St. Mary's Church of England Primary School, High Crompton

Maths Policy

Written: January 2024
Approved by Governors: 25/1/2024
Review Date: January 2027
Signed by Chair: A. Green

Maths Policy

CHRISTIAN VISION

Our Vision is through God's love and our Christian Values, we encourage each individual to love, respect and value God, themselves and others.
We encourage and nurture everyone to flourish and grow into the unique person God made them to be, ready to go out into the world to love others.

This is rooted in Jesus' words: Love one another as Jesus loved us (John 13 v 34-35)

Introduction

Maths is a tool for everyday life. Whichever path an individual takes in life; they will require mathematical skills. The learning that children experience in maths at St. Mary's School will allow them to gain the knowledge and understanding and skills that are necessary in many aspects of life.

Aims/Objectives

The aims at St. Mary's School are:

- To develop an enjoyment of maths for all children.
- To enable children to become independent, confident and logical thinkers.
- To enable children to acquire number fluency.
- For children to have a positive attitude to maths.
- To build confidence and competence with numbers, geometry, measures, statistics and problem solving.
- To equip children with the skills necessary to solve mathematical problems
- To develop children's ability to reason about mathematics
- To allow children to apply mathematical knowledge and skills to everyday life

The National Curriculum

Reception

Teachers use the Maths section of the 'Early Years Foundation Stage Curriculum' document to deliver maths to children in the Reception Class.

Years 1 to 6

Teachers use the year group objectives from the maths section of the 2014 National Curriculum.

Breadth of Study

Children are offered opportunities to develop mathematical skills and knowledge in daily maths lessons and also in other subjects, for example, science, geography and ICT. Links are made to work undertaken in maths lessons so that children can apply skills and knowledge and realise the importance of maths in the wider world.

Through careful planning we aim to ensure that children are given opportunities for:

- Calculating using practical apparatus, pencil and paper procedures and formal written methods appropriate to the age of the child.
- Learning and using number facts.
- Reasoning and problem solving.
- Individual, paired, group or whole class discussions and activities.
- Activities that cater for different learning styles, so that children can maintain a positive attitude to maths.
- Using ICT to support mathematical understanding e.g LBQ

Scheme of work

Year group objectives for Number, Measures, Geometry and Statistics are listed in the Maths section of the 2014 National Curriculum.
Class teachers base their daily lesson plans on the objectives for their year group.
Calculation methods are detailed in the White Rose ' Addition and Subtraction' and 'Multiplication and Division' Calculation policies.(Appendix 1 ??).

Teaching and Learning

All children will have a daily maths lesson with a main learning challenge. The White Rose Maths small steps forms the basis for the teaching of maths. Most lessons have opportunities for children to count, learn or rehearse using number facts, calculate, reason and solve problems. Children may also carry out additional maths activities outside the daily maths lesson.

Direct teaching is a major part of lessons where new learning challenges are being taught.The ' I Do, We do, You do model is used to scaffold the teaching of new concepts. The learning challenge is shared with the children at the beginning of each lesson. 'Remember Tos' (success criteria) are shared with the children and displayed in lessons, to ensure that children know the steps required to achieve the learning challenge. They are also used to self- assess at the end of a lesson.

Where possible, the teaching of new concepts follows the 'Concrete- Pictorial- Abstract' model, to enable children to understand, remember and apply what has been taught.

Inclusion

All children receive quality first mathematics teaching on a daily basis and children are given support where necessary. Class teachers, SENDCo and Pupil Progress Meetings help to identify early any pupils who may need additional support or catch-up programmes. Teachers monitor the progress of these pupils.
The needs of children with English as an additional language will be met through planning and support. This is supported by our equal opportunities policy.

Planning and Organisation

Each class has a daily maths lesson based on objectives from the White Rose scheme of work. This is supplemented by a range of other activities which form a key part of the maths teaching at St. Mary's school and are outlined in Appendix 2.

Foundation stage

Long Term Planning

Key objectives are taken from the Early Learning Goals. These are all planned into the White Rose Early Years scheme of work .

Medium Term Planning

The White Rose Early Years scheme of work forms the basis for the planning of maths. Each term contains 3-4 units of work.

Short Term Planning

Specific objectives from the White Rose units of work form the basis of the weekly plans.
Weekly plans are recorded on the school weekly planning sheet.
In the Foundation Stage maths, a whole class numeracy input is taught daily. Adult led maths activities are provided alongside other curriculum activities and children complete these on a rota basis. Maths learning also takes place throughout the continuous provision, both inside and outside the classroom, where children can choose to access play-based activities and learn independently.

Years 1 – 6

Long Term Planning

Teachers will plan from the year group objectives for Number, Measures, Geometry and Statistics which are listed in the Maths section of the 2014 National Curriculum. These objectives are blocked for the year in the White Rose Maths scheme.

Medium Term Planning

Teachers use the termly unit plans from White Rose Maths for their year group. The maths objectives are blocked into units of work which range between 1 and 4 weeks in length.

Short Term Planning

The small steps within each White Rose unit of work form the basis of daily lessons. Many of the small steps will be taught within one lesson though some may require more time.

Weekly plans are recorded on the school weekly planning sheet.
The learning challenge, activities and level of support will be included in the lesson plans. Teachers evaluate each lesson and use this to plan future lessons.

Teaching calculation at St. Mary's Primary School

Efficient calculation methods are essential to learning maths. It is important that children are taught consistent methods of calculation and can use the four number operations with confidence. This knowledge can then be used and applied to other areas of maths, such as problem solving and fractions.

For each of the four operations, children will work on the objectives for their year group. It may be necessary for some children to work on objectives from a different year group if their level of understanding requires it.

Methods of calculation are taught using the White Rose Calculation Policy.
(Appendix 1)

Teaching of Number Bonds

Specific knowledge of number bonds is taught in line with the White Rose plan.
Key facts are regularly revised and reinforced.
The NumBots programme is used for the rehearsal and consolidation of facts.
https://numbots.com/

Teaching of Multiplication Tables

The teaching of specific tables will be taught as stated in the National Curriculum:
Y2: x2, x5, x10
Y3: x3, x4, x8
Y4: x6, x7, x9, x11, x12

All children from Y2- Y6 will access Times Tables RockStars https://play.ttrockstars.com to aid recall.Children are rewarded with a certificate when they have improved their 'Rock Status' or have made a significant effort to improve their recall of facts.

Children's ability to recall multiplication and division facts will be regularly assessed from Year 2 - Year 6.

Pupils in Year 4 will undertake the statutory Multiplication Recall Test in June each year.
Children who require further practice, will continue with additional support in Years 5 and 6.

Maths Resources

ICT

LBQ:
KS2 classes have a licence for children to access lessons and monitor individual progress. KS1 can use LBQ as a teaching tool.

https://play.ttrockstars.com
https://numbots.com/
White Rose interactive whiteboard Notebook files resources

www.mymaths.com
www.snappymaths.com
https://mathsbot.com/starter
https://uk.ixl.com/ (Year 6)

Assessment, Recording and Reporting

Foundation Stage

Assessments are recorded during teacher led activities. Short incidental observations are recorded on going. All information and evidence gathered is used to inform future planning and make judgements against the Foundation Stage Profile. The profiles are updated termly.

Years 1 -6

Children will undertake formal assessments throughout the year. The Autumn Term White Rose assessments are used in October and the mid- year Testbase tests are used in February (Y1 – Y6). These assessments have an arithmetic paper and a problem solving and reasoning test. In May, the Testbase end of year tests are used in Years 3, 4, and 5. Year 2 and Year 6 will undertake the national SATs so will not complete theTestbase assessments in May.

Children (Y1- Y6) will complete fortnightly arithmetic tests.
When a White Rose unit of work is completed, children complete the White Rose assessment for the unit of work.
The Assessment Timetable can be found in Appendix 3 and on St.Mary's Google Drive.

Assessing Pupils Progress

Teachers will assess the learning of children in the daily maths lessons. This will enable them to plan for future lessons and address any misconceptions within lessons.
Children are formally assessed termly to determine if they are developing, achieving or exceeding expectations for their year group. FFT for each year group will be updated after each termly assessment in accordance with the school's assessment and tracking system.

Where children are working below their year group their progress will be monitored and catch- up programmes implemented.

Reporting to Parents

Teachers will discuss children's progress at parent's evenings in the Autumn and Spring terms.

The end of year report sent to parents will indicate whether the child is developing, has achieved or is exceeding the year group expectations. It will also indicate children's progress and understanding in different areas of maths and state targets for the future.

Parents have the opportunity to discuss their child's end of year report with the teacher in July.

Monitoring and Evaluation

The policy and practice will be monitored and evaluated by the maths subject leader and governing body.
The subject leader will manage resources and will update and advise staff on maths related issues.
The subject leader will analyse data to identify strengths and weaknesses in maths and will liaise with SLT and Governors on priorities going forward.
SLT analyse maths attainment and achievement using Analysing School Performance (ASP).
The Head teacher, Deputy Head teacher and Class teacher monitor the progress of individuals each term.
The subject leader will analyse cohort and gender strengths and weaknesses, which will be reported to SLT and Link Governor.
The Governors Standards Committee monitor progress of all pupils termly with SLT.
The SENDCo will analyse the progress of SEND pupils annually and report to the head teacher and Governors.

18.0 GDPR/ Data Protection

All documents stored are in accordance with legal requirements where appropriate, and guidance from the Records Management Toolkit for Schools.

a) All assessments are kept on Google Docs, which can only be accessed by St Mary's staff and is password protected
b) All paper copies of assessments are kept securely and then shredded.

This policy:

Has Few / No Data Compliance Requirements	Has A Moderate Level of Data Compliance Requirements	Has a High Level Of Data Compliance Requirements
	□	

Appendices
Appendix 1: Calculation Policy
Appendix 2:Maths at St.Mary's School
Appendix 3:Assessment Timetable

This policy will be reviewed in line with the Policy Management cycle.

Year 1 - 6

Calculation Policy

Addition and Subtraction

#MathsEveryoneCan

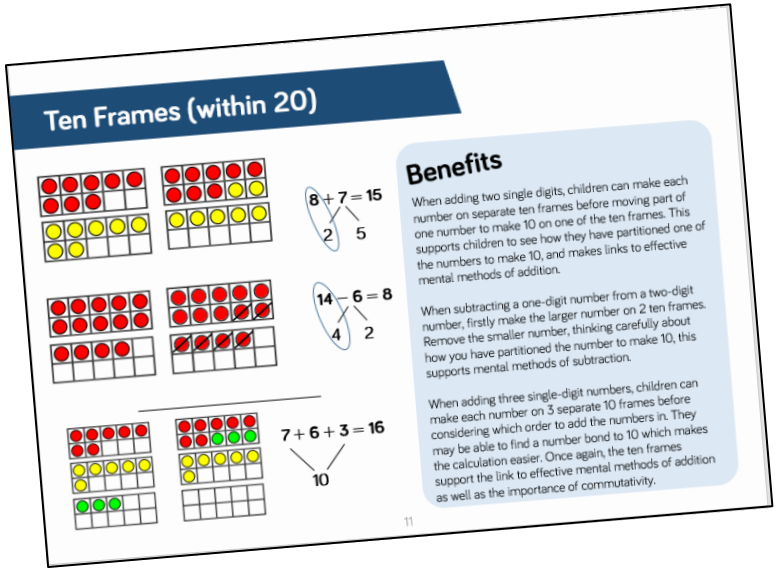
White Rose Maths

Calculation Policy

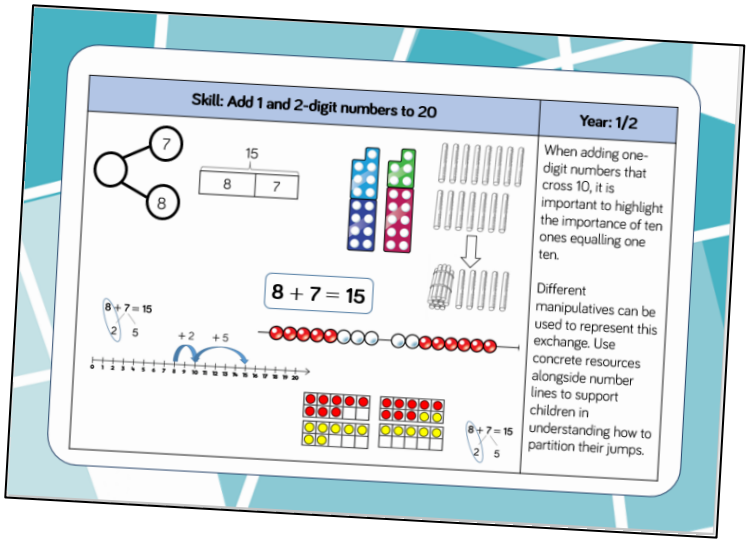
Welcome to the White Rose Maths Calculation Policy.

This document is broken down into addition and subtraction, and multiplication and division.

At the start of each policy, there is an overview of the different models and images that can support the teaching of different concepts. These provide explanations of the benefits of using the models and show the links between different operations.

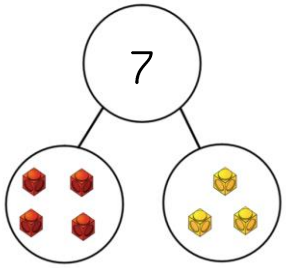


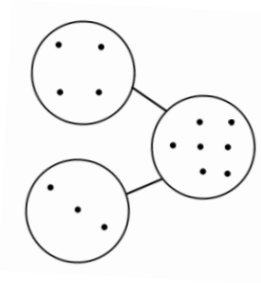
Each operation is then broken down into skills and each skill has a dedicated page showing the different models and images that could be used to effectively teach that concept.

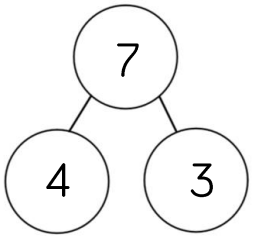


There is an overview of skills linked to year groups to support consistency through out school. A glossary of terms is provided at the end of the calculation policy to support understanding of the key language used to teach the four operations.

Part-Whole Model





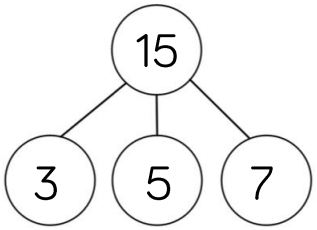


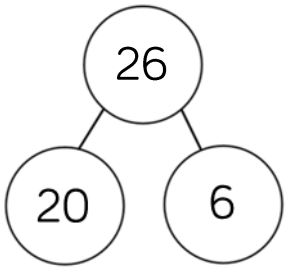
$7 = 4 + 3$

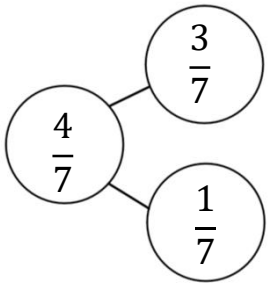
$7 = 3 + 4$

$7 - 3 = 4$

$7 - 4 = 3$







Benefits

This part-whole model supports children in their understanding of aggregation and partitioning. Due to its shape, it can be referred to as a cherry part-whole model.

When the parts are complete and the whole is empty, children use aggregation to 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.

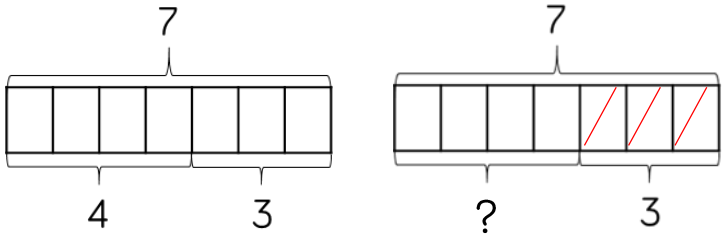
Part-whole models can be used to partition a number into two or more parts, or to help children to partition a number into tens and ones or other place value columns.

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

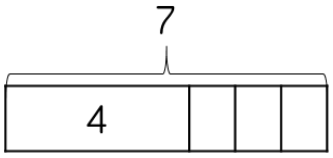
Bar Model (single)

Concrete

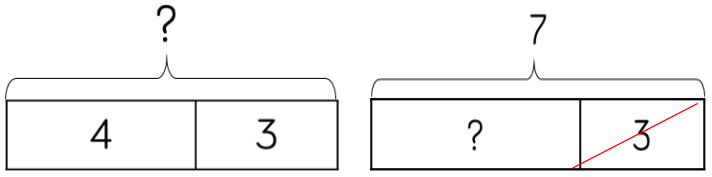
Discrete

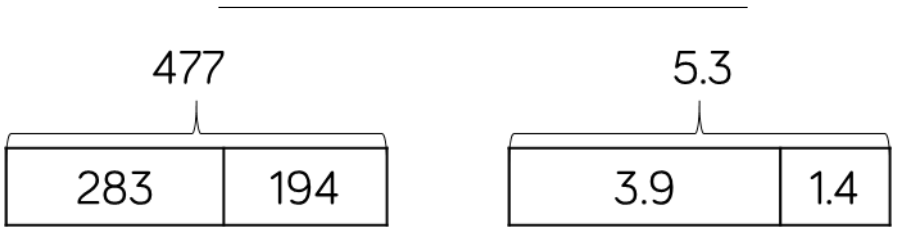


Combination



Continuous





Benefits

The single bar model is another type of a part-whole model that can support children in representing calculations to help them unpick the structure.

Cubes and counters can be used in a line as a concrete representation of the bar model.

Discrete bar models are a good starting point with smaller numbers. Each box represents one whole.

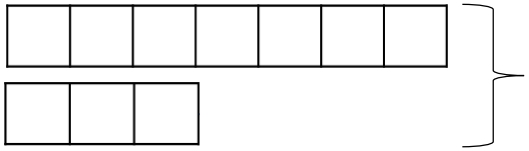
The combination bar model can support children to calculate by counting on from the larger number. It is a good stepping stone towards the continuous bar model.

Continuous bar models are useful for a range of values. Each rectangle represents a number. The question mark indicates the value to be found.

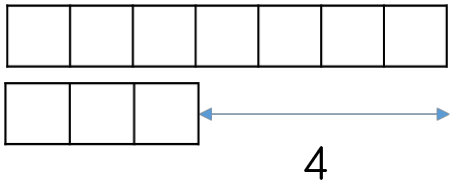
In KS2, children can use bar models to represent larger numbers, decimals and fractions.

Bar Model (multiple)

Discrete

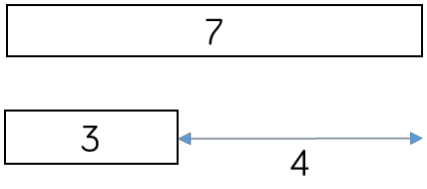


$7 + 3 = 10$

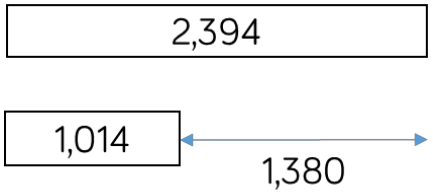


$7 - 3 = 4$

Continuous



$7 - 3 = 4$



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

Benefits

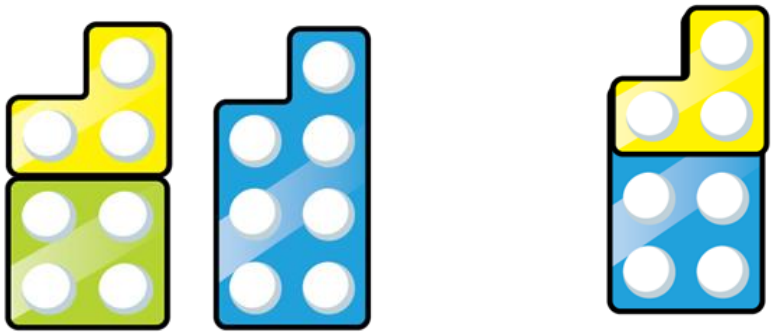
The multiple bar model is a good way to compare quantities whilst still unpicking the structure.

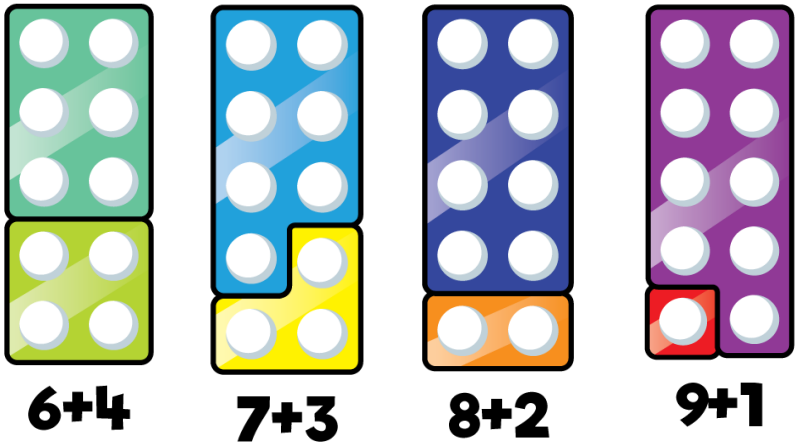
Two or more bars can be drawn, with a bracket labelling the whole positioned on the right hand side of the bars. Smaller numbers can be represented with a discrete bar model whilst continuous bar models are more effective for larger numbers.

Multiple bar models can also be used to represent the difference in subtraction. An arrow can be used to model the difference.

When working with smaller numbers, children can use cubes and a discrete model to find the difference. This supports children to see how counting on can help when finding the difference.

Number Shapes





Benefits

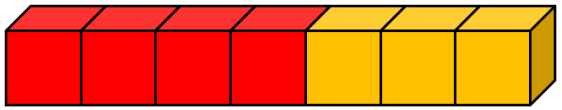
Number shapes can be useful to support children to subitise numbers as well as explore aggregation, partitioning and number bonds.

When adding numbers, children can see how the parts come together making a whole. As children use number shapes more often, they can start to subitise the total due to their familiarity with the shape of each number.

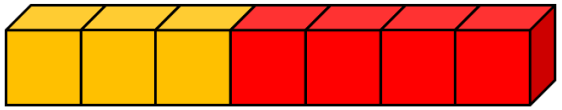
When subtracting numbers, children can start with the whole and then place one of the parts on top of the whole to see what part is missing. Again, children will start to be able to subitise the part that is missing due to their familiarity with the shapes.

Children can also work systematically to find number bonds. As they increase one number by 1, they can see that the other number decreases by 1 to find all the possible number bonds for a number.

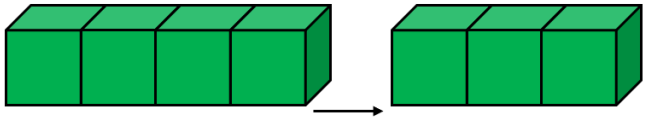
Cubes



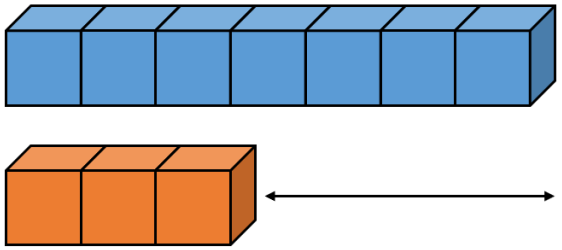
$7 = 4 + 3$



$7 = 3 + 4$



$7 - 3 = 4$



$7 - 3 = 4$

Benefits

Cubes can be useful to support children with the addition and subtraction of one-digit numbers.

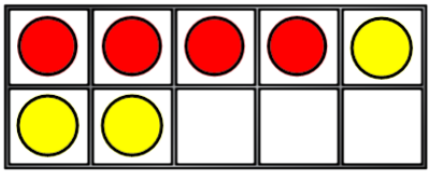
When adding numbers, children can see how the parts come together to make a whole. Children could use two different colours of cubes to represent the numbers before putting them together to create the whole.

When subtracting numbers, children can start with the whole and then remove the number of cubes that they are subtracting in order to find the answer. This model of subtraction is reduction, or take away.

Cubes can also be useful to look at subtraction as difference. Here, both numbers are made and then lined up to find the difference between the numbers.

Cubes are useful when working with smaller numbers but are less efficient with larger numbers as they are difficult to subitise and children may miscount them.

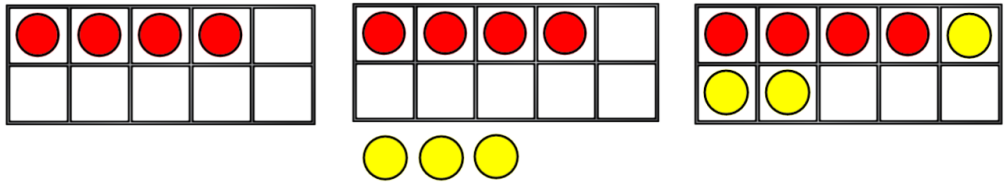
Ten Frames (within 10)



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

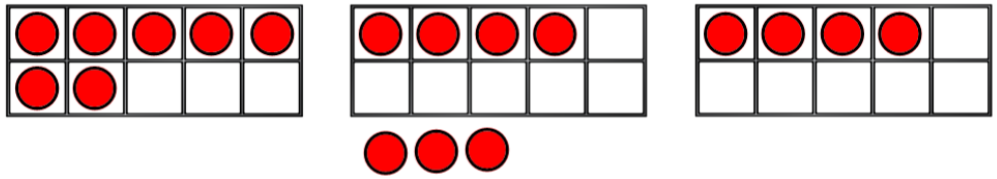
4 is a part.
3 is a part.
7 is the whole.

First Then Now



$4 + 3 = 7$

First Then Now



$7 - 3 = 4$

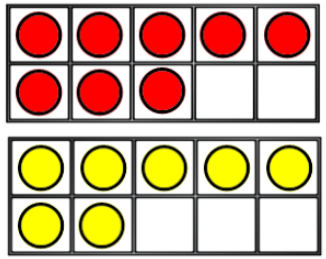
Benefits

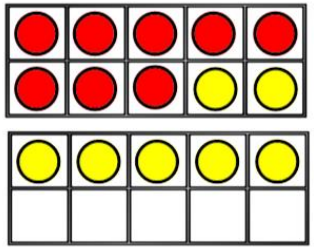
When adding and subtracting within 10, the ten frame can support children to understand the different structures of addition and subtraction.

Using the language of parts and wholes represented by objects on the ten frame introduces children to aggregation and partitioning.
Aggregation is a form of addition where parts are combined together to make a whole. Partitioning is a form of subtraction where the whole is split into parts. Using these structures, the ten frame can enable children to find all the number bonds for a number.

Children can also use ten frames to look at augmentation (increasing a number) and take-away (decreasing a number). This can be introduced through a first, then, now structure which shows the change in the number in the 'then' stage. This can be put into a story structure to help children understand the change e.g. First, there were 7 cars. Then, 3 cars left. Now, there are 4 cars.

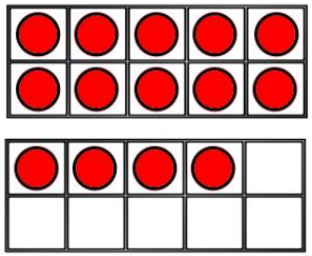
Ten Frames (within 20)

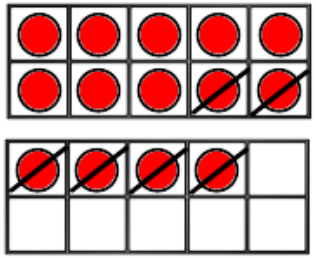




$8 + 7 = 15$

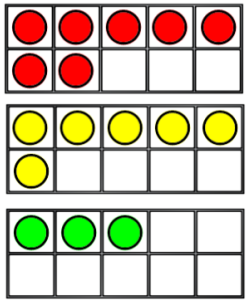
2 5

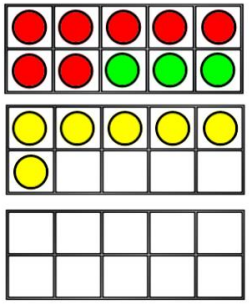




$14 - 6 = 8$

4 2





$7 + 6 + 3 = 16$

10

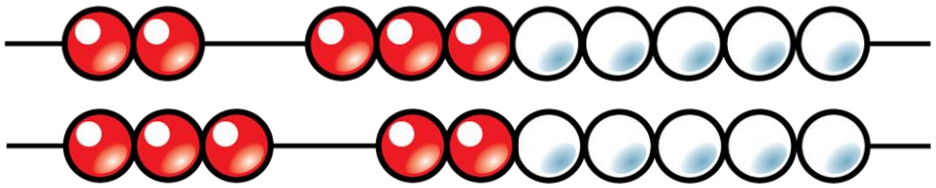
Benefits

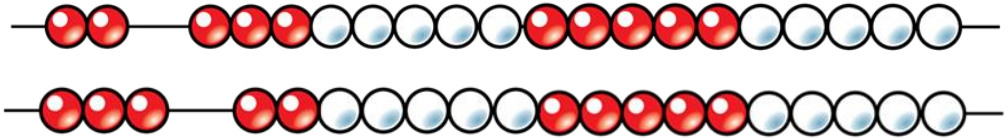
When adding two single digits, children can make each number on separate ten frames before moving part of one number to make 10 on one of the ten frames. This supports children to see how they have partitioned one of the numbers to make 10, and makes links to effective mental methods of addition.

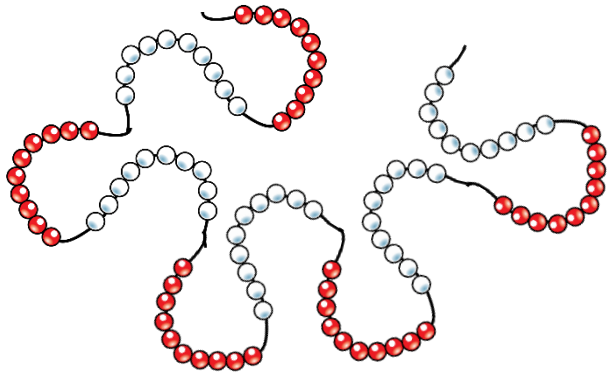
When subtracting a one-digit number from a two-digit number, firstly make the larger number on 2 ten frames. Remove the smaller number, thinking carefully about how you have partitioned the number to make 10, this supports mental methods of subtraction.

When adding three single-digit numbers, children can make each number on 3 separate 10 frames before considering which order to add the numbers in. They may be able to find a number bond to 10 which makes the calculation easier. Once again, the ten frames support the link to effective mental methods of addition as well as the importance of commutativity.

Bead Strings







Benefits

Different sizes of bead strings can support children at different stages of addition and subtraction.

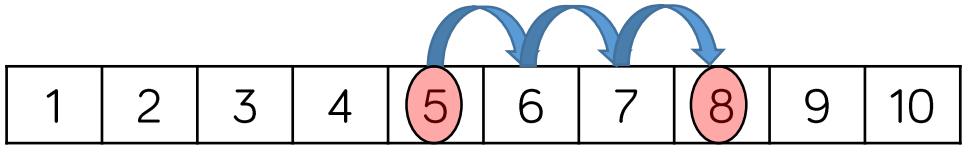
Bead strings to 10 are very effective at helping children to investigate number bonds up to 10.
They can help children to systematically find all the number bonds to 10 by moving one bead at a time to see the different numbers they have partitioned the 10 beads into e.g. 2 + 8 = 10, move one bead, 3 + 7 = 10.

Bead strings to 20 work in a similar way but they also group the beads in fives. Children can apply their knowledge of number bonds to 10 and see the links to number bonds to 20.

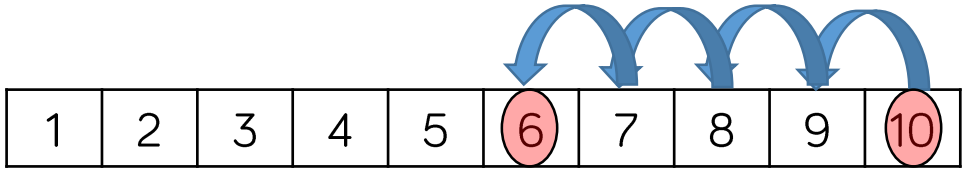
Bead strings to 100 are grouped in tens and can support children in number bonds to 100 as well as helping when adding by making ten. Bead strings can show a link to adding to the next 10 on number lines which supports a mental method of addition.

Number Tracks

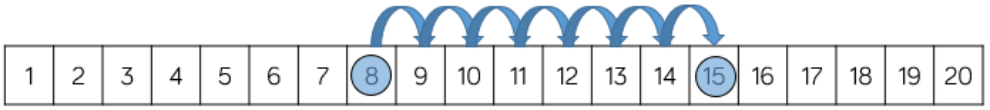
$5 + 3 = 8$



$10 - 4 = 6$



$8 + 7 = 15$



Benefits

Number tracks are useful to support children in their understanding of augmentation and reduction.

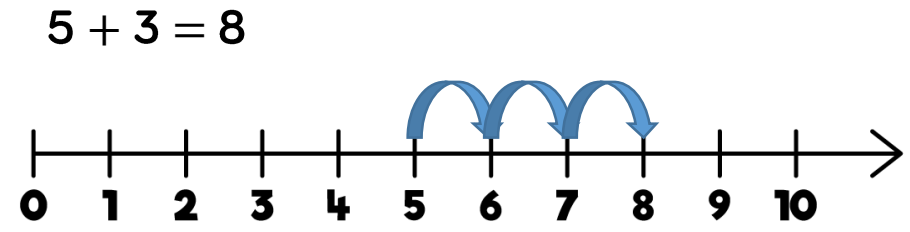
When adding, children count on to find the total of the numbers. On a number track, children can place a counter on the starting number and then count on to find the total.

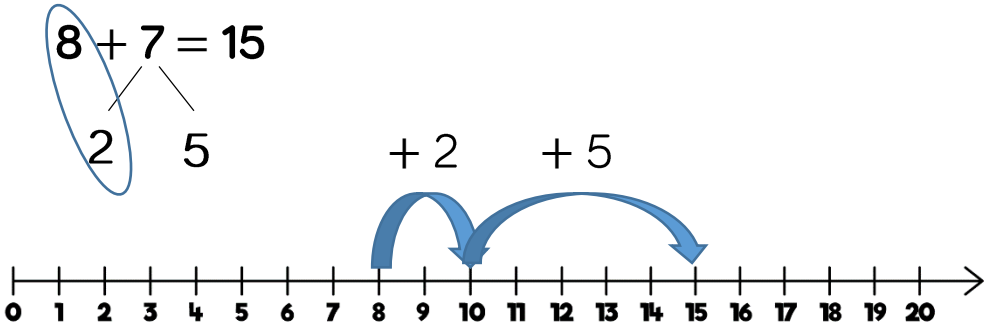
When subtracting, children count back to find their answer. They start at the minuend and then take away the subtrahend to find the difference between the numbers.

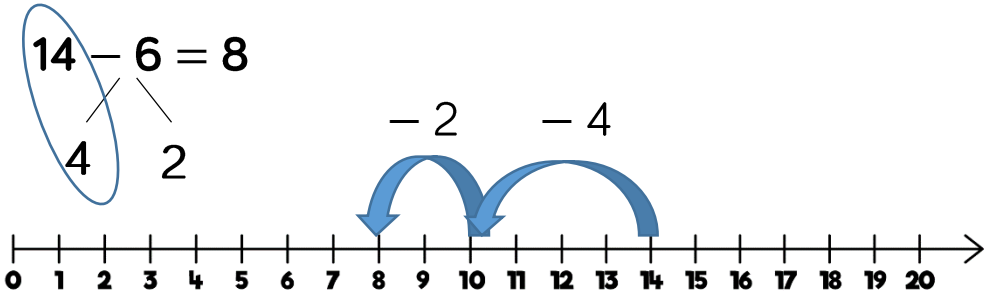
Number tracks can work well alongside ten frames and bead strings which can also model counting on or counting back.

Playing board games can help children to become familiar with the idea of counting on using a number track before they move on to number lines.

Number Lines (labelled)







Benefits

Labelled number lines support children in their understanding of addition and subtraction as augmentation and reduction.

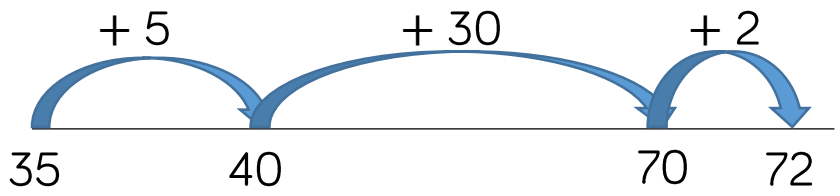
Children can start by counting on or back in ones, up or down the number line. This skill links directly to the use of the number track.

Progressing further, children can add numbers by jumping to the nearest 10 and then jumping to the total. This links to the making 10 method which can also be supported by ten frames. The smaller number is partitioned to support children to make a number bond to 10 and to then add on the remaining part.

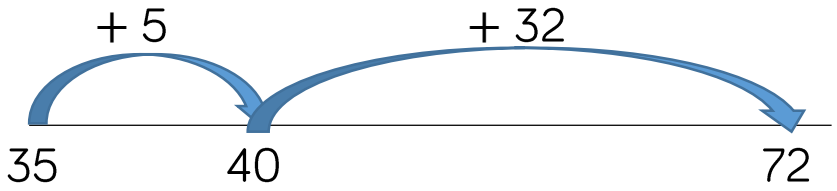
Children can subtract numbers by firstly jumping to the nearest 10. Again, this can be supported by ten frames so children can see how they partition the smaller number into the two separate jumps.

Number Lines (blank)

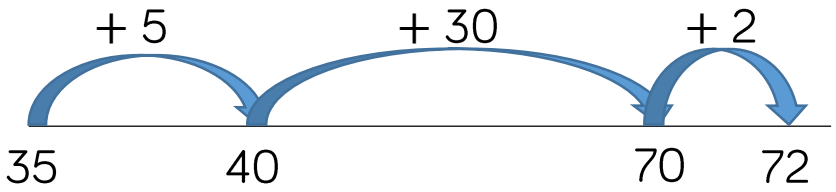
35 + 37 = 72



35 + 37 = 72



72 – 35 = 37



Benefits

Blank number lines provide children with a structure to add and subtract numbers in smaller parts.

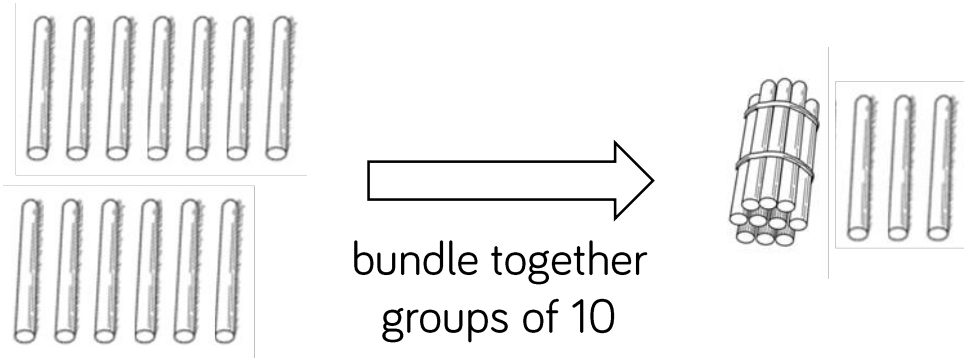
Developing from labelled number lines, children can add by jumping to the nearest 10 and then adding the rest of the number either as a whole or by adding the tens and ones separately.

Children may also count back on a number line to subtract, again by jumping to the nearest 10 and then subtracting the rest of the number.

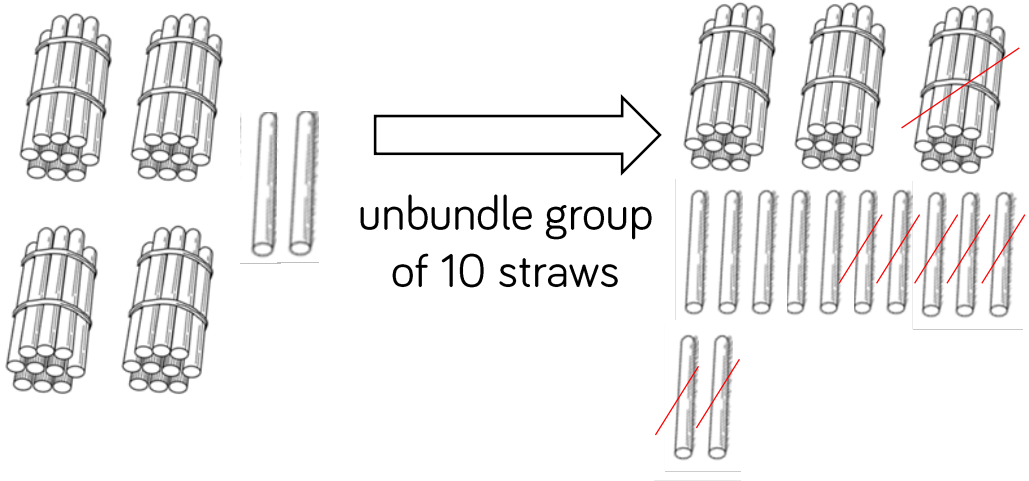
Blank number lines can also be used effectively to help children subtract by finding the difference between numbers. This can be done by starting with the smaller number and then counting on to the larger number. They then add up the parts they have counted on to find the difference between the numbers.

Straws

$7 + 6 = 13$



$42 - 17 = 25$



Benefits

Straws are an effective way to support children in their understanding of exchange when adding and subtracting 2-digit numbers.

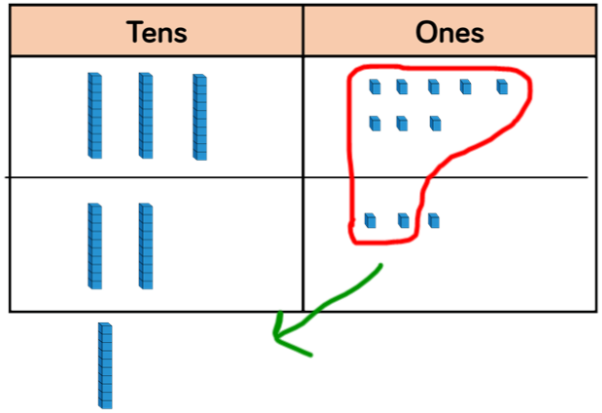
Children can be introduced to the idea of bundling groups of ten when adding smaller numbers and when representing 2-digit numbers. Use elastic bands or other ties to make bundles of ten straws.

When adding numbers, children bundle a group of 10 straws to represent the exchange from 10 ones to 1 ten. They then add the individual straws (ones) and bundles of straws (tens) to find the total.

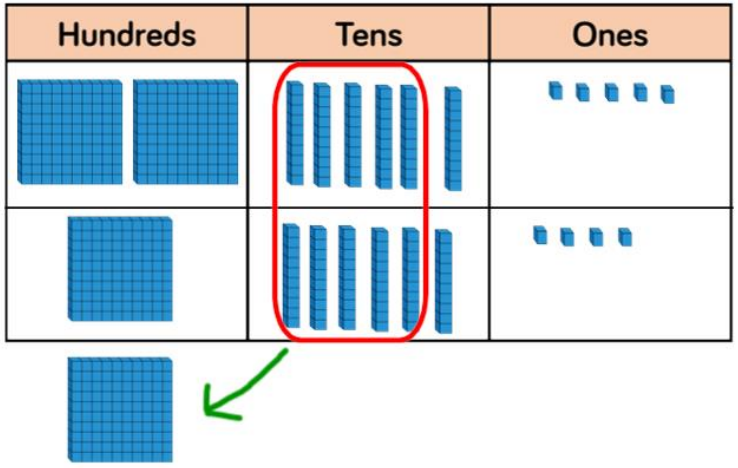
When subtracting numbers, children unbundle a group of 10 straws to represent the exchange from 1 ten to 10 ones.

Straws provide a good stepping stone to adding and subtracting with Base 10/Dienes.

Base 10/Dienes (addition)



$$\begin{array}{r} 38 \\ +\ 23 \\ \hline 61 \\ \hline 1 \end{array}$$



$$\begin{array}{r} 265 \\ +\ 164 \\ \hline 429 \\ \hline 1 \end{array}$$

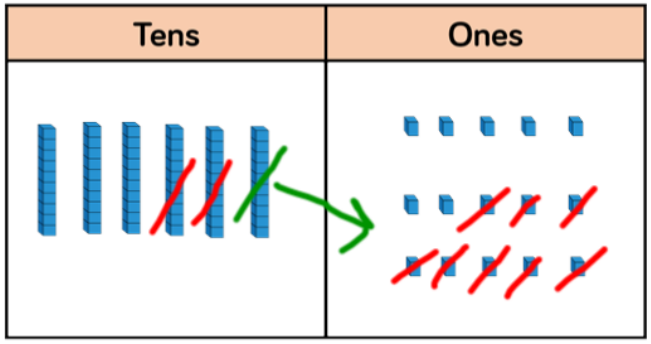
Benefits

Using Base 10 or Dienes is an effective way to support children's understanding of column addition. It is 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.

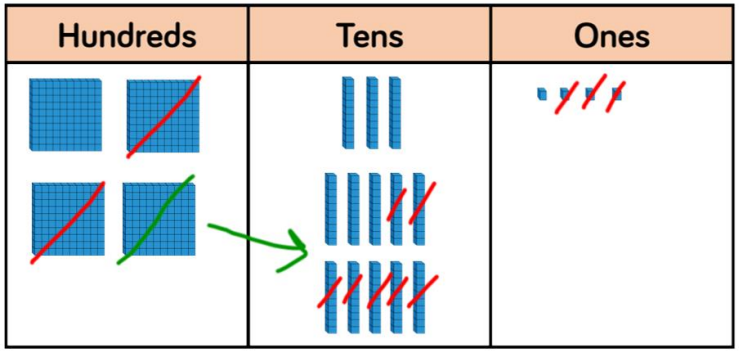
Children should first add without an exchange before moving on to addition with exchange.. The representation becomes less efficient with larger numbers due to the size of Base 10. In this case, place value counters may be the better model to use.

When adding, always start with the smallest place value column. Here are some questions to support children.
How many ones are there altogether?
Can we make an exchange? (Yes or No)
How many do we exchange? (10 ones for 1 ten, show exchanged 10 in tens column by writing 1 in column)
How many ones do we have left? (Write in ones column)
Repeat for each column.

Base 10/Dienes (subtraction)



$$\begin{array}{r} {}^{5}\not{6}\,{}^{1}\not{5} \\ -\ 28 \\ \hline 37 \end{array}$$



$$\begin{array}{r} {}^{3}\not{4}\,{}^{1}\not{3}5 \\ -\ 273 \\ \hline 262 \end{array}$$

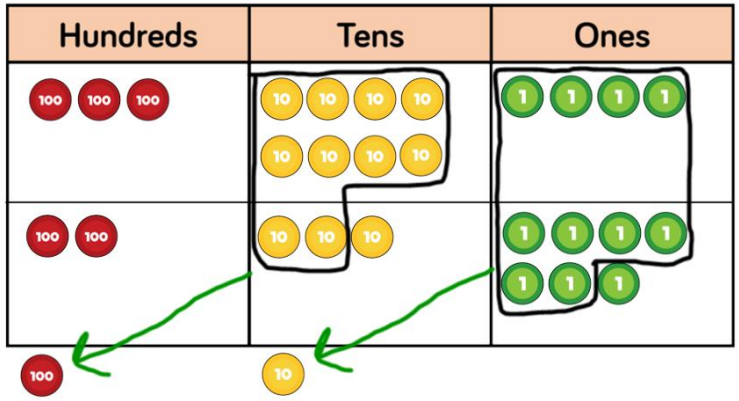
Benefits

Using Base 10 or Dienes is an effective way to support children's understanding of column subtraction. It is 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.

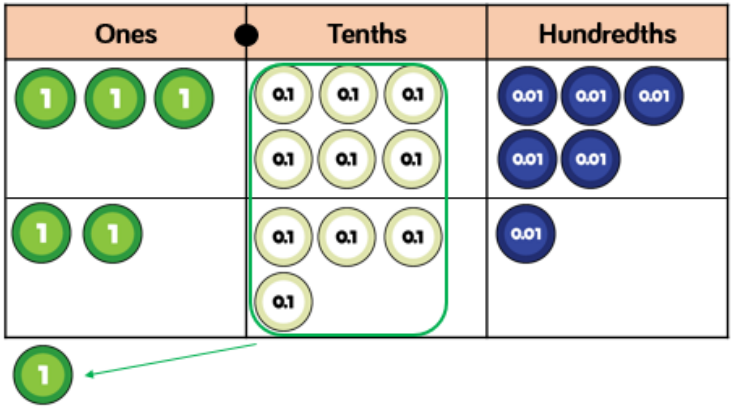
Children should first subtract without an exchange before moving on to subtraction with exchange. When building the model, children should just make the minuend using Base 10, they then subtract the subtrahend. Highlight this difference to addition to avoid errors by making both numbers. Children start with the smallest place value column. When there are not enough ones/tens/hundreds to subtract in a column, children need to move to the column to the left and exchange e.g. exchange 1 ten for 10 ones. They can then subtract efficiently.

This model is efficient with up to 4-digit numbers. Place value counters are more efficient with larger numbers and decimals.

Place Value Counters (addition)



$$\begin{array}{r} 384 \\ +\ 237 \\ \hline 621 \\ \hline 1\ 1 \end{array}$$



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

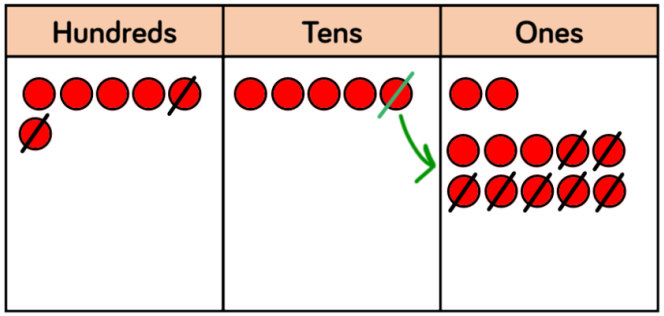
Benefits

Using place value counters is an effective way to support children's understanding of column addition. It is important that children write out their calculations alongside using or drawing counters so they can see the clear links between the written method and the model.

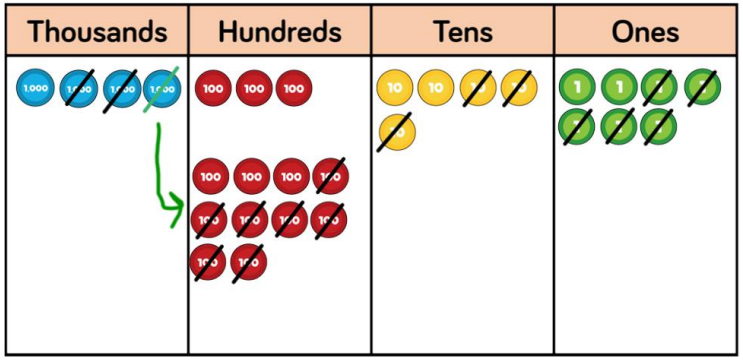
Children should first add without an exchange before moving on to addition with exchange. Different place value counters can be used to represent larger numbers or decimals. If you don't have place value counters, use normal counters on a place value grid to enable children to experience the exchange between columns.

When adding money, children can also use coins to support their understanding. It is important that children consider how the coins link to the written calculation especially when adding decimal amounts.

Place Value Counters (Subtraction)



$$\begin{array}{r} {}^{4}\cancel{6}\,{}^{1}\cancel{5}2 \\ -\ 207 \\ \hline 445 \end{array}$$



$$\begin{array}{r} {}^{3}\cancel{4}\,{}^{1}357 \\ -\ 2735 \\ \hline 1622 \end{array}$$

Benefits

Using place value counters is an effective way to support children's understanding of column subtraction. It is important that children write out their calculations alongside using or drawing counters so they can see the clear links between the written method and the model.

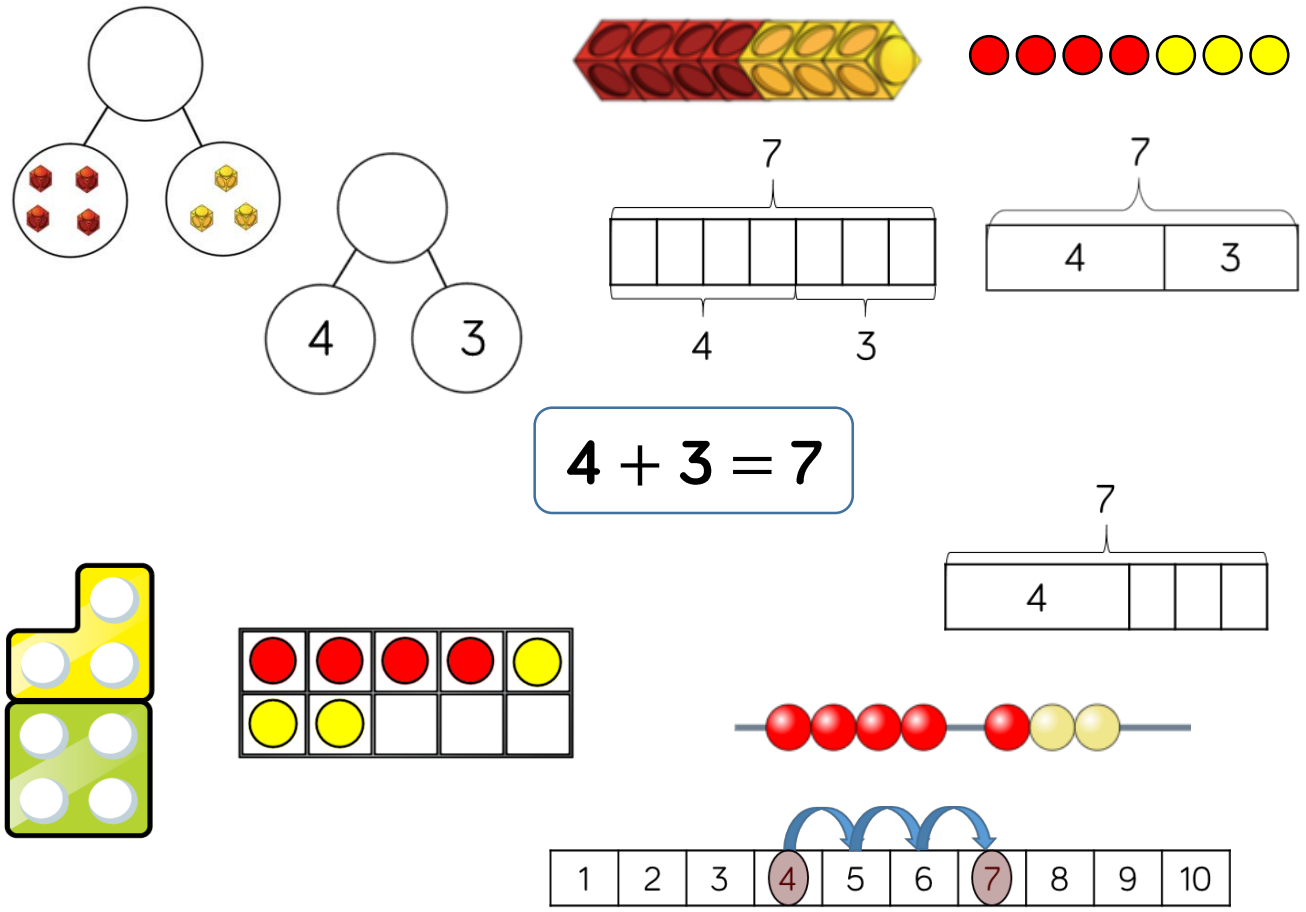
Children should first subtract without an exchange before moving on to subtraction with exchange. If you don't have place value counters, use normal counters on a place value grid to enable children to experience the exchange between columns.

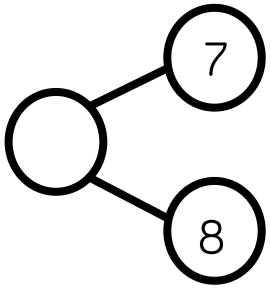
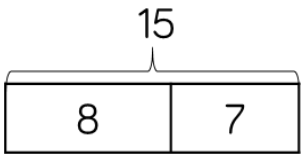
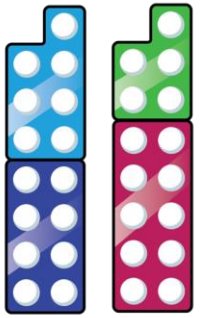
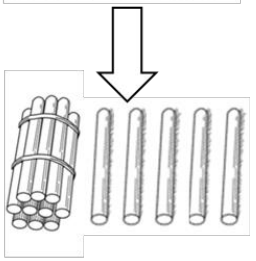
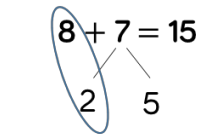
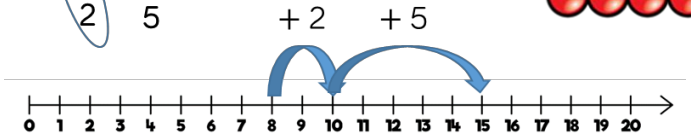
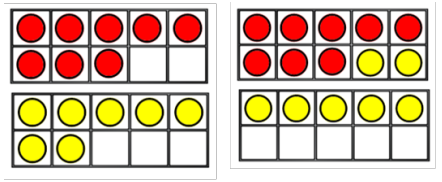
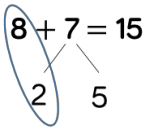
When building the model, children should just make the minuend using counters, they then subtract the subtrahend. Children start with the smallest place value column. When there are not enough ones/tens/hundreds to subtract in a column, children need to move to the column to the left and exchange e.g. exchange 1 ten for 10 ones. They can then subtract efficiently.

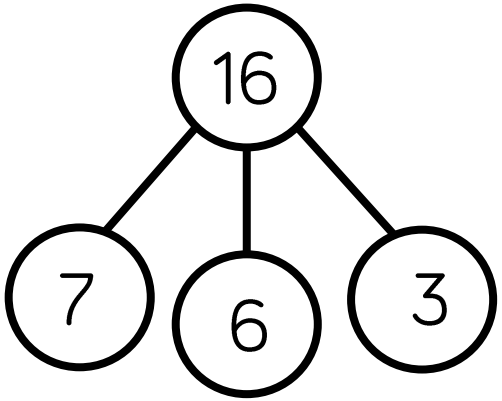
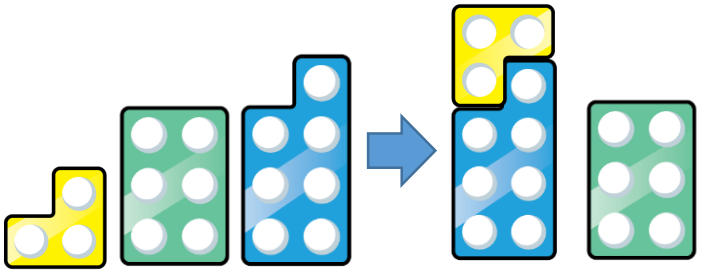
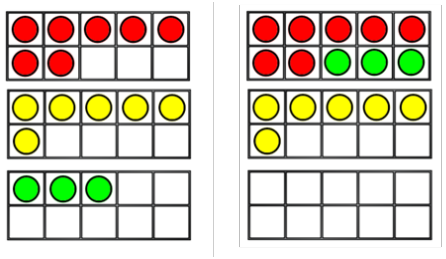
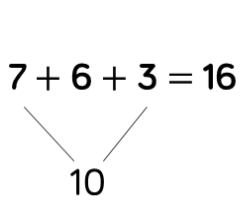
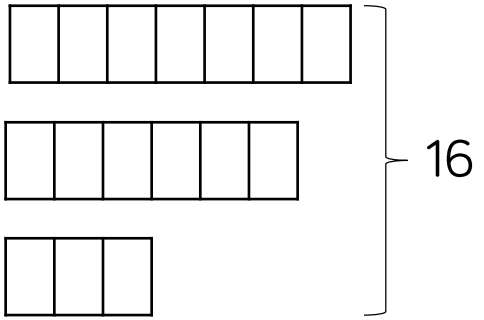
Addition

Skill	Year	Representations and models	
Add two 1-digit numbers to 10	1	Part-whole model Bar model Number shapes	Ten frames (within 10) Bead strings (10) Number tracks
Add 1 and 2-digit numbers to 20	1	Part-whole model Bar model Number shapes Ten frames (within 20)	Bead strings (20) Number tracks Number lines (labelled) Straws
Add three 1-digit numbers	2	Part-whole model Bar model	Ten frames (within 20) Number shapes
Add 1 and 2-digit numbers to 100	2	Part-whole model Bar model Number lines (labelled)	Number lines (blank) Straws Hundred square

Skill	Year	Representations and models	
Add two 2-digit numbers	2	Part-whole model Bar model Number lines (blank) Straws	Base 10 Place value counters Column addition
Add with up to 3-digits	3	Part-whole model Bar model	Base 10 Place value counters Column addition
Add with up to 4-digits	4	Part-whole model Bar model	Base 10 Place value counters Column addition
Add with more than 4 digits	5	Part-whole model Bar model	Place value counters Column addition
Add with up to 3 decimal places	5	Part-whole model Bar model	Place value counters Column addition

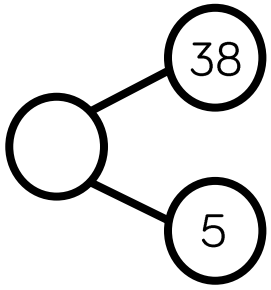
Skill: Add 1-digit numbers within 10	Year: 1
	When adding numbers to 10, children can explore both aggregation and augmentation. The part-whole model, discrete and continuous bar model, number shapes and ten frame support aggregation. The combination bar model, ten frame, bead string and number track all support augmentation.

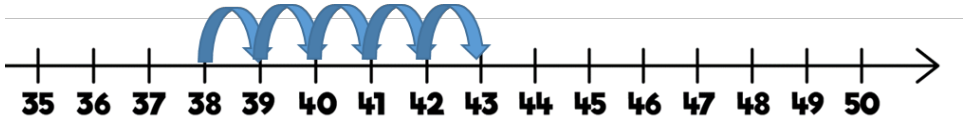
Skill: Add 1 and 2-digit numbers to 20	Year: 1/2
     $8 + 7 = 15$     	When adding one-digit numbers that cross 10, it is important to highlight the importance of ten ones equalling one ten. Different manipulatives can be used to represent this exchange. Use concrete resources alongside number lines to support children in understanding how to partition their jumps.

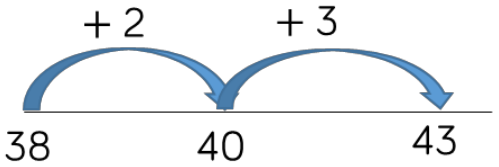
Skill: Add three 1-digit numbers	Year: 2
  $7 + 6 + 3 = 16$   	When adding three 1-digit numbers, children should be encouraged to look for number bonds to 10 or doubles to add the numbers more efficiently. This supports children in their understanding of commutativity. Manipulatives that highlight number bonds to 10 are effective when adding three 1-digit numbers.

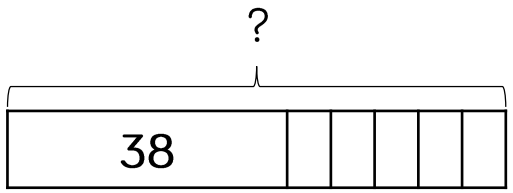
Skill: Add 1-digit and 2-digit numbers to 100

Year: 2/3



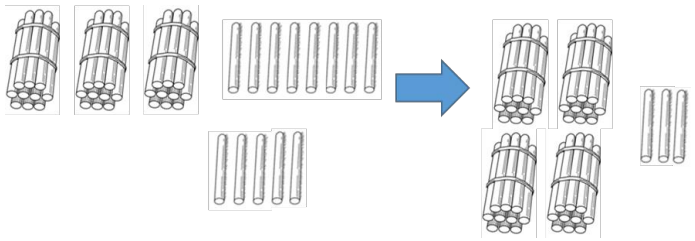






38 + 5 = 43

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



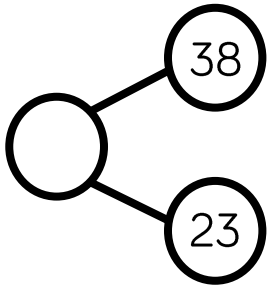
When adding single digits to a two-digit number, children should be encouraged to count on from the larger number.

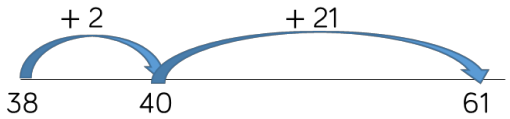
They should also apply their knowledge of number bonds to add more efficiently e.g. 8 + 5 = 13 so 38 + 5 = 43.

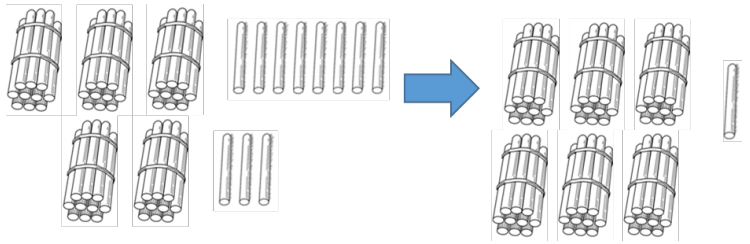
Hundred squares and straws can support children to find the number bond to 10.

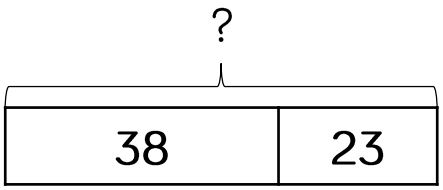
Skill: Add two 2-digit numbers to 100

Year: 2/3

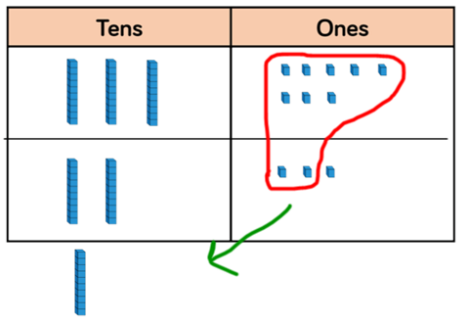




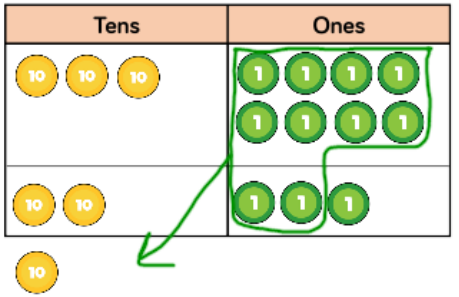




38 + 23 = 61

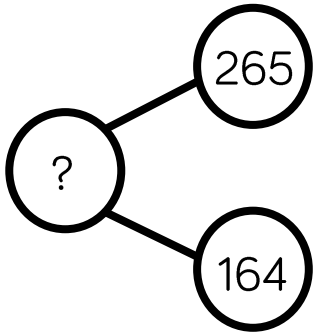
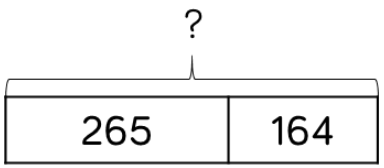
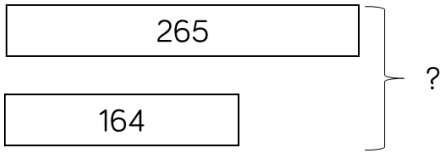
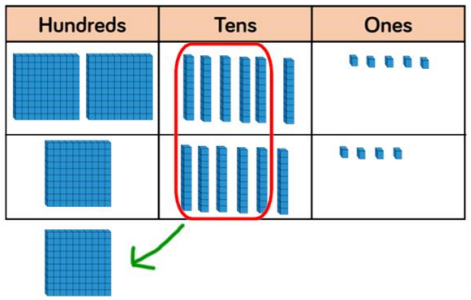
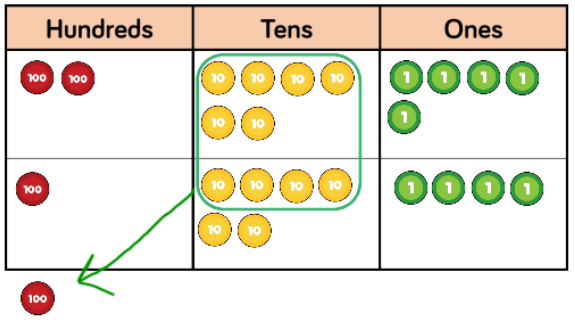


$$\begin{array}{r} 38 \\ +\ 23 \\ \hline 61 \\ \hline 1 \end{array}$$



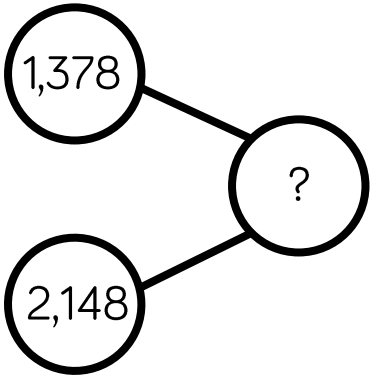
At this stage, encourage children to use the formal column method when calculating alongside straws, base 10 or place value counters. As numbers become larger, straws become less efficient.

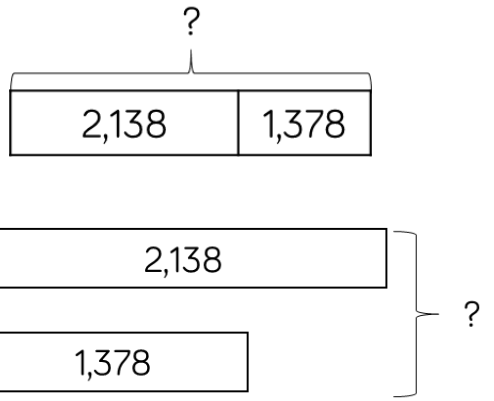
Children can also use a blank number line to count on to find the total. Encourage them to jump to multiples of 10 to become more efficient.

Skill: Add numbers with up to 3 digits	Year: 3
   **265 + 164 = 429**  265 + 164 429 1 	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: Add numbers with up to 4 digits

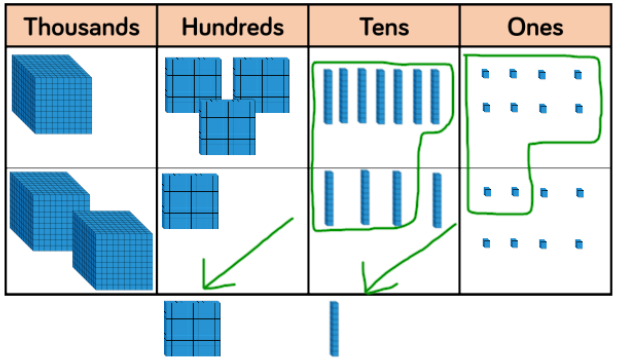
Year: 4

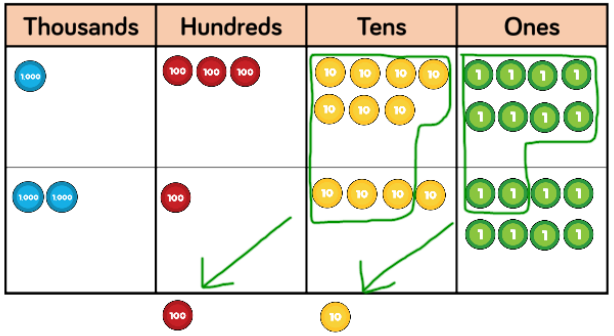




	1	3	7	8
+	2	1	4	8
	3	5	2	6
		1	1	

1,378 + 2,148 = 3,526





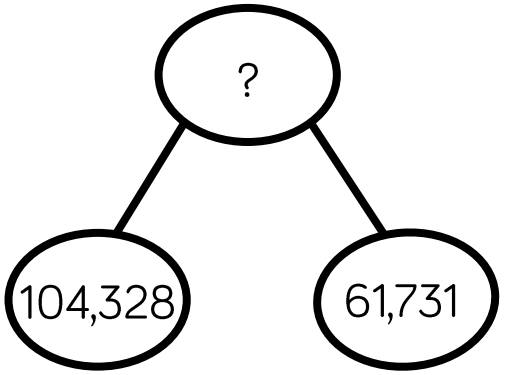
Base 10 and place value counters are the most effective manipulatives when adding numbers with up to 4 digits.

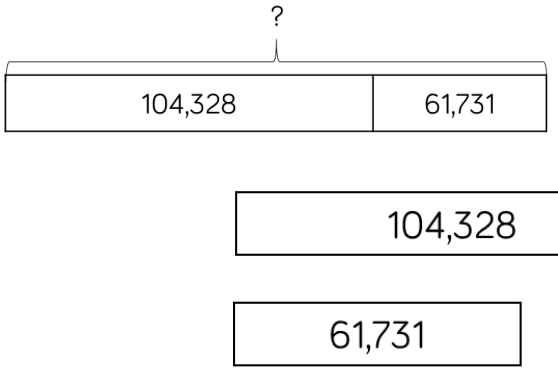
Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.

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

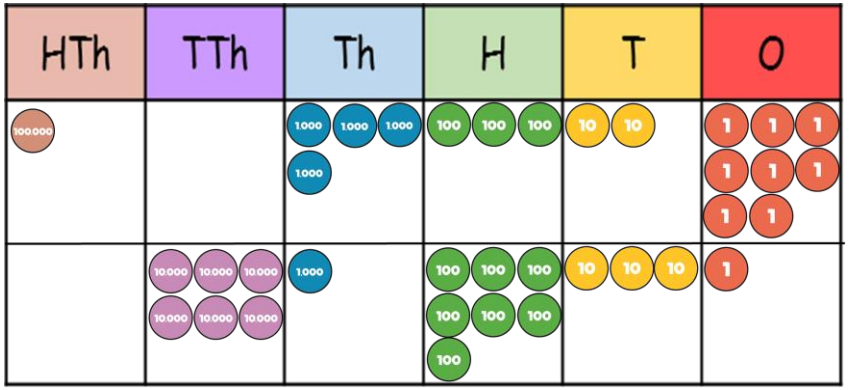
Skill: Add numbers with more than 4 digits

Year: 5/6





104,328 + 61,731 = 166,059



1	0	4	3	2	8
+	6	1	7	3	1
1	6	6	0	5	9

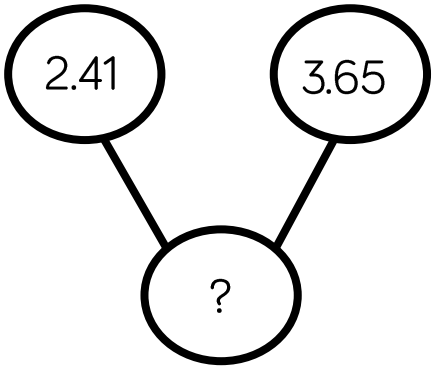
1

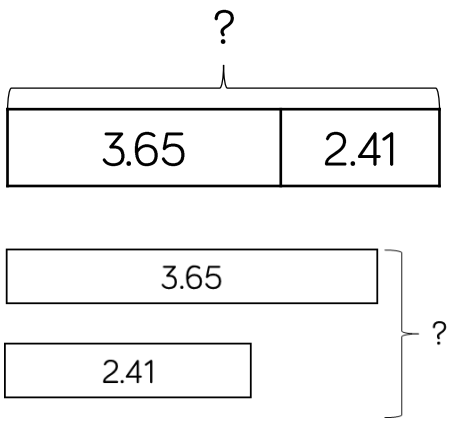
Place value counters or plain counters on a place value grid are the most effective concrete resources when adding numbers with more than 4 digits.

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

Skill: Add with up to 3 decimal places

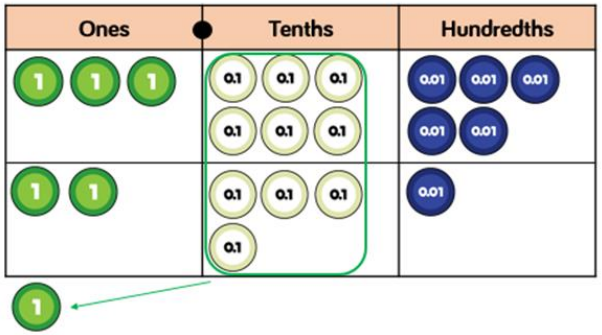
Year: 5

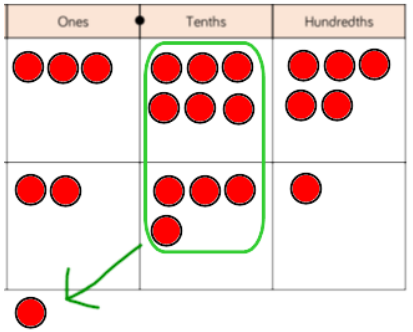




$$\begin{array}{r} 3.65 \\ +\ 2.41 \\ \hline 6.06 \\ \hline 1 \end{array}$$

3.65 + 2.41 = 6.06





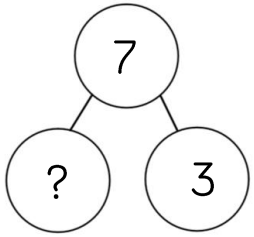
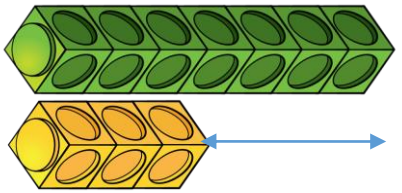
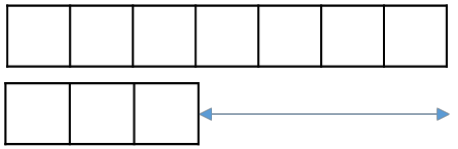
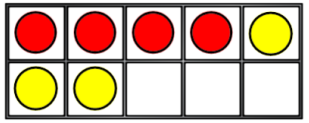
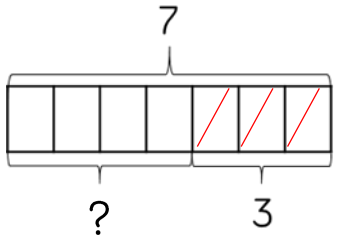
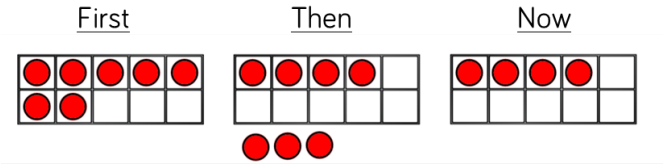
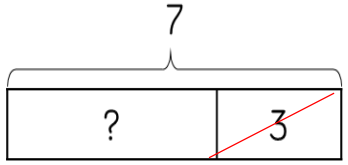
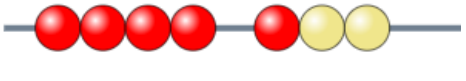
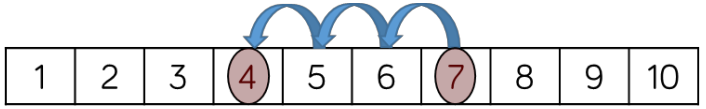
Place value counters and plain counters on a place value grid are the most effective manipulatives when adding decimals with 1, 2 and then 3 decimal places.

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.

Subtraction

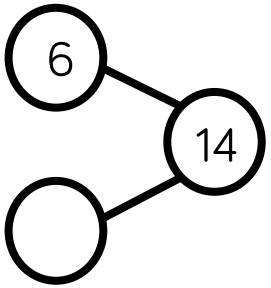
Skill	Year	Representations and models	
Subtract two 1-digit numbers to 10	1	Part-whole model Bar model Number shapes	Ten frames (within 10) Bead strings (10) Number tracks
Subtract 1 and 2-digit numbers to 20	1	Part-whole model Bar model Number shapes Ten frames (within 20)	Bead string (20) Number tracks Number lines (labelled) Straws
Subtract 1 and 2-digit numbers to 100	2	Part-whole model Bar model Number lines (labelled)	Number lines (blank) Straws Hundred square
Subtract two 2-digit numbers	2	Part-whole model Bar model Number lines (blank) Straws	Base 10 Place value counters Column subtraction

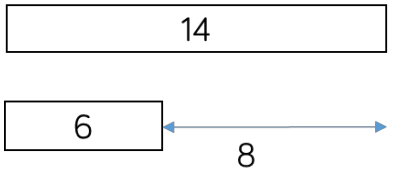
Skill	Year	Representations and models	
Subtract with up to 3-digits	3	Part-whole model Bar model	Base 10 Place value counters Column subtraction
Subtract with up to 4-digits	4	Part-whole model Bar model	Base 10 Place value counters Column subtraction
Subtract with more than 4 digits	5	Part-whole model Bar model	Place value counters Column subtraction
Subtract with up to 3 decimal places	5	Part-whole model Bar model	Place value counters Column subtraction

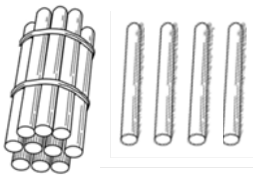
Skill: Subtract 1-digit numbers within 10	Year: 1
     $7 - 3 = 4$     	Part-whole models, bar models, ten frames and number shapes support partitioning. Ten frames, number tracks, single bar models and bead strings support reduction. Cubes and bar models with two bars can support finding the difference.

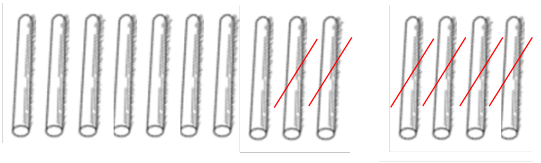
Skill: Subtract 1 and 2-digit numbers to 20

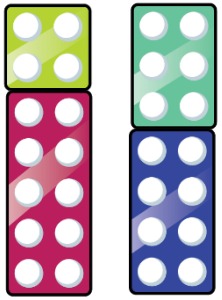
Year: 1/2



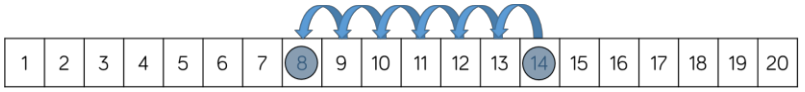


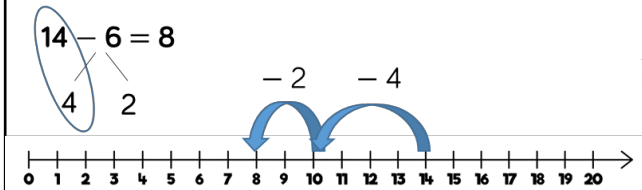


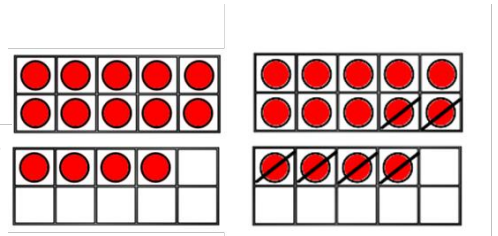


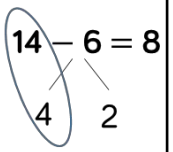


14 – 6 = 8







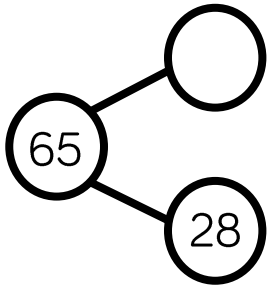


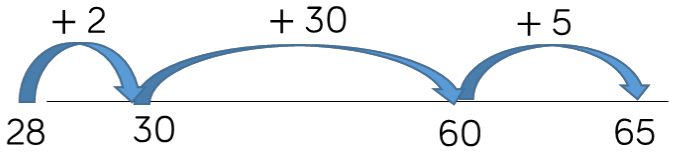
When subtracting one-digit numbers that cross 10, it is important to highlight the importance of ten ones equalling one ten.

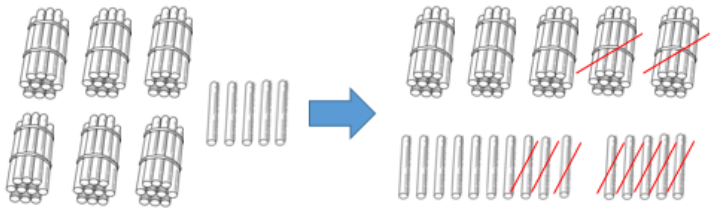
Children should be encouraged to find the number bond to 10 when partitioning the subtracted number. Ten frames, number shapes and number lines are particularly useful for this.

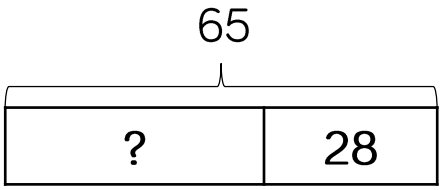
Skill: Subtract 1 and 2-digit numbers to 100

Year: 2

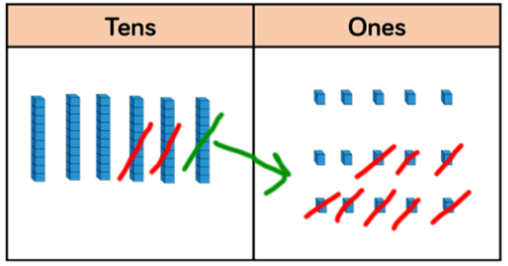




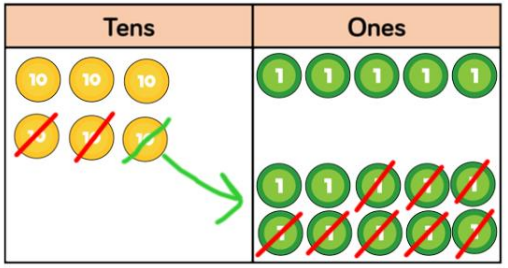




$$65 - 28 = 37$$



$$\begin{array}{r} {}^{5}\not{6}\,{}^{1}\not{5} \\ -\ 2\ 8 \\ \hline 3\ 7 \end{array}$$

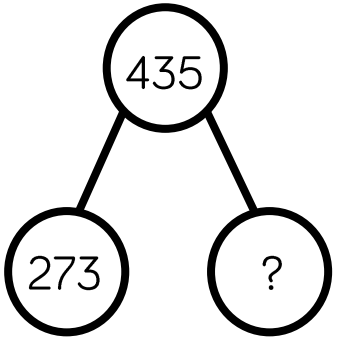


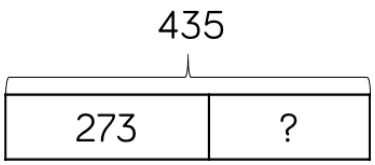
At this stage, encourage children to use the formal column method when calculating alongside straws, base 10 or place value counters. As numbers become larger, straws become less efficient.

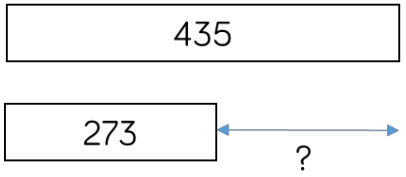
Children can also use a blank number line to count on to find the difference. Encourage them to jump to multiples of 10 to become more efficient.

Skill: Subtract numbers with up to 3 digits

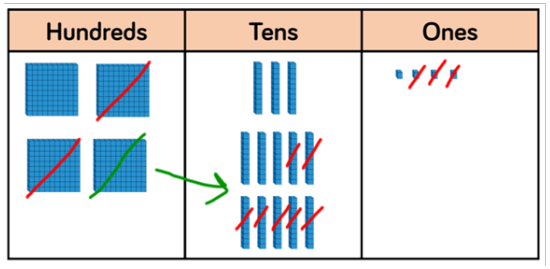
Year: 3



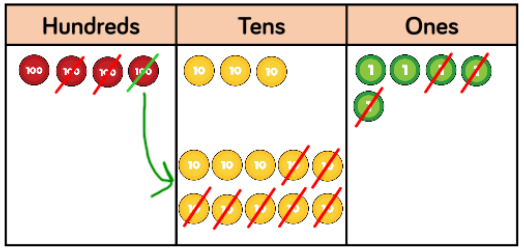




435 − 273 = 262



$$\begin{array}{r} {}^{3}\not{4}\,{}^{1}\not{3}5 \\ -\ 273 \\ \hline 262 \end{array}$$

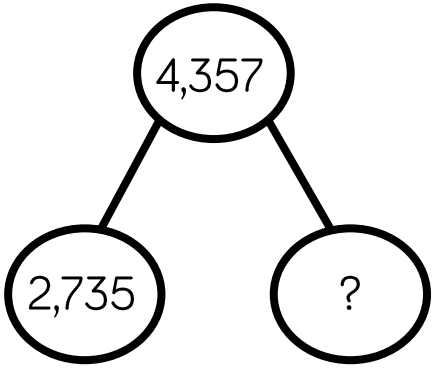


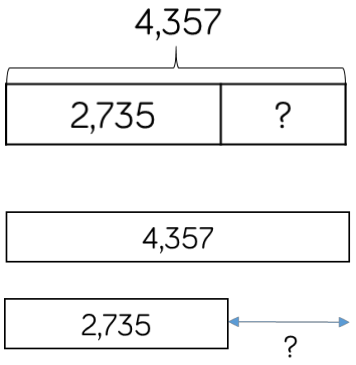
Base 10 and place value counters are the most effective manipulative when subtracting numbers with up to 3 digits.

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.

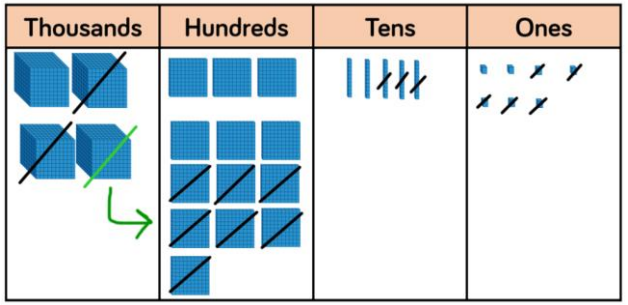
Skill: Subtract numbers with up to 4 digits

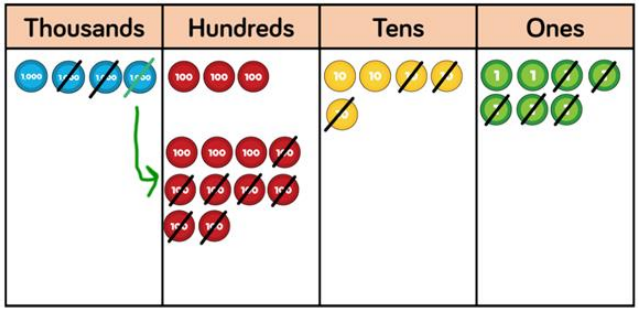




$$\begin{array}{r} {}^{3}\cancel{4}^{1}357 \\ -\ 2735 \\ \hline 1622 \end{array}$$

$$4{,}357 - 2{,}735 = 1{,}622$$





Year: 4

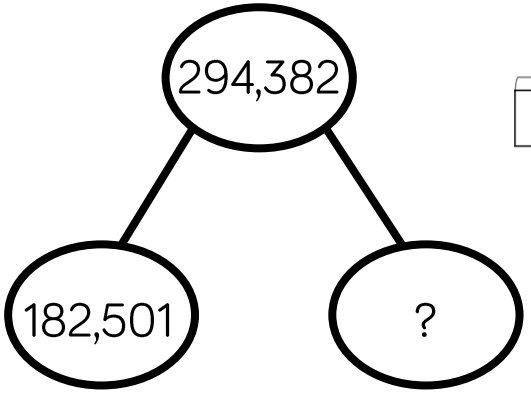
Base 10 and place value counters are the most effective manipulatives when subtracting numbers with up to 4 digits.

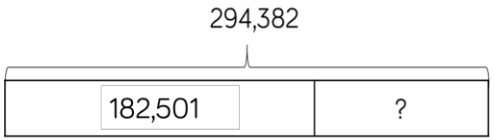
Ensure children write out their calculation alongside any concrete resources so they can see the links to the written column method.

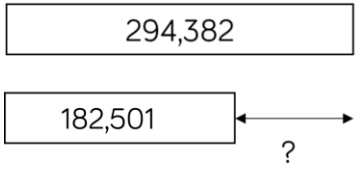
Plain counters on a place value grid can also be used to support learning.

Skill: Subtract numbers with more than 4 digits

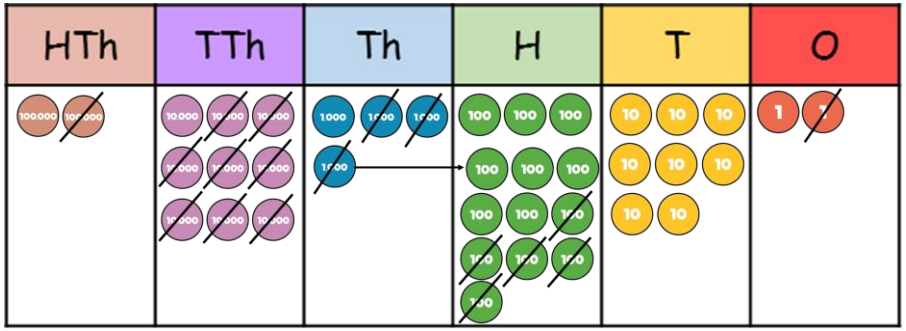
Year: 5/6







294,382 – 182,501 = 111,881

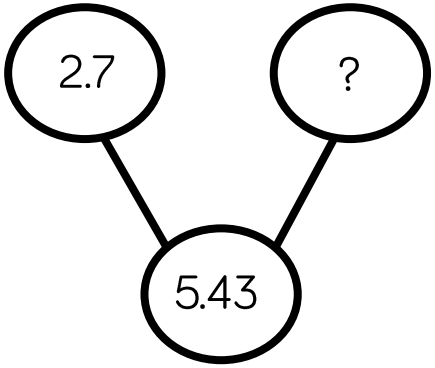


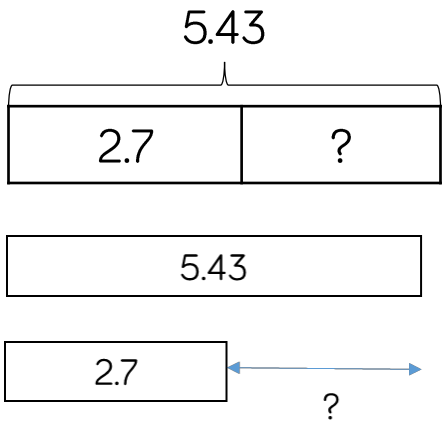
	2	9	$^{3}\cancel{4}$	$^{1}3$	8	2
–	1	8	2	5	0	1
	1	1	1	8	8	1

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.

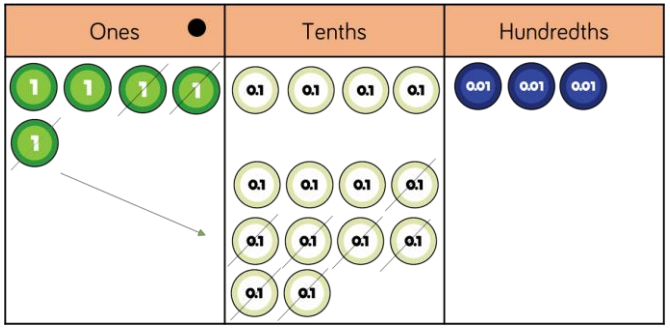
Skill: Subtract with up to 3 decimal places

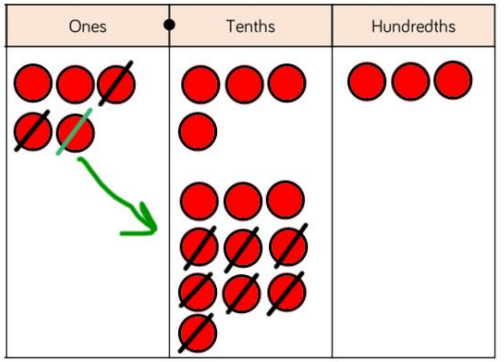




$$\begin{array}{r} {}^{4}\cancel{5}.{}^{1}43 \\ -\ 2.7 \\ \hline 2.73 \end{array}$$

5.43 − 2.7 = 2.73





Year: 5

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

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

Glossary

Addend - A number to be added to another.

Aggregation - combining two or more quantities or measures to find a total.

Augmentation - increasing a quantity or measure by another quantity.

Commutative – numbers can be added in any order.

Complement – in addition, a number and its complement make a total e.g. 300 is the complement to 700 to make 1,000

Difference – the numerical difference between two numbers is found by comparing the quantity in each group.

Exchange – Change a number or expression for another of an equal value.

Minuend – A quantity or number from which another is subtracted.

Partitioning – Splitting a number into its component parts.

Reduction – Subtraction as take away.

Subitise – Instantly recognise the number of objects in a small group without needing to count.

Subtrahend - A number to be subtracted from another.

Sum - The result of an addition.

Total – The aggregate or the sum found by addition.

Appendix 2 Teaching Maths at St. Mary's School

Activity	When	Other info
Maths Lesson	Daily	Lesson focus based on White Rose small steps. Use small step as LC. I do, we do, you do. If using WR workbooks some children will need more practice of key learning rather than moving to hard problem solving questions. See Ofsted good practice sheet for further info.
White Rose Flashback	2-3 x weekly Mon- Thursday Early bird **outside main maths lesson**	Flashback **or** facts practice 4 x weekly. KS2 record at top or WR workbook page or orange books. KS1 as a class/ whiteboards/ in books as appropriate (Don't create extra work). When a Flashback is missed and calculation is a focus, the next FB should be the one that begins with learning from the previous day (not all FBs will be completed).
Calculation Practice	2-3 x weekly Mon- Thursday Early bird **outside main maths lesson**	Flashback **or** facts practice 4 x weekly Identify types of calculation practice needed from arithmetic tests/maths lessons
Written calculations	Teach in line with WR scheme and revisit regularly (see above)	When a method is first taught, give children lots of opportunities to practise setting out written calculations in orange maths books. Regularly revisit and rehearse.
Arithmetic test Y2- Y6 Test Base	Friday 1x fortnight (alternate with CLIC) In addition to maths lesson	Children to complete appropriate corrections. Teachers identify areas to revisit in regular calculation practice. Test Base (Y2- Y6) or Twinkl or https://mathsbot.com/primary/ks2 **Ensure that children show working out on trickier questions.**
CLIC or CLIC type task- revision of a mixture previous learning.	Friday 1x fortnight (alternate with arithmetic) In addition to maths lesson	
Counting	Regular counting opportunities in or out of lessons.	These have been built into WR but will need rehearsing. Refer to separate sheet showing National Curriculum statutory requirements for each year group.
Rapid recall of facts appropriate to year group e.g. doubles, number bonds, tables	Minimum 3 x weekly (home or school)	Do in class or set as homework. Big Maths Beat That TT Rock Stars (Y2-6) Can set number of minutes per day. Number Bots (R- Y3) Big Maths Jingles in Google Drive
WR end of block assessments	End of WR unit of work	Record scores. Complete appropriate corrections in next lesson/ catch up group. Do outside lesson or as part of a lesson if possible e.g. in place of CLIC

Presentation

1 digit in a box
Correct number formation
Question number, miss a square, write question (in presentation policy)
Taking pride in work
Showing working out unless a calculation can be done mentally

Filing work

File arithmetic tests, Beat That in maths folder
Stick end of block WR and CLIC in orange books.

Appendix 3

ASSESSMENT TIMETABLE

For those children who cannot access current year group assessments please see the right hand column on electronic trackers that will state which **Summer test** and **Year group** that this pupil needs to be assessed with. This column will be updated by SLT following pupil progress meetings.

National curriculum scores 0-8 for ALL pupils are needed to be recorded in electronic trackers and vulnerable trackers. If not current year scale please put (y?) in next column.
P scales need to be recorded in SEND files.

Thankyou.

	Autumn 1 Sept	Autumn 2 Oct	Spring 1 Feb	Spring 2	Summer 1 May	Summer 2 July
Reception						
Profile	Baseline And Enter Baseline on school tracker and Target tracker	Update Profile all prime areas and Literacy and Maths	Update Profile all prime areas and Literacy and Maths	Update Profile For all other aspects of learning	Letter Update Profile all prime areas and Literacy and Maths	Finalise profile (June) Enter on target tracker and school tracker
Maths		Update Maths Criteria Sheets		Update Maths Criteria Sheets	Update Maths Criteria Sheets	
Writing	WRITING IS ONGOING FOLLOWING THE TWO WEEKLY WRITING CYCLE. BELOW ARE WHERE FORMAL TEACHER ASSESSMENTS USING THE TWO WEEKLY CYCLE EVIDENCE NEEDS TO BE ENTERED ON THE TRACKERS AND **MUST REPRESENT FICTION AND NON FICTION INDEPENDENT WRITING**					
Writing		Writing assessment enter on school tracker and target tracker	Writing assessment enter on school tracker and target tracker		Writing assessment enter on school tracker and target tracker	Complete Cohort tracker for writing

Reading		Reading Teacher Assessment using Guided reading, phonics phase, book bands, HFW		Reading Teacher Assessment using Guided reading, phonics phase, book band s, HFW	Reading Teacher Assessment using Guided reading, phonics phase, book bands, HFW	Complete Cohort tracker for reading
Phonics	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment
Yr 1,						
Writing	WRITING IS ONGOING FOLLOWING THE TWO WEEKLY WRITING CYCLE. BELOW ARE WHERE FORMAL TEACHER ASSESSMENTS USING THE TWO WEEKLY CYCLE EVIDENCE NEEDS TO BE ENTERED ON THE TRACKERS AND MUST REPRESENT FICTION AND NON FICTION INDEPENDENT WRITING					
Writing		Writing assessment Update Individual pupil trackers and cohort tracker	Writing assessment Update Individual pupil trackers and cohort tracker		Writing assessment Update Individual pupil trackers and cohort tracker	Complete Cohort tracker for writing
Maths		Teacher Assessment – Use Maths Criteria Sheets	White Rose Maths **Spring Year 1** Reasoning and Arithmetic		**Testbase End of Year 1** Reasoning and Arithmetic	Complete Cohort tracker for maths
	End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)
Reading		Reading Teacher Assessment using Guided reading, phonics phase, book bands, HFW	ReadingTeacher Assessment using Guided reading, phonics phase, book bands, HFW Scholastic reading comprehension		Reading Old level 2 SAT Paper **2019** Apart from SEND then Teacher assess using Guided reading, phonics phase, book bands, HFW	Complete Cohort tracker for reading
Phonics	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment	Little Wandle 6 week assessment

			AND Phonics Assessment – previous two Years test		AND Phonics Assessment – previous years test	AND Statutory Phonics Screening for all pupils
SPaG		Teacher Assessment Using Spelling Tests HFW, Writing Criteria Sheets	SPaG Twinkl Test 4		**Testbase End of Year 1** Spelling and SPaG	Complete Cohort tracker for SPaG
Science		Science – Rising Stars and update cohort tracker		Science – Rising Stars and update cohort tracker		Science – Rising Stars and update cohort tracker
Yr 2						
Writing	WRITING IS ONGOING FOLLOWING THE TWO WEEKLY WRITING CYCLE. BELOW ARE WHERE FORMAL TEACHER ASSESSMENTS USING THE TWO WEEKLY CYCLE EVIDENCE NEEDS TO BE ENTERED ON THE TRACKERS AND MUST REPRESENT FICTION AND NON FICTION INDEPENDENT WRITING					
Writing		Writing assessment Update Individual pupil trackers and cohort tracker	Writing assessment Update Individual pupil trackers and cohort tracker		Writing assessment Update Individual pupil trackers and cohort tracker	Complete Cohort tracker for writing
Maths		White Rose Maths **Autumn Year 2** Reasoning and Arithmetic	Two Years previous SAT Paper with Arithmetic	Previous Years Maths SAT Paper with Arithmetic	SAT	Complete Cohort tracker for maths
Maths			Times tables test 2,5,10 X		Times tables test 2,5,10 X	
Maths	End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 1 - 3 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 4,5, 6, 7, 8, End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 9,10 End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)

Reading		Pre 2016 Reading SAT Paper	Two Years previous Reading SAT Paper	Previous Years Reading SAT Paper	SAT	Complete Cohort tracker for reading
Phonics			Phonics Assessment – previous Years test			Phonics Screening for those who have not passed
SPaG		Sample SPaG SAT Paper	Two Years previous SPaG SAT	Previous Years SPaG SAT Paper	SAT	Complete Cohort tracker for SPaG
Science					Science – Rising Stars and update cohort tracker	Science – Rising Stars and Final TA update tracker
Yr 3						
Writing	WRITING IS ONGOING FOLLOWING THE TWO WEEKLY WRITING CYCLE. BELOW ARE WHERE FORMAL TEACHER ASSESSMENTS USING THE TWO WEEKLY CYCLE EVIDENCE NEEDS TO BE ENTERED ON THE TRACKERS AND MUST REPRESENT FICTION AND NON FICTION INDEPENDENT WRITING					
Writing		Writing assessment Update Individual pupil trackers and cohort tracker	Writing assessment Update Individual pupil trackers and cohort tracker		Writing assessment Update Individual pupil trackers and cohort tracker	Complete Cohort tracker for writing
Maths		White Rose Maths **Autumn Year 3** Reasoning and Arithmetic	**Testbase Mid Year Spring Year 3** Reasoning and Arithmetic		**Testbase End of Year** Reasoning and Arithmetic	Complete Cohort tracker for maths
Maths		Times Tables Test	Times Tables Test		Times Tables Test	
Maths	Testbase Arithmetic Test 1 and 2 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 3 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 4 and 5 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test , 6, 7, 8, End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 9,10 End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)
Reading		Twinkl Reading Assessment	Reading Mid Year Testbase Y3		Reading	Complete Cohort tracker for reading

					End of Year Testbase Y3	
SPaG		SPaG and Spelling Year 2 SAT from that year	SPaG and Spelling Mid Year Testbase Y3		SPaG and Spelling End of Year Testbase Y3	Complete Cohort tracker for SPaG
Science		Science – Rising Stars and update cohort tracker		Science – Rising Stars and update cohort tracker		Science – Rising Stars and update cohort tracker
Yr 4						
Writing	WRITING IS ONGOING FOLLOWING THE TWO WEEKLY WRITING CYCLE. BELOW ARE WHERE FORMAL TEACHER ASSESSMENTS USING THE TWO WEEKLY CYCLE EVIDENCE NEEDS TO BE ENTERED ON THE TRACKERS AND MUST REPRESENT FICTION AND NON FICTION INDEPENDENT WRITING					
Writing		Writing assessment Update Individual pupil trackers and cohort tracker	Writing assessment Update Individual pupil trackers and cohort tracker		Writing assessment Update Individual pupil trackers and cohort tracker	Complete Cohort tracker for writing
Maths		White Rose Maths **Autumn Year 4** Reasoning and Arithmetic	**Testbase Mid Year 4** Reasoning and Arithmetic		**Testbase End of Year** Reasoning and Arithmetic	Complete Cohort tracker for maths
Maths		Times Tables Test	Times Tables Test		Times Tables Test	
Maths	Testbase Arithmetic Test 1 and 2 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 3 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 4 and 5 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test , 6, 7, 8, End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 9,10 End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)
Reading		Twinkl Reading Assessment	Reading Mid Year Testbase Y4		Reading End of Year Testbase Y4	Complete Cohort tracker for reading

SPaG		SPaG and Spelling Testbase End of Year 3 Summer	SPaG and Spelling Mid Year Testbase Y4		SPaG and Spelling End of Year Testbase Y4	Complete Cohort tracker for SPaG
Science		Science – Rising Stars and update cohort tracker				Science – Rising Stars and update cohort tracker
Yr 5						
Writing	WRITING IS ONGOING FOLLOWING THE TWO WEEKLY WRITING CYCLE. BELOW ARE WHERE FORMAL TEACHER ASSESSMENTS USING THE TWO WEEKLY CYCLE EVIDENCE NEEDS TO BE ENTERED ON THE TRACKERS AND MUST REPRESENT FICTION AND NON FICTION INDEPENDENT WRITING					
Writing		Writing assessment Update Individual pupil trackers and cohort tracker	Writing assessment Update Individual pupil trackers and cohort tracker		Writing assessment Update Individual pupil trackers and cohort tracker	Complete Cohort tracker for writing
Maths		White Rose Maths **Autumn Year 5** Reasoning and Arithmetic	**Testbase Mid Year 5** Reasoning and Arithmetic		**Testbase End of Year** Reasoning and Arithmetic	Complete Cohort tracker for maths
Maths		Times Tables Test for anyone not passed	Times Tables Test for anyone not passed		Times Tables Test for anyone not passed	
Maths	Testbase Arithmetic Test 1 and 2 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 3 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 4 and 5 End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test , 6, 7, 8, End of Unit White Rose Maths Test (use in a lesson)	Testbase Arithmetic Test 9,10 End of Unit White Rose Maths Test (use in a lesson)	End of Unit White Rose Maths Test (use in a lesson)
Reading		Old Style Y6 Reading SAT **2012**	Reading Mid Year Testbase Y5		Reading End of Year Testbase Y5	Complete Cohort tracker for reading

SPaG		SPaG and Spelling Testbase End of Year 4 Summer	SPaG and Spelling Mid Year Testbase Y5		SPaG and Spelling End of Year Testbase Y5	Complete Cohort tracker for SPaG
Science		Science – Rising Stars and update cohort tracker		Science – Rising Stars and update cohort tracker		Science – Rising Stars and update cohort tracker
Yr 6						
Writing	WRITING IS ONGOING FOLLOWING THE TWO WEEKLY WRITING CYCLE . BELOW ARE WHERE FORMAL TEACHER ASSESSMENTS USING THE TWO WEEKLY CYCLE EVIDENCE NEEDS TO BE ENTERED ON THE TRACKERS AND MUST REPRESENT FICTION AND NON FICTION INDEPENDENT WRITING					
Writing		Writing assessment Update Individual pupil trackers and cohort tracker	Writing assessment Update Individual pupil trackers and cohort tracker		Writing assessment Update Individual pupil trackers and cohort tracker	Complete Cohort tracker for writing
Maths		2016 Maths SAT Paper with Arithmetic	Two Years previous SAT Paper with Arithmetic	Previous Years Maths SAT Paper with Arithmetic	SAT	Complete Cohort tracker for maths
Maths		Times Tables Test for anyone not passed	Times Tables Test for anyone not passed		Times Tables Test for anyone not passed	
Maths	Testbase Arithmetic Test 1 and 2	Testbase Arithmetic Test 3 Boosters and additional SAT papers	Testbase Arithmetic Test 4 and 5 Boosters and additional SAT papers	Testbase Arithmetic Test , 6, 7, 8, Boosters and additional SAT papers	Testbase Arithmetic Test 9,10 Boosters and additional SAT papers	
Reading		Pre 2016 Reading SAT Paper	Two Years previous Reading SAT Paper	Previous Years Reading SAT Paper	SAT	Complete Cohort tracker for reading
SPaG		2016 SPaG SAT Paper	Two Years previous SPaG SAT	Previous Years SPaG SAT Paper	SAT	Complete Cohort tracker for SPaG
Science		Science – Rising Stars and update cohort tracker		Science – Rising Stars and update cohort tracker		Final Science TA