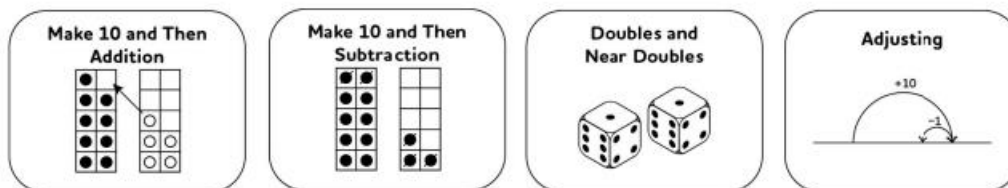


Activities for Home

Dear Families

We have now learnt all the strategies that enable the children to add and subtract across 10 without counting on their fingers. Over the last few weeks we have sent home a page on each of them. Here are all the strategies that we have learnt:



When your child is adding or subtracting numbers across 10, encourage them to think about how they can solve them without counting on their fingers. Don't worry if you can't remember all of the strategies yourself. This is not about you being the expert. Just take the time to talk about numbers with your child, and ask them how they could think about working things out. Encourage your child to use what they know to work out what they don't know. You could ask your child questions such as the following:

- How might we think about that?
- Could we start by thinking about how many we need to add/subtract to make 10?
- Do we know any doubles or other facts which we could start with and then adjust?
- (For addition only) Does it help if we swap the two numbers being added, and think about $9 + 3$ rather than $3 + 9$?
- Can you imagine that on the tens frame? Try to see it in your head.

Being able to add and subtract across 10 is incredibly helpful when moving onto the next stage of maths because children need to be able to do lots of these calculations in column addition and column subtraction. They are also useful for mental calculation, e.g. knowing that $60 + 70$ is 130. Keep playing the types of games and doing the types of activities that you have been doing over the last few weeks. The most important thing is for you and your child to talk about and enjoy playing with numbers together.

Stage 6 Book 1 Teaching Progression

Calculating with Multiples of 10

This book teaches children to count in multiples of 10, to write multiples of 10 in numerals (20, 30, 40, 50, 60, 70, 80, 90 and 100), and to "read and write" these numbers as multiples of 10 e.g., six tens. With this understanding secure, children are then taught to apply the addition and subtraction facts within 10 that they know, to add and subtract groups of 10. For example, we know $2 + 6 = 8$ so 2 tens + 6 tens = 8 tens. $20 + 60 = 80$.

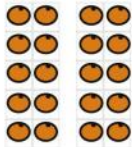
By the end of Stage 5, children are fluent in all of the grids facts. All additive calculation they will ever do from now on just depends on applying these known facts to larger numbers (two-digit upwards) or smaller numbers (decimal fractions). Stage 6 focuses on applying these facts to two-digit numbers as an illustration of this.

Books 1 – 3 focus to applying Stage 3 facts: adding tens or adding ones. Even in Year 2 (the year group this content is written for) if children are fluent in their within 10 facts they will be able to solve the calculations in these books mentally, (rather than for example jumping up or down a number line in groups of 10 to calculate $20 + 40$ or $90 - 70$).


The central skill that children need to be able to apply known facts to other place value units is the ability to 'unitise'. That is, to 'think' in units other than one. In this book the children need to think in units of ten. Children are used to applying number facts to different units. Even for example knowing that 2 cats and 2 cats is 4 cats is applying a fact to a unit – in that case the unit is a cat. Here they are simply applying a known fact to a unit of ten: 2 tens and 2 tens is 4 tens. For this reason this book starts with an animation focused on developing unitising (being totally fluent in recognising that 60 is 6 tens), before applying known facts to these groups of ten.

Complete the sentences.


Example




There are 2 groups of 10 oranges.
There are 20 oranges.



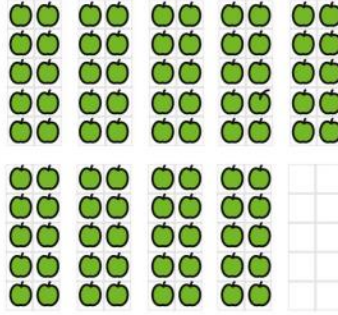
There are groups of 10 T-shirts.
There are T-shirts.



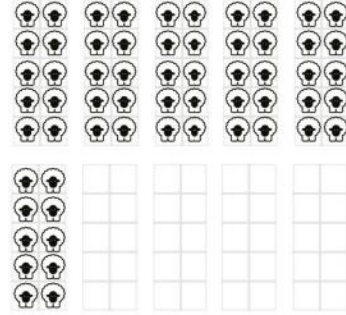
There are groups of 10 stars.
There are stars.



There are groups of 10 ducks.
There are ducks.



There are groups of 10 apples.
There are apples.



There are groups of 10 sheep.
There are sheep.

Use the first addition equation to solve the other two.

$$4 + 2 = \underline{\quad}$$

$$4 \text{ tens} + 2 \text{ tens} = \underline{\quad} \text{ tens}$$

$$40 + 20 = \underline{\quad}$$

$$1 + 7 = \underline{\quad}$$

$$1 \text{ ten} + 7 \text{ tens} = \underline{\quad} \text{ tens}$$

$$10 + 70 = \underline{\quad}$$

$$3 + 3 = \underline{\quad}$$

$$3 \text{ tens} + 3 \text{ tens} = \underline{\quad} \text{ tens}$$

$$30 + 30 = \underline{\quad}$$

$$2 + 3 = \underline{\quad}$$

$$2 \text{ tens} + 3 \text{ tens} = \underline{\quad} \text{ tens}$$

$$20 + 30 = \underline{\quad}$$

$$2 + 6 = \underline{\quad}$$

$$2 \text{ tens} + 6 \text{ tens} = \underline{\quad} \text{ tens}$$

$$20 + 60 = \underline{\quad}$$

$$4 + 5 = \underline{\quad}$$

$$4 \text{ tens} + 5 \text{ tens} = \underline{\quad} \text{ tens}$$

$$40 + 50 = \underline{\quad}$$

$$4 + 3 = \underline{\quad}$$

$$4 \text{ tens} + 3 \text{ tens} = \underline{\quad} \text{ tens}$$

$$40 + 30 = \underline{\quad}$$

$$2 + 8 = \underline{\quad}$$

$$2 \text{ tens} + 8 \text{ tens} = \underline{\quad} \text{ tens}$$

$$20 + 80 = \underline{\quad}$$

$$5 + 2 = \underline{\quad}$$

$$5 \text{ tens} + 2 \text{ tens} = \underline{\quad} \text{ tens}$$

$$50 + 20 = \underline{\quad}$$

$$7 + 3 = \underline{\quad}$$

$$7 \text{ tens} + 3 \text{ tens} = \underline{\quad} \text{ tens}$$

$$70 + 30 = \underline{\quad}$$

$$6 + 3 = \underline{\quad}$$

$$6 \text{ tens} + 3 \text{ tens} = \underline{\quad} \text{ tens}$$

$$60 + 30 = \underline{\quad}$$

$$3 + 5 = \underline{\quad}$$

$$3 \text{ tens} + 5 \text{ tens} = \underline{\quad} \text{ tens}$$

$$30 + 50 = \underline{\quad}$$

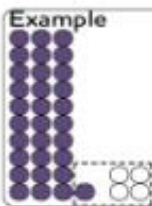
Stage 6 Book 2 Teaching Progression

Two-Digit Numbers:
Calculating with Ones

By now, children should be confident partitioning two-digit numbers into a tens part and a ones part. This book builds on this understanding to teach children to apply their addition and subtraction facts within 10 when adding or subtracting ones to a two-digit number. For example, using the knowledge that $5+3=8$ to help solve $25+3$.

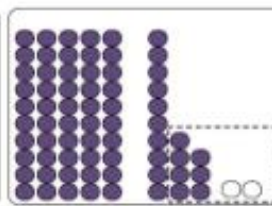
Complete the addition fact. Use it to solve the next equation.

Example



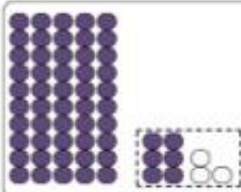
$$1 + 4 = 5$$

$$31 + 4 = 35$$



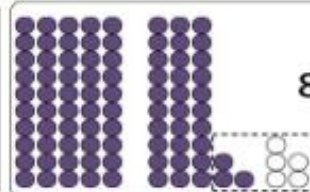
$$7 + 2 = \underline{\quad}$$

$$67 + 2 = \underline{\quad}$$



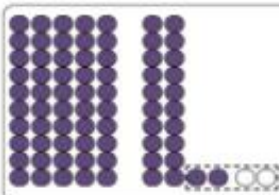
$$6 + 3 = \underline{\quad}$$

$$56 + 3 = \underline{\quad}$$



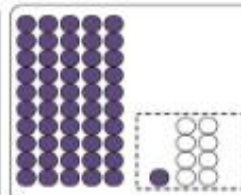
$$3 + 5 = \underline{\quad}$$

$$83 + 5 = \underline{\quad}$$



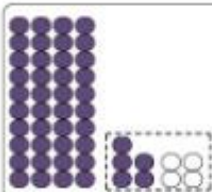
$$2 + 2 = \underline{\quad}$$

$$72 + 2 = \underline{\quad}$$



$$1 + 8 = \underline{\quad}$$

$$51 + 8 = \underline{\quad}$$



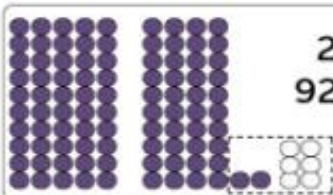
$$5 + 4 = \underline{\quad}$$

$$45 + 4 = \underline{\quad}$$



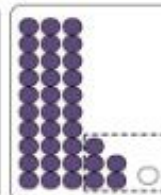
$$4 + 4 = \underline{\quad}$$

$$24 + 4 = \underline{\quad}$$



$$2 + 6 = \underline{\quad}$$

$$92 + 6 = \underline{\quad}$$



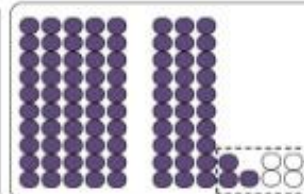
$$5 + 1 = \underline{\quad}$$

$$35 + 1 = \underline{\quad}$$



$$3 + 3 = \underline{\quad}$$

$$23 + 3 = \underline{\quad}$$



$$3 + 4 = \underline{\quad}$$

$$83 + 4 = \underline{\quad}$$

Complete the addition fact. Use it to solve the second equation.

<p>Example</p> $4 + 3 = \underline{7}$ $44 + 3 = \underline{47}$	$4 + 4 = \underline{\quad}$ $24 + 4 = \underline{\quad}$	$3 + 3 = \underline{\quad}$ $3 + 63 = \underline{\quad}$
$2 + 2 = \underline{\quad}$ $82 + 2 = \underline{\quad}$	$2 + 5 = \underline{\quad}$ $32 + 5 = \underline{\quad}$	$5 + 4 = \underline{\quad}$ $5 + 14 = \underline{\quad}$
$6 + 3 = \underline{\quad}$ $76 + 3 = \underline{\quad}$	$3 + 2 = \underline{\quad}$ $73 + 2 = \underline{\quad}$	$4 + 1 = \underline{\quad}$ $4 + 91 = \underline{\quad}$
$2 + 4 = \underline{\quad}$ $92 + 4 = \underline{\quad}$	$5 + 3 = \underline{\quad}$ $25 + 3 = \underline{\quad}$	$3 + 6 = \underline{\quad}$ $3 + 56 = \underline{\quad}$
$3 + 5 = \underline{\quad}$ $63 + 5 = \underline{\quad}$	$4 + 5 = \underline{\quad}$ $34 + 5 = \underline{\quad}$	$7 + 2 = \underline{\quad}$ $7 + 82 = \underline{\quad}$
$1 + 7 = \underline{\quad}$ $71 + 7 = \underline{\quad}$	$6 + 2 = \underline{\quad}$ $16 + 2 = \underline{\quad}$	$3 + 4 = \underline{\quad}$ $3 + 54 = \underline{\quad}$


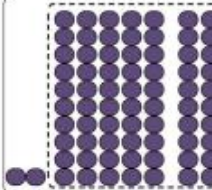
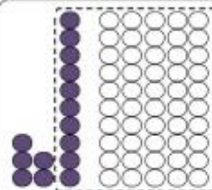
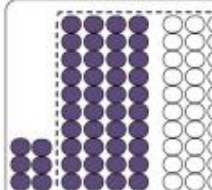
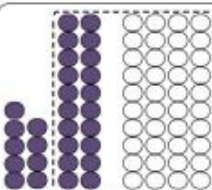
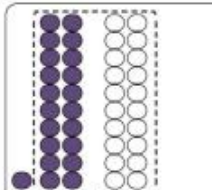
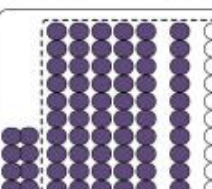
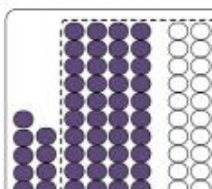

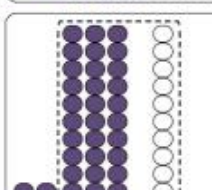
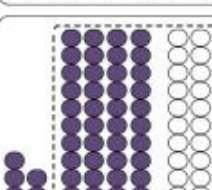
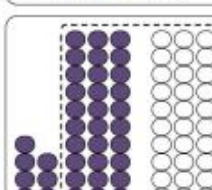
Stage 6 Book 3 Teaching Progression

Two-Digit
Numbers:
Calculating with
Tens

This book teaches children to apply their addition and subtraction facts within 10 when adding or subtracting multiples of 10 to a two-digit number. For example, using knowledge that $3+2=5$, and $9+0=9$ to solve $39+20$.

Complete the first equation. Use it to solve the second equation.

Example

 $30 + 30 = 60$ $37 + 30 = 67$	 $70 + 20 = \underline{\quad}$ $72 + 20 = \underline{\quad}$
 $10 + 70 = \underline{\quad}$ $15 + 70 = \underline{\quad}$	 $40 + 30 = \underline{\quad}$ $46 + 30 = \underline{\quad}$
 $20 + 40 = \underline{\quad}$ $29 + 40 = \underline{\quad}$	 $20 + 20 = \underline{\quad}$ $21 + 20 = \underline{\quad}$
 $60 + 30 = \underline{\quad}$ $68 + 30 = \underline{\quad}$	 $40 + 50 = \underline{\quad}$ $49 + 50 = \underline{\quad}$
 $30 + 50 = \underline{\quad}$ $34 + 50 = \underline{\quad}$	 $30 + 10 = \underline{\quad}$ $32 + 10 = \underline{\quad}$
 $40 + 40 = \underline{\quad}$ $45 + 40 = \underline{\quad}$	 $30 + 30 = \underline{\quad}$ $37 + 30 = \underline{\quad}$

Complete the first subtraction and use it to solve the second.

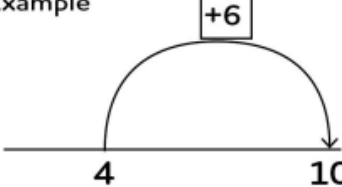
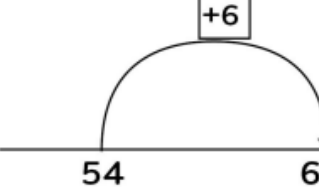
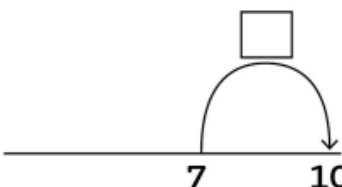
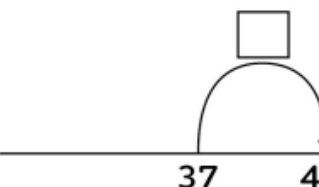
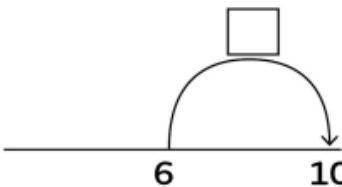
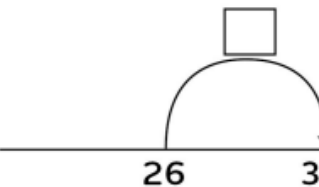
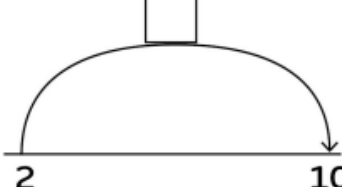
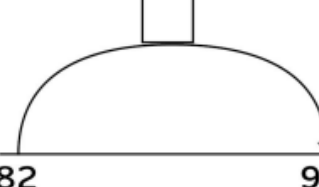
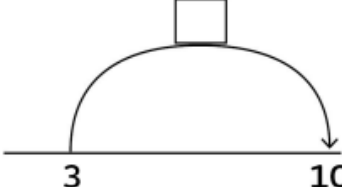
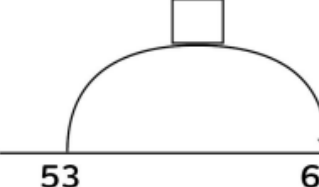
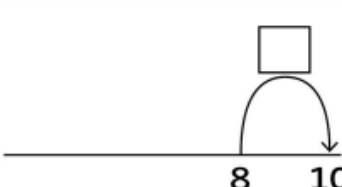

<p>Example</p> $70 - 50 = 20$ $74 - 50 = 24$	$90 - 50 = \underline{\quad}$ $97 - 50 = \underline{\quad}$	$60 - 40 = \underline{\quad}$ $66 - 40 = \underline{\quad}$
$80 - 30 = \underline{\quad}$ $86 - 30 = \underline{\quad}$	$60 - 20 = \underline{\quad}$ $65 - 20 = \underline{\quad}$	$90 - 60 = \underline{\quad}$ $98 - 60 = \underline{\quad}$
$40 - 20 = \underline{\quad}$ $42 - 20 = \underline{\quad}$	$70 - 40 = \underline{\quad}$ $71 - 40 = \underline{\quad}$	$80 - 40 = \underline{\quad}$ $87 - 40 = \underline{\quad}$
$80 - 60 = \underline{\quad}$ $89 - 60 = \underline{\quad}$	$90 - 30 = \underline{\quad}$ $92 - 30 = \underline{\quad}$	$90 - 40 = \underline{\quad}$ $91 - 40 = \underline{\quad}$
$50 - 40 = \underline{\quad}$ $53 - 40 = \underline{\quad}$	$80 - 70 = \underline{\quad}$ $84 - 70 = \underline{\quad}$	$50 - 20 = \underline{\quad}$ $56 - 20 = \underline{\quad}$
$60 - 30 = \underline{\quad}$ $68 - 30 = \underline{\quad}$	$60 - 40 = \underline{\quad}$ $65 - 40 = \underline{\quad}$	$90 - 70 = \underline{\quad}$ $99 - 70 = \underline{\quad}$

Stage 6 Book 4 Teaching Progression

Make the Next Ten and Then: Addition

This book builds on the "Make 10 and Then" strategy for addition taught in Stage 5 Book 1. Children are taught to extend the strategy when they add across a multiple of 10. First they must make the "next 10" and then they add the rest. For example, $56+6$ can be thought of as $56+4+2$. The children are taught to use this approach to partition the single digit addend even when it occurs first. For example, $3+49$ should be thought of as $49+1+2$.

Fill in the missing numbers on the number line and complete the equations.

<p>Example</p> 		$4 + 6 = 10$ $54 + 6 = 60$
		$7 + \underline{\quad} = 10$ $37 + \underline{\quad} = 40$
		$6 + \underline{\quad} = 10$ $26 + \underline{\quad} = 30$
		$2 + \underline{\quad} = 10$ $82 + \underline{\quad} = 90$
		$3 + \underline{\quad} = 10$ $53 + \underline{\quad} = 60$
		$8 + \underline{\quad} = 10$ $48 + \underline{\quad} = 50$

Solve the equations in two steps. Fill in the missing numbers. .

Example

$$9 + 83 = 83 + \boxed{7} + \boxed{2}$$
$$= \boxed{92}$$

$$5 + 36 = 36 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$6 + 17 = 17 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$7 + 74 = 74 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$67 + 5 = 67 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$53 + 8 = 53 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$7 + 25 = 25 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$8 + 85 = 85 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$49 + 6 = 49 + \boxed{} + \boxed{}$$
$$= \boxed{}$$

$$28 + 6 = 28 + \boxed{} + \boxed{}$$
$$= \boxed{}$$