2021	MMXXI
2022	MMXXII

1 → I	M → 1000
5 → V	D → 500
10 → X	C → 100
	L
	50
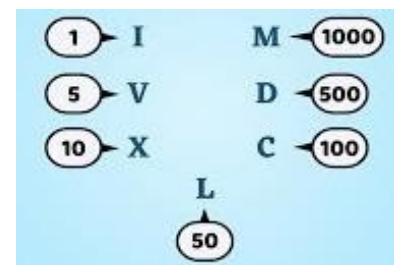
- Count forwards and backwards with positive and negative whole numbers, including through zero.

Start at 4. Count back 8.
What number do you reach?   -4

-10 -9 -8 -7 -6 -5 -4 -3 -2 -1 0 1 2 3 4 5 6 7 8 9 10

Place Value in Year 6

➤ Read, write, order and compare numbers to 10,000,000 and determine the value of each digit.

	Millions	Hundred thousands	Ten thousands	Thousands	Hundreds	Tens	Units
816 958		8	1	6	9	5	8

➤ Order numbers with a different number of digits. E.g 10,245,000   945,000   459,250

➤ Round any whole number to a require degree of accuracy. E.g. 456 round to

$$1000=0$$
$$100=500$$
$$10=460$$

> Use negative numbers in context, and calculate intervals across zero (temperature, money).

Month	J	F	M	A	M	J	J	A	S	O	N	D
Moscow- Average Temperatures ^{0}C	-8	-9	-3	5	11	19	23	21	10	4	-2	-6
Reykjavik Average Temperatures ^{0}C	2	2	1	1	4	7	9	8	6	3	0	2
Bournemouth Average Temperatures ^{0}C	4	5	8	10	11	15	18	17	14	12	7	5

1. What is the difference between the coldest and warmest temperatures in Moscow ?

Addition and Subtraction

- Recall, Represent and Use
- Calculations
- Solve problems

Part–whole model
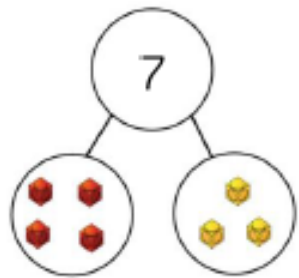
$$7 = 4 + 3$$
$$7 = 3 + 4$$
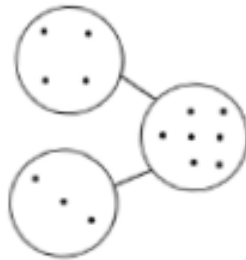
$$7 - 3 = 4$$
$$7 - 4 = 3$$
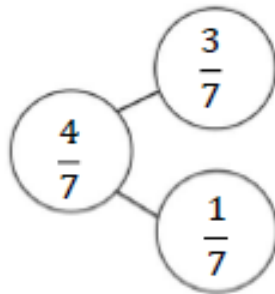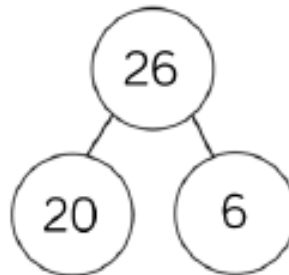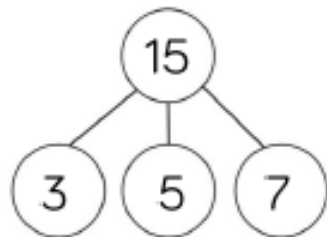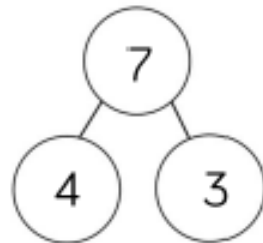
- ➢ Supports children's understanding of partitioning.

- ➢ When the parts are complete children add the parts together to find the total.

- ➢ When the whole is complete and at least one of the parts is empty, children use partitioning (a form of subtraction) to find the missing part.

- ➢ KS2 apply their understanding of the part-whole model to add and subtract fractions, decimals and percentages.

$$8 + 7 = 15$$

$$2 \quad 5$$

$$14 - 6 = 8$$

$$4 \quad 2$$

$$7 + 6 + 3 = 16$$

$$10$$

➢Support the link to effective mental methods of addition as well as the importance of commutativity.

$5 + 3 = 8$

$10 - 4 = 6$
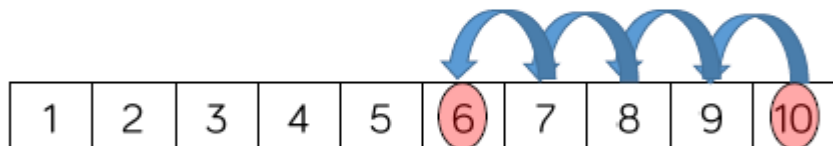
$8 + 7 = 15$

$7 + 6 = 13$
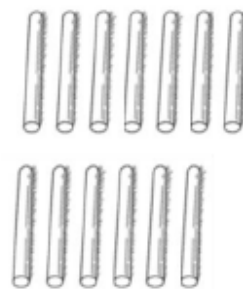
bundle together groups of 10
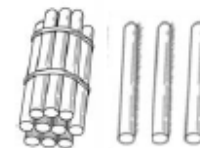
$42 - 17 = 25$
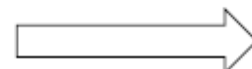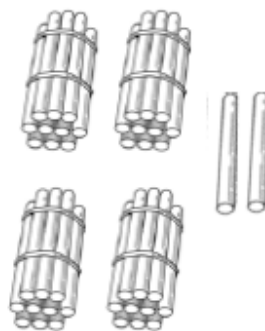
unbundle group of 10 straws
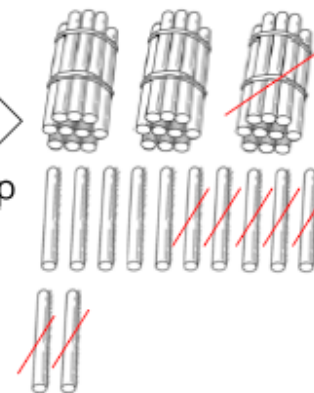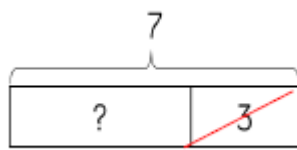
Bar Models

Concrete

- ➢ Supports children in representing calculations to help them unpick the structure.
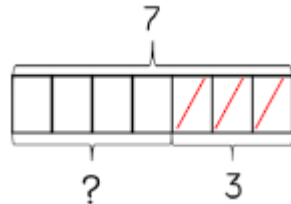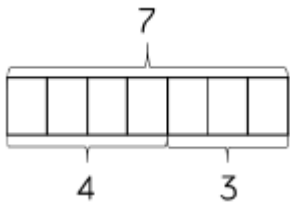
- ➢ Cubes and counters can be used as concrete representations of the bar model.

- ➢ Support children to calculate by counting on from the larger number.
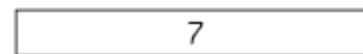
- ➢ The question mark indicates the value to be found.
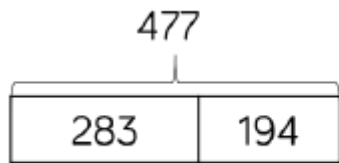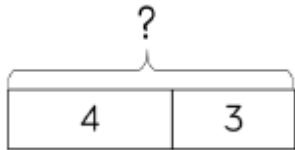
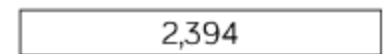In KS2, children can use bar models to represent larger numbers, decimals and fractions.
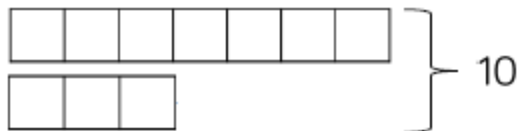
$7 + 3 = 10$
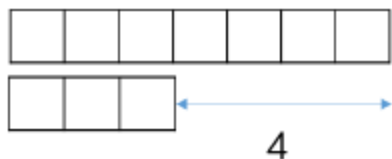
$7 - 3 = 4$

$7 - 3 = 4$

$2{,}394 - 1{,}014 = 1{,}380$

Base 10/ Dienes

- Supports children's understanding of column addition.

- Important that children write out their calculations alongside using or drawing Base 10 so they can see the clear links between the written method and the model.

- Start adding without an exchange. The move in to addition with exchange.

- Less efficient with larger numbers -> Place value counters.

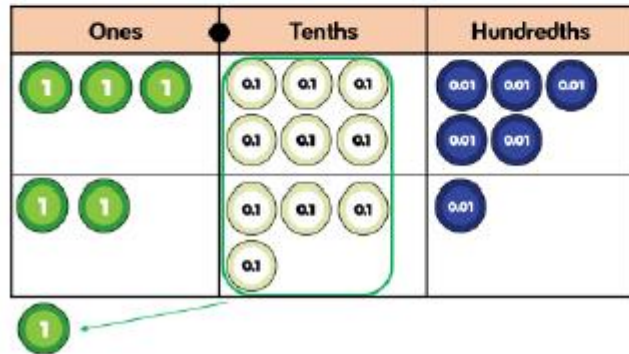- Adding always starts with the smallest place value column.
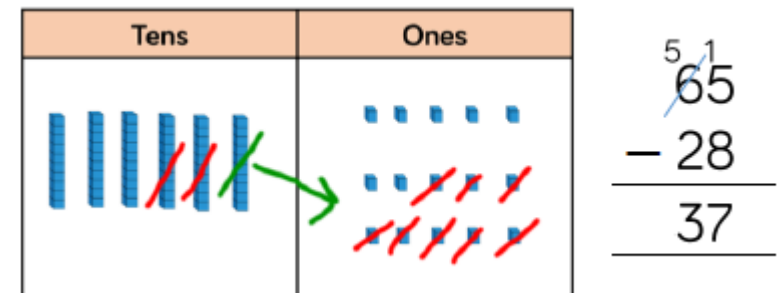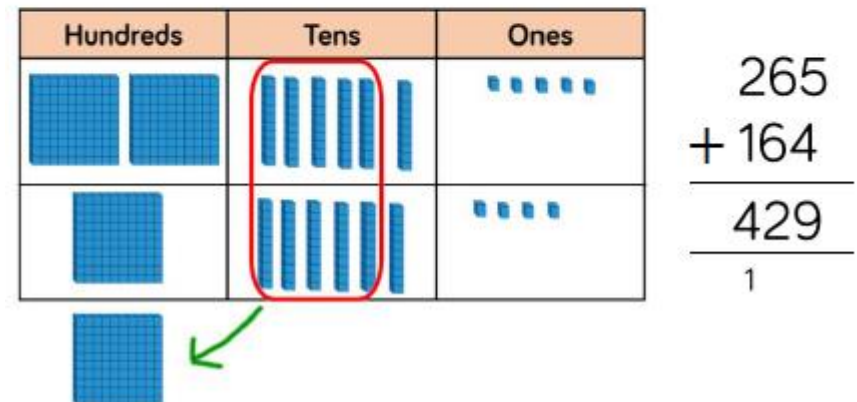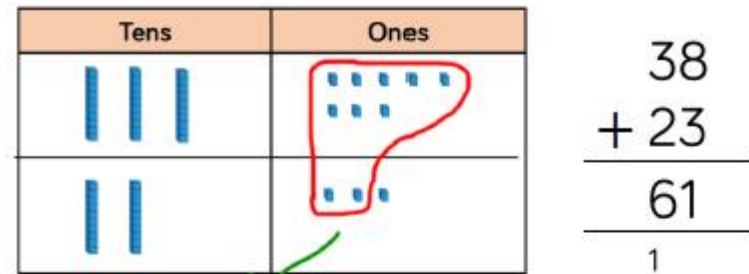
Place value counters
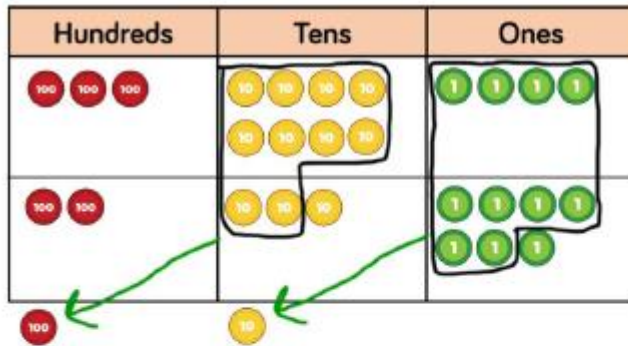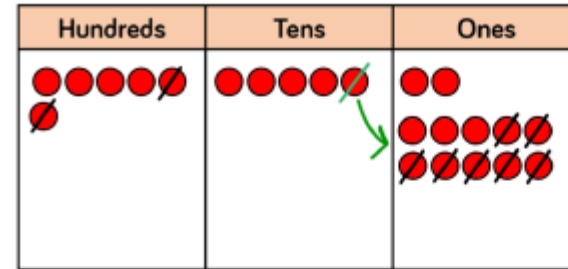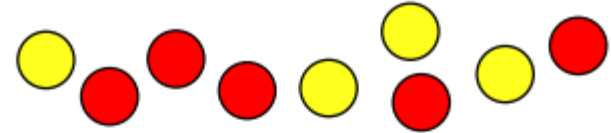
Addition and Subtraction
Year 1

➤ Read, write and interpret mathematical statements involving addition, subtraction and equals signs. E.g.

_ $= 5 + 4$

_ $+$ _ $= 9$

➤ Represent and use number bonds and related subtraction facts within 20.
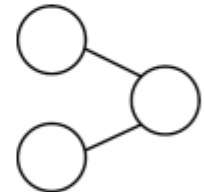
Here are some counters.

Group the counters by colour.
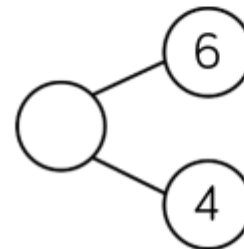Fill in the gaps in the sentence and say it out loud.

_____ red counters plus _____ yellow counters is equal to _____ counters.

Complete the part-whole model and the number sentence.

☐ $+$ ☐ $=$ ☐

Use cubes to solve the following calculations.

6

4

$5 + 3 =$ ☐

$8 + 1 =$ ☐

Write the number fact to match the story and picture.

Star cooked 8 muffins. She gave 4 to her friend. How many muffins did Star have left?

☐ $-$ ☐ $=$ ☐

➤ Add and subtract one-digit and two-digit numbers to 20, including zero. E.g.

5-3=   12-6=   20-   =20

➤ Solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as

7 = ? – 9

E.g. Tony has 3 apples and Terry has 2 apples, How many altogether?
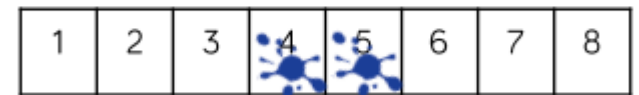
True or False?

If I add 0 to a number, the number stays the same.

Can you use a number line or counters to help you explain your answer?
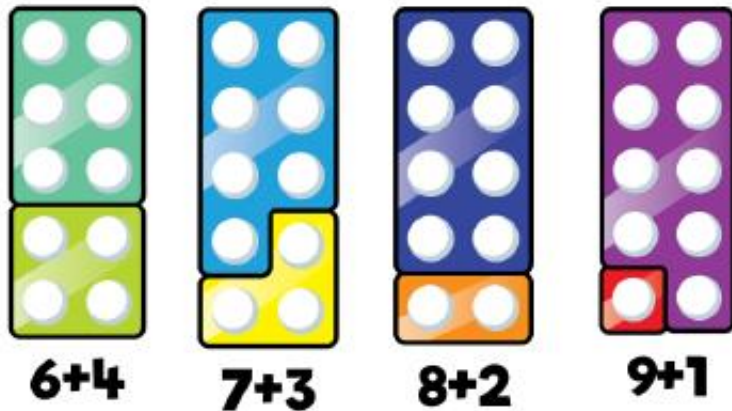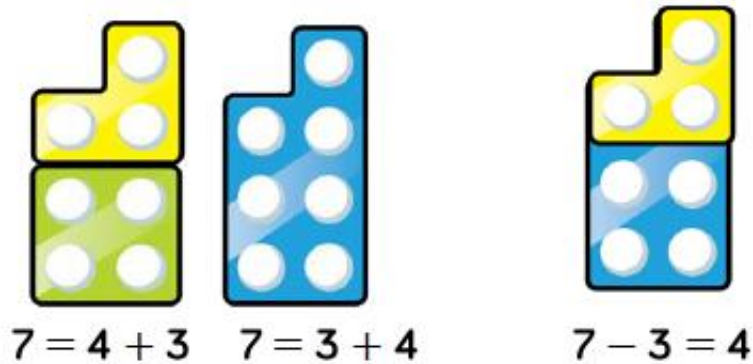
Mo has used the number track to complete 4 + 2
He thinks the total is 5

1	2	3	4	5	6	7	8

What mistake has he made?
How could Mo use the number track to find the correct answer?

Numicon

$7 = 4 + 3$ $7 = 3 + 4$ $7 - 3 = 4$

6+4   7+3   8+2   9+1

- Support children to subitise numbers as they become familiar with the shape of each number.

- Explore aggregation (form of addition where parts are combined together to make a whole), partitioning and number bonds.

- Subtraction- children start with the whole and then place the parts on top to see what part is missing.

- Number bonds- as you increase one number by 1, you can see that the other number decreases by 1 to find all the possible number bonds for a number.
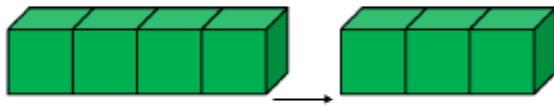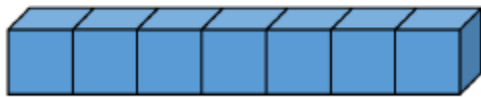
Unifix cubes

$7 = 4 + 3$

$7 = 3 + 4$

$7 - 3 = 4$

$7 - 3 = 4$

➤ Supports children with addition and subtraction of 1 digit numbers.

➤ Addition- Children can see how the parts come together to make a whole.

➤ Subtraction- Start with the whole then removing the number of cubes being subtracted in order to find the answer.

➤ Looking at subtraction as difference. Both numbers made and then lined up to find the different between the numbers.

➤ Cubes work with smaller numbers as it is difficult to subitise with larger numbers and children may miscount them.

Ten Frames (within 10 and 20)
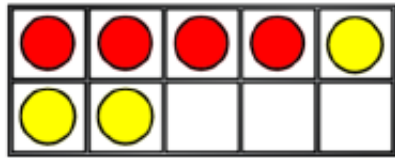
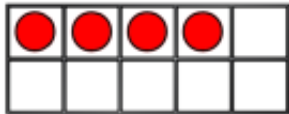$4 + 3 = 7$ 4 is a part.
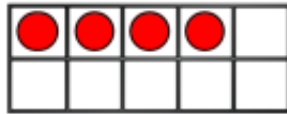$3 + 4 = 7$ 3 is a part.
$7 - 3 = 4$ 7 is the whole.
$7 - 4 = 3$

First   Then   Now

$4 + 3 = 7$

First   Then   Now

$7 - 3 = 4$

- Used for addition and subtraction.

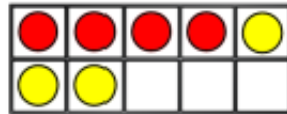- Support children to understand the different structures of addition and subtraction.

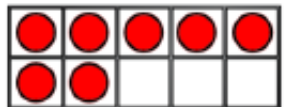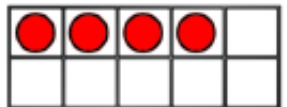- Introduces children to aggregation and partitioning (whole is split into parts).
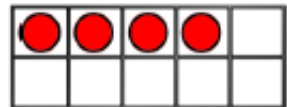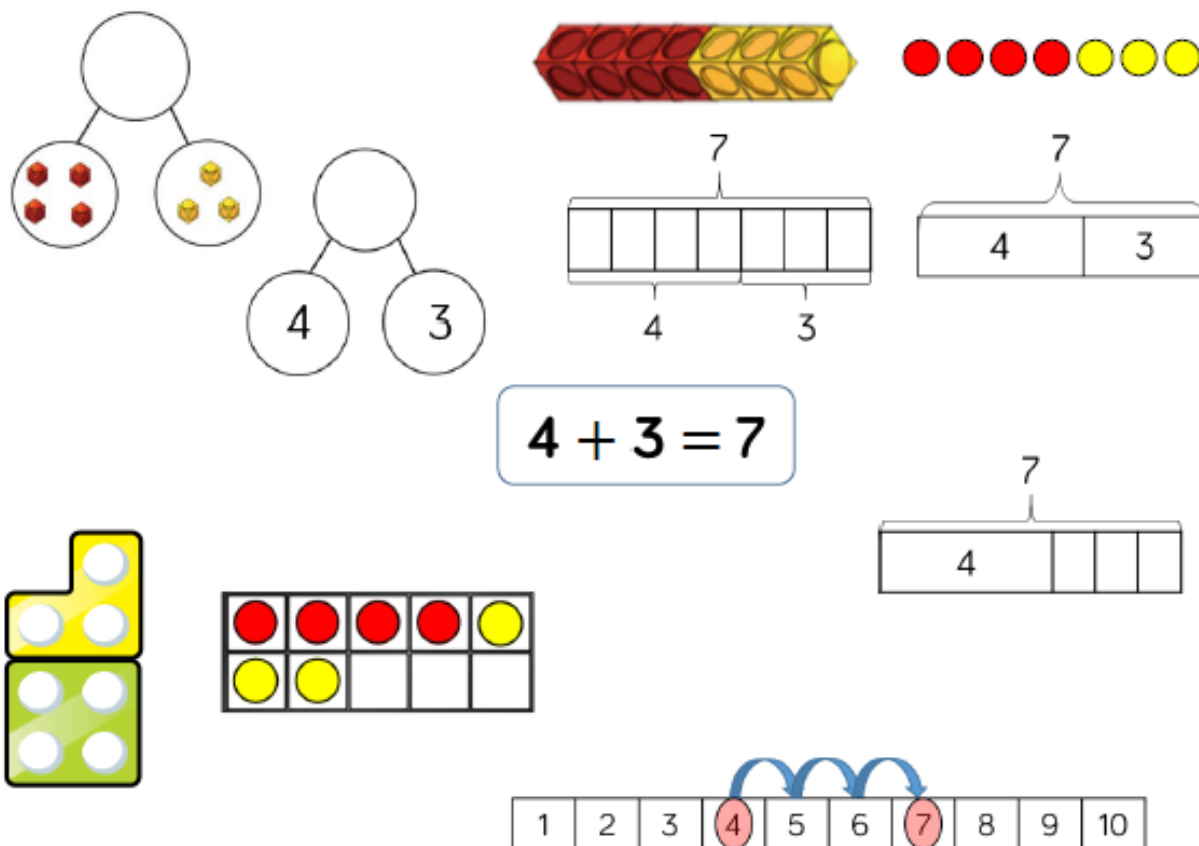
- Supports children to find all the number bonds for a number.

- Story structures- Now, then, next. E.g. First there were 7 cars. Then, 3 cars left. Now, there are 4 cars.

Addition

Skill: Add 1-digit numbers within 10	Year: 1

$$4 + 3 = 7$$

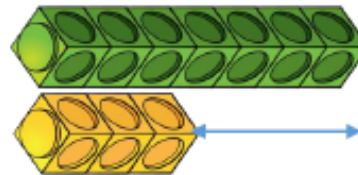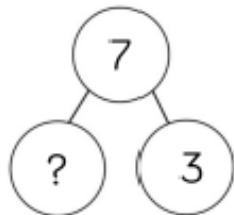When adding numbers to 10, children can explore both aggregation and augmentation.

The part-whole model, discrete and continuous bar model, number shapes and ten frame support aggregation.

The combination bar model, ten frame, bead string and number track all support augmentation.
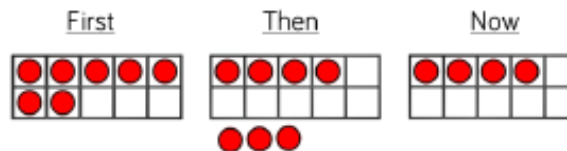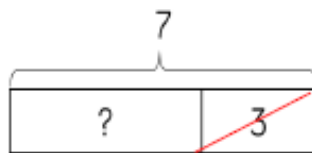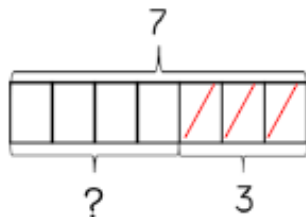
Subtraction

Skill: Subtract 1-digit numbers within 10	Year: 1
	Part-whole models, bar models, ten frames and number shapes support partitioning. Ten frames, number tracks, single bar models and bead strings support reduction. Cubes and bar models with two bars can support finding the difference.

$7 - 3 = 4$

First   Then   Now

Addition and Subtraction

Year 2

➢ 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

Use the place value charts and concrete materials to complete the calculations.

Tens	Ones

```
  2 3
+ 4 0
-----
```

Tens	Ones

```
  5 6
- 3 0
-----
```

- Solve problems using concrete objects and pictorial representations and those involving numbers, quantities and measures. E.g. cubes, coins, measuring jugs of different amounts of ml.

- Recall and use addition and subtraction facts to 20 fluently, and derive and use related facts up to 100. E.g. 4 + 6 =

    40 + 60 =

    9+1=10
    19+1=20

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

- Recognise and use the inverse relationship between addition and subtraction and use this to check calculations and solve missing number problems.

Can you use inverse operations to check $5 + 12 = 17$?

17	
12	5
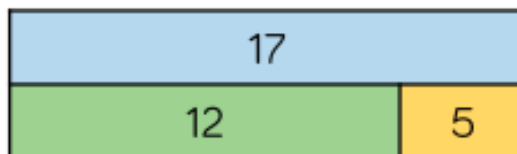
How many possible inverse calculations are there?

Eva writes this calculation: $18 - 5 = 13$
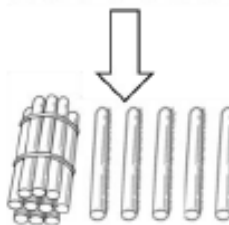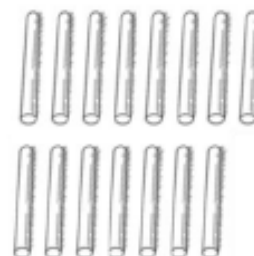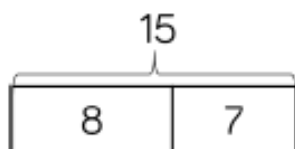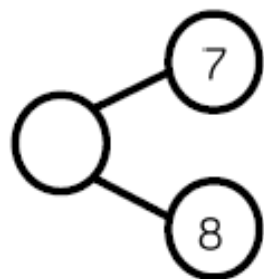Which of the following could she use to check her work?

$13 + 5$ $\qquad$ $13 - 5$

$18 - 13$ $\qquad$ $5 + 13$

Skill: Add 1 and 2-digit numbers to 20	Year: 1/2

7

8

15

| 8 | 7 |

$8 + 7 = 15$

$8 + 7 = 15$

2   5

$+2$ $+5$

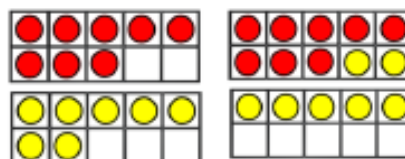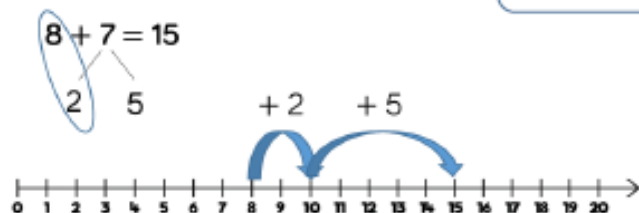0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20

$8 + 7 = 15$

2   5

When adding one-digit numbers that cross 10, it is important to highlight the importance of ten ones equalling one ten.
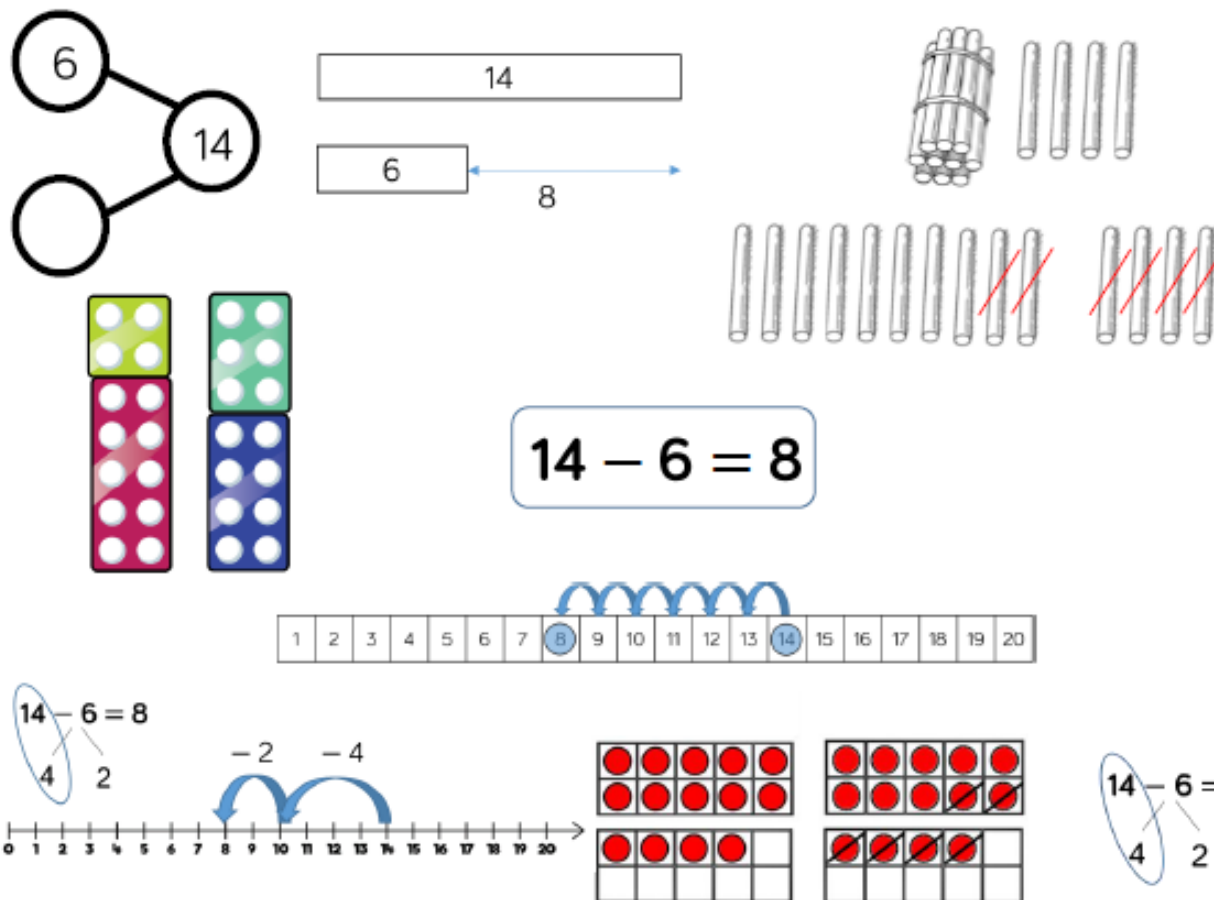
Different manipulatives can be used to represent this exchange. Use concrete resources alongside number lines to support children in understanding how to partition their jumps.

| Skill: Subtract 1 and 2-digit numbers to 20	Year: 1/2

When subtracting one-digit numbers that cross 10, it is important to highlight the importance of ten ones equalling one ten.
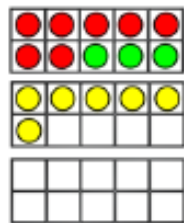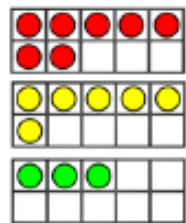
Children should be encouraged to find the number bond to 10 when partitioning the subtracted number. Ten frames, number shapes and number lines are particularly useful for this.

$$14 - 6 = 8$$

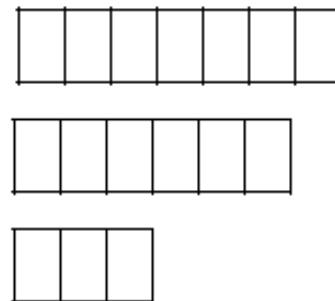| Skill: Add three 1-digit numbers	Year: 2
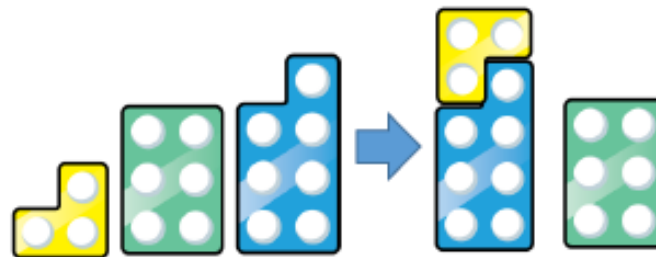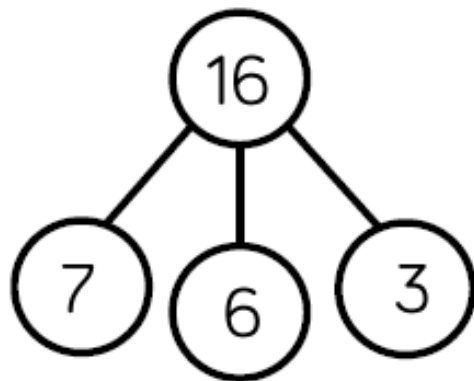
$$7 + 6 + 3 = 16$$

$$7 + 6 + 3 = 16$$

When adding three 1-digit numbers, children should be encouraged to look for number bonds to 10 or doubles to add the numbers more efficiently.

This supports children in their understanding of commutativity.

Manipulatives that highlight number bonds to 10 are effective when adding three 1-digit numbers.

Skill: Subtract 1 and 2-digit numbers to 100	Year: 2
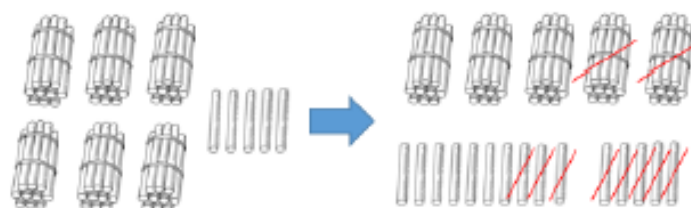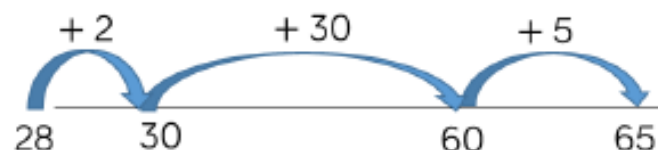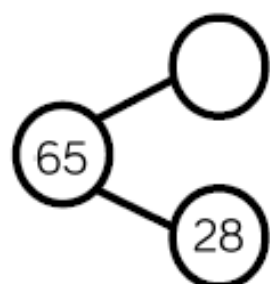
$$65 - 28 = 37$$
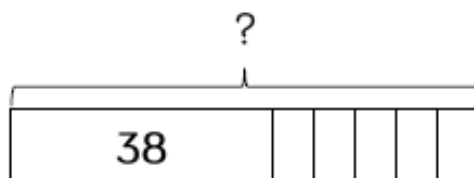
At this stage, encourage children to use the formal column method when calculating alongside straws, base 10 or place value counters. As numbers become larger, straws become less efficient.

Children can also use a blank number line to count on to find the difference. Encourage them to jump to multiples of 10 to become more efficient.

Skill: Add 1-digit and 2-digit numbers to 100	Year: 2/3

When adding single digits to a two-digit number, children should be encouraged to count on from the larger number.

They should also apply their knowledge of number bonds to add more efficiently e.g. $8 + 5 = 13$ so $38 + 5 = 43$.

Hundred squares and straws can support children to find the number bond to 10.

$$38 + 5 = 43$$

Addition and Subtraction

Year 3

- Add and subtract numbers mentally, including:
  - a three digit number and ones
  - a three digit number and tens
  - a three digit number and hundreds

  E.g. $136+4=$ $166-3=$ $178-30=$

- Add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction.

- Estimate the answer to a calculation and use inverse operations to check answers. E.g. $234+244$, the answer will be less than 500 because $250+250=500$

- Solve problems, including missing number problems, using number facts and place value.

$$13\square - 50 = 85$$

$$334 - \square 0 = 294$$

$$545 = 6\square 5 - 70$$

Skill: Add two 2-digit numbers to 100	Year: 2/3
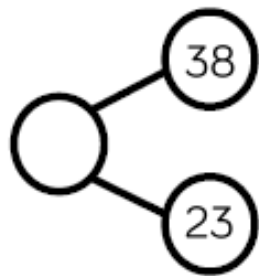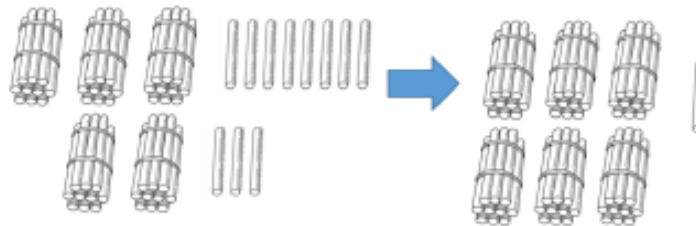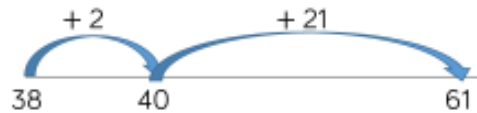
$$38 + 23 = 61$$
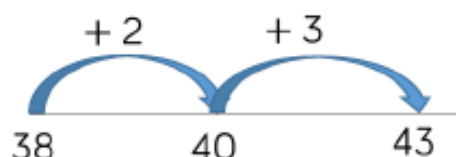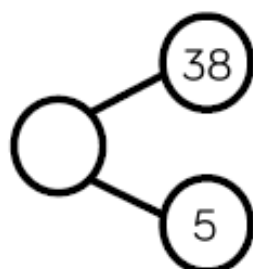
At this stage, encourage children to use the formal column method when calculating alongside straws, base 10 or place value counters. As numbers become larger, straws become less efficient.
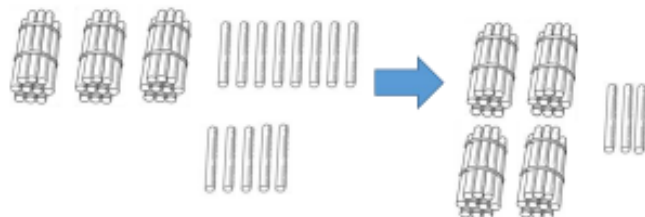
Children can also use a blank number line to count on to find the total. Encourage them to jump to multiples of 10 to become more efficient.

Skill: Add numbers with up to 3 digits	Year: 3

$$265 + 164 = 429$$

Base 10 and place value counters are the most effective manipulatives when adding numbers with up to 3 digits.

Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.

Plain counters on a place value grid can also be used to support learning.

Skill: Subtract numbers with up to 3 digits	Year: 3

$$435 - 273 = 262$$

Base 10 and place value counters are the most effective manipulative when subtracting numbers with up to 3 digits.

Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.

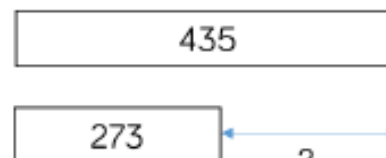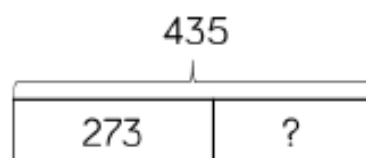Plain counters on a place value grid can also be used to support learning.

Addition and Subtraction
Year 4

➢ Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction

➢ where appropriate.

$$\begin{array}{r} 8389 \\ +\ 2094 \\ \hline \end{array}$$

$$\begin{array}{r} 7425 \\ -\ 6773 \\ \hline \end{array}$$

➢ Estimate the answer to a calculation and use inverse operations to check answers.

E.g. 1234+1244, the answer will be less than 2500 because 1250+1250=2500.

$292\ +\ \boxed{}\ =\ 301$

$\boxed{}\ +\ 3\ =\ 441$

➤ Solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why.

Amir has £1,000

He buys a scooter for £345 and a skateboard for £110

How much money does he have left?

Show 3 different methods of finding the answer.

Explain how you completed each one.

Which is the most effective method?

There were 2,114 visitors to the museum on Saturday.
650 more people visited the museum on Saturday than on Sunday.

MUSEUM

Altogether how many people visited the museum over the two days?

What do you need to do first to solve this problem?

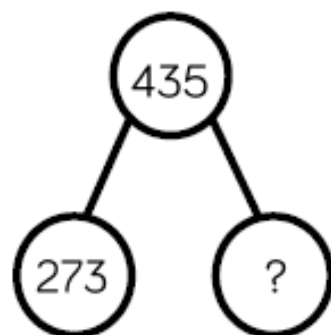| Skill: Add numbers with up to 4 digits	Year: 4
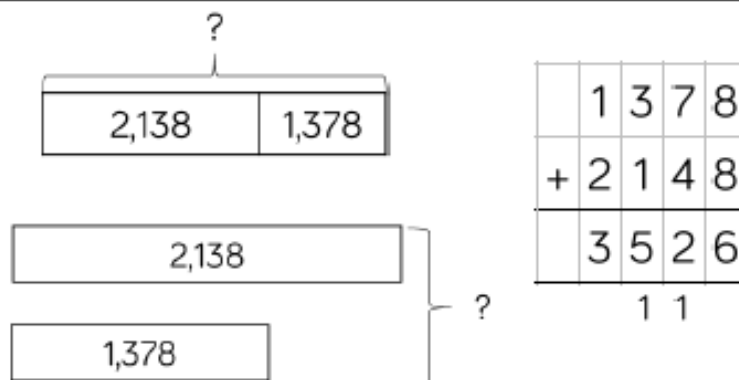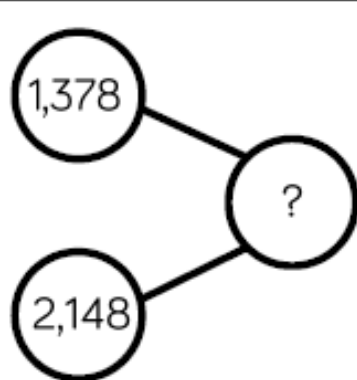
$$1,378 + 2,148 = 3,526$$
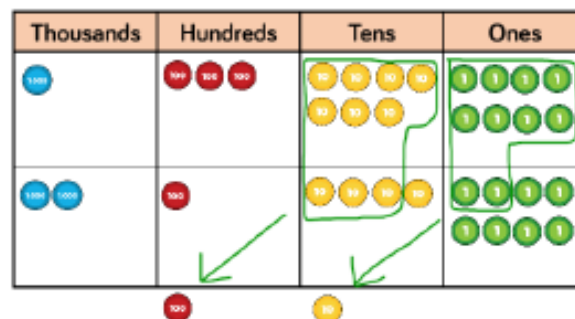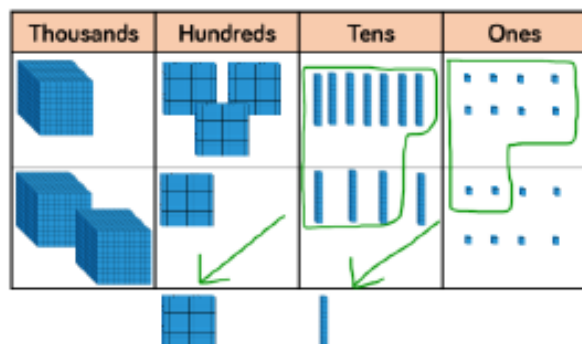
Base 10 and place value counters are the most effective manipulatives when adding numbers with up to 4 digits.

Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.
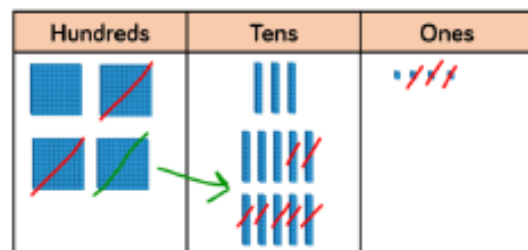
Plain counters on a place value grid can also be used to support learning.
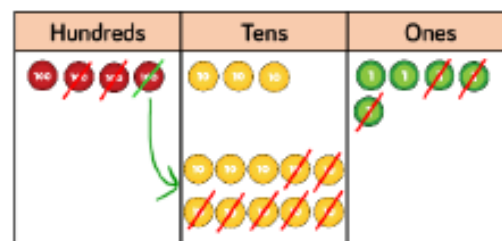
Skill: Subtract numbers with up to 4 digits	Year: 4

4,357

2,735   ?

4,357

2,735   ?

$$^{3\ 1}\cancel{4}357$$
$$- 2735$$
$$\overline{1622}$$
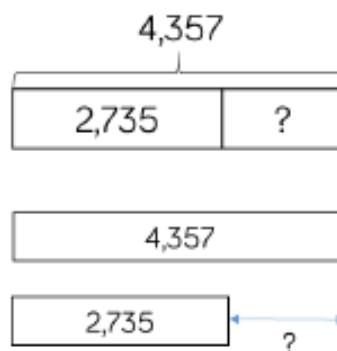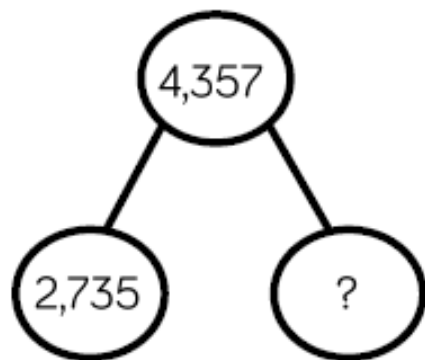
$$4,357 - 2,735 = 1,622$$

Thousands	Hundreds	Tens	Ones

Thousands	Hundreds	Tens	Ones

Base 10 and place value counters are the most effective manipulatives when subtracting numbers with up to 4 digits.

Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.

Plain counters on a place value grid can also be used to support learning.

# Addition and Subtraction

Year 5

$$
\begin{array}{r}
7\ \ 8\ \ 9 \\
+\ \ 6\ \ 4\ \ 2 \\
\hline
1\ \ 4\ \ 3\ \ 1 \\
1\ \ \ \ 1 \\
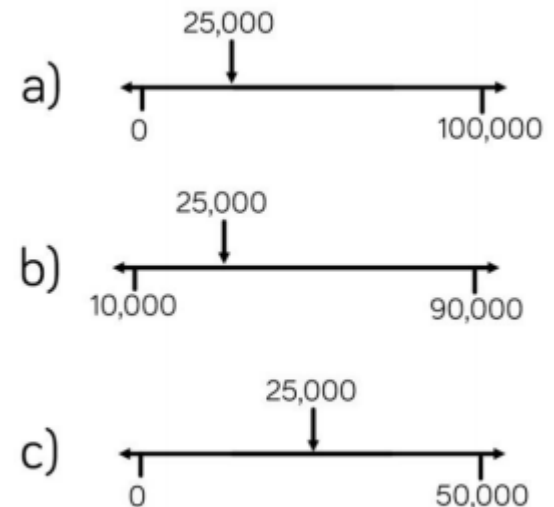\end{array}
$$

➢ Add and subtract whole numbers with no more than 4 digits, including using formal written methods (columnar addition and subtraction)

➢ Use rounding to check answers to calculations and determine, in the context of a problem.

Which estimate is inaccurate?

a)
25,000
0   100,000

b)
25,000
10,000   90,000

c)
25,000
0   50,000

Explain how you know.

- Add and subtract numbers mentally with increasingly large numbers.

- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

- Solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign.

278 + 200 =
426 + 330 =

Mo, Whitney, Teddy and Eva collect marbles.

Mo: I have 1,648 marbles.

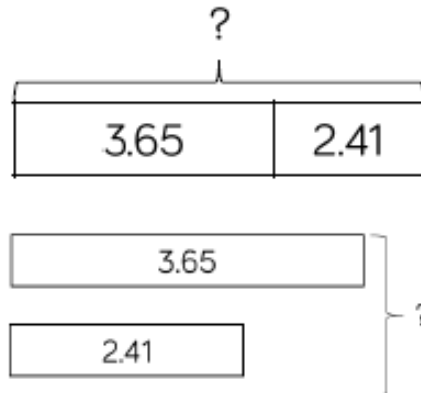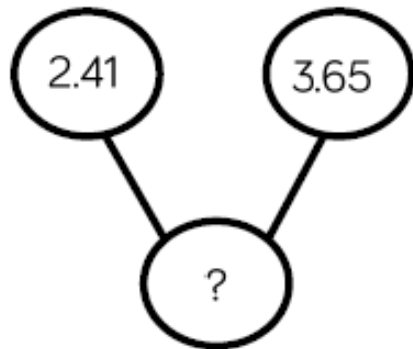Whitney: I have double the amount of marbles Mo has.

Teddy: I have half the amount of marbles Mo has.

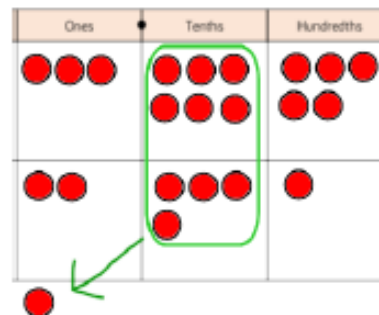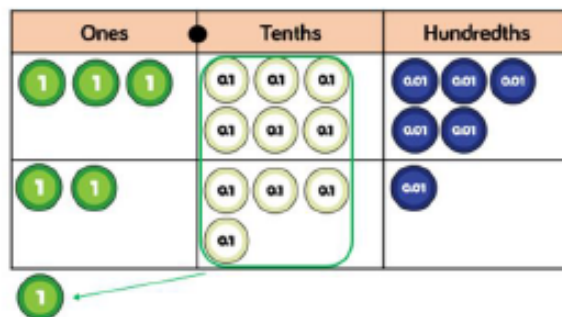In total they have 8,524 marbles between them.
How many does Eva have?

Skill: Add with up to 3 decimal places	Year: 5

Place value counters and plain counters on a place value grid are the most effective manipulatives when adding decimals with 1, 2 and then 3 decimal places.

Ensure children have experience of adding decimals with a variety of decimal places. This includes putting this into context when adding money and other measures.

2.41   3.65   ?

?

| 3.65 | 2.41 |

3.65

2.41   ?

$$3.65 + 2.41 = 6.06$$

$$\begin{array}{r} 3.65 \\ + 2.41 \\ \hline 6.06 \\ 1 \end{array}$$

Ones	Tenths	Hundredths
1 1 1	0.1 0.1 0.1 / 0.1 0.1 0.1	0.01 0.01 0.01 / 0.01 0.01
1 1	0.1 0.1 0.1 / 0.1	0.01
1		

Ones	Tenths	Hundredths
● ● ●	● ● ● / ● ● ●	● ● ● / ● ●
● ●	● ● ● / ●	●
●		

| Skill: Subtract with up to 3 decimal places | Year: 5 |

Addition and Subtraction
Year 6

▸ Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.

A milkman has 250 bottles of milk.

He collects another 160 from the dairy, and delivers 375 during the day.

How many does he have left?

My method:

$375 - 250 = 125$

$125 + 160 = 285$

Tommy

Do you agree with Tommy?
Explain why.

On Monday, Whitney was paid £114

On Tuesday, she was paid £27 more than on Monday.

On Wednesday, she was paid £27 less than on Monday.

How much was Whitney paid in total?

How many calculations did you do?

Is there a more efficient method?

- Perform mental calculations. Including with mixed operations and large numbers.

- Use their knowledge of the order of operations to carry out calculations involving the four operations.

Order of Operations

B	**Brackets**	$10 \times (4 + 2) = 10 \times 6 = 60$
I	**Indices**	$5 + 2^2 = 5 + 4 = 9$
D	**Division**	$10 + 6 \div 2 = 10 + 3 = 13$
M	**Multiplication**	$10 - 4 \times 2 = 10 - 8 = 2$
A	**Addition**	$10 \times 4 + 7 = 40 + 7 = 47$
S	**Subtraction**	$10 \div 2 - 3 = 5 - 3 = 2$

$$(19 - 7) + 8^2 + 9 =$$

Skill: Add numbers with more than 4 digits	Year: 5/6

$$104{,}328 + 61{,}731 = 166{,}059$$

HTh	TTh	Th	H	T	O
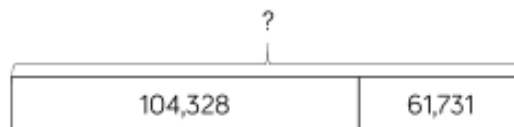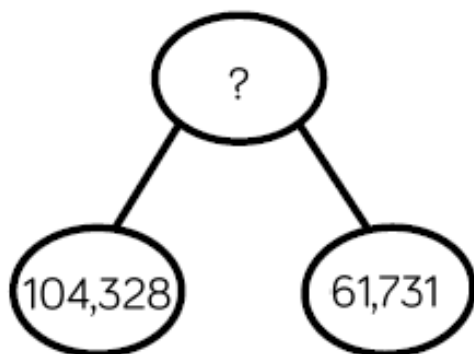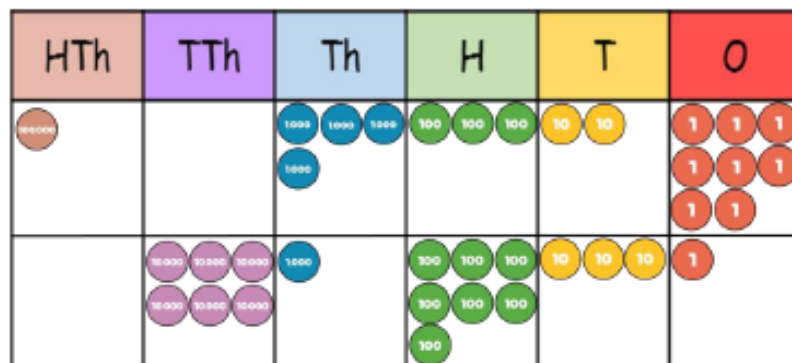
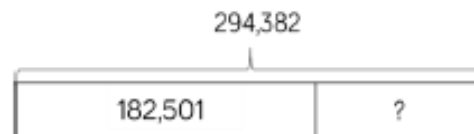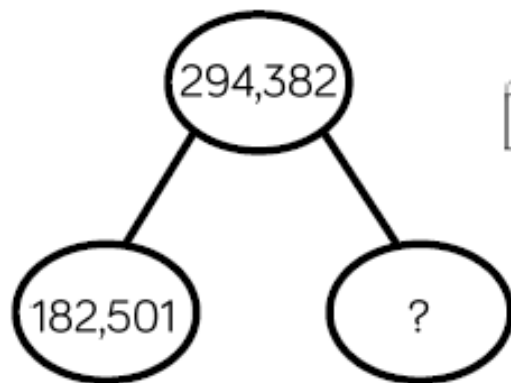|	1	0	4	3	2	8
	+	6	1	7	3	1
	1	6	6	0	5	9
			1			

Place value counters or plain counters on a place value grid are the most effective concrete resources when adding numbers with more than 4 digits.

At this stage, children should be encouraged to work in the abstract, using the column method to add larger numbers efficiently.

Skill: Subtract numbers with more than 4 digits	Year: 5/6

$$294,382 - 182,501 = 111,881$$
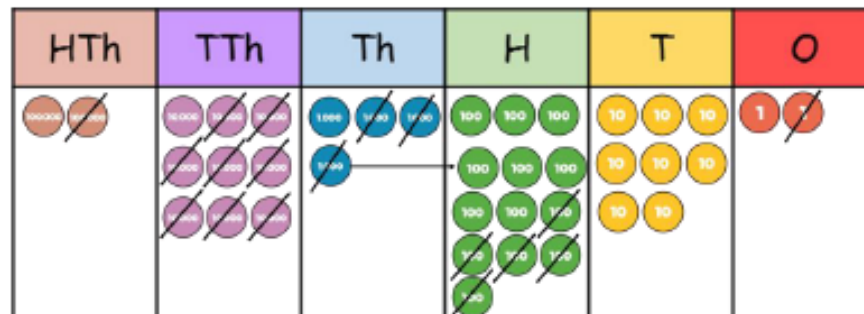
HTh	TTh	Th	H	T	O

Place value counters or plain counters on a place value grid are the most effective concrete resource when subtracting numbers with more than 4 digits.

At this stage, children should be encouraged to work in the abstract, using column method to subtract larger numbers efficiently.

	2	9	³ ̷4	¹3	8	2
−	1	8	2	5	0	1
	1	1	1	8	8	1

Websites

- Gov website Mathematics National Curriculum

- St Catherine's website ⇨ learning ⇨ Maths
  - Maths, Calculation and Addition/subtraction policies
  - White Rose Schemes of Learning

- whiterosemaths.com⇨ resources ⇨ primary resources

- NCETM

- oxfordowl.co.uk

Maths Games

- https://home.oxfordowl.co.uk/kids-activities/fun-maths-games-and-activities/www.bbc.co.uk/cbeebies/topics/numeracy
- Nrich
- BBC Bitesize
- Board games- Yahtzee, Rummikub, snakes and ladders, Monopoly, Bingo, Dominoes
- Dice games
- Card games: 10 pairs (addition/number bonds), Snap (cards add up to target number) etc
- Math Boggle (16 number cards- make a maths sentence) Topmarks.co.uk
- Hit the button- Number bonds and times tables
- education.com/games/math/
- uk.splashlearn.com/place-value-games
- www.ictgames.com/mobilePage/placeValue

mathsbot.com/manipulativeMenu

Questions