A Parent's Guide to Maths at Ipplepen Primary School

Year 4

The way Maths is taught in primary schools may seem to have changed considerably since you yourself were in the classroom. With the introduction of a new National Curriculum in 2014, some more complicated concepts have been introduced and a much deeper understanding of what is taught is now necessary.

From starting in Foundation, all the way through to Year Six, your child will follow a progressive scheme of learning that will build on their previous knowledge and adapt known methods and images to ensure their working becomes more efficient as they work with larger numbers.

This guide is designed to support you to understand the methods that are being taught in the classroom on a year group basis and the understanding that your child will be gaining. We provide the children with images to match the concrete tools they may be using to complete maths problems with the aim to be able to remove the concrete depictions and replace them with pictorial representations by the end of KS2.

It is however very important to recognise that although a new method may be introduced to your child as they progress through the school, if they find it more difficult to grasp, they will always be supported to continue using *their* most efficient method whilst being provided with plenty of opportunities to practise the new (more effective) technique. It is very important that your child understands the workings of each method, not simply a mechanical means to answer a question.

Terminology

It is important to note the vocabulary we use in school and that you try to embed this in any maths talk at home.

Your child will now be working with some larger numbers (up to 4-digits) as well as being exposed to some decimal values.

Ten Thousands	Thousands	Hundreds	Tens	Ones	Decimal Point	Tenths	Hundredths
TTh	Th	H	T	O	.	t	h

Addition (+)	Subtraction (-)	Multiplication (x)	Division (÷)	Equals (=)
add more plus increase total sum altogether	subtract minus less decrease take away fewer leave difference	multiply times lots of groups of product array multiplied by repeated addition	divide by share divisible by group divide share equally	equivalent same as total makes balances

Multiplying and Dividing by Multiples of 10

2.7 x 10

Tens	ones	•	Tenths
2	7		
2	7		

One place to the **left**.

2.7 x 100

Hundreds	Tens	ones	•	Tenths
2	7	0		7

Two places to the **left.**

78 ÷ 10

Tens	ones	•	Tenths
7	8		8
	7		

One place to the **right**.

781 ÷ 100

Hundreds	Tens	ones	•	Tenths	Hundredths
7	8	1		1	
		7		8	

Two places to the **right.**

When multiplying and dividing by multiples of 10, the children are taught to move their number up or down the place value chart the correct number of places. They then may need to add 'place holder 0s'.

Multiplication Tables

This academic year, your child will complete the Multiplication Tables Check in June. They will have practised all of their tables up to 12x12 and will complete a computer-based assessment of their recall.

Previous Learning

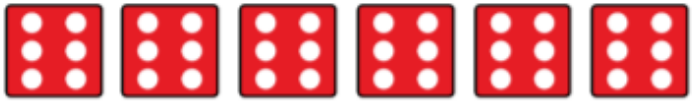
Your child will have spent the past two years learning and practising the 2, 5, 10, 3, 4 and 8 times tables and should now be fairly fluent in the recall of these facts up to x 12. They will also know the associated 'fact family'.

e.g.

8 x 3 = 24	3 x 8 = 24
24 ÷ 8 = 3	24 ÷ 3 = 8

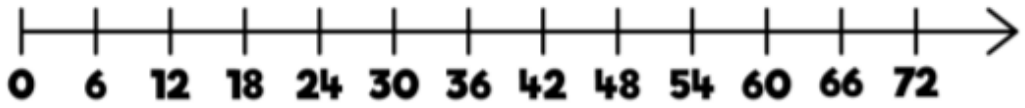
Several representations of each multiplication table will be used throughout your child's learning and they will be encouraged to find their most useful representation and continue to practise with this. Through playing TTRockstars, your child will continually practise and become more fluent in all of the tables that they have learned.

Skill: 6 times table



6	12	18	24	30
36	42	48	54	60
66	72	78	84	90

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



New Learning

In Year 4, your child will learn and practise the 6 times table.

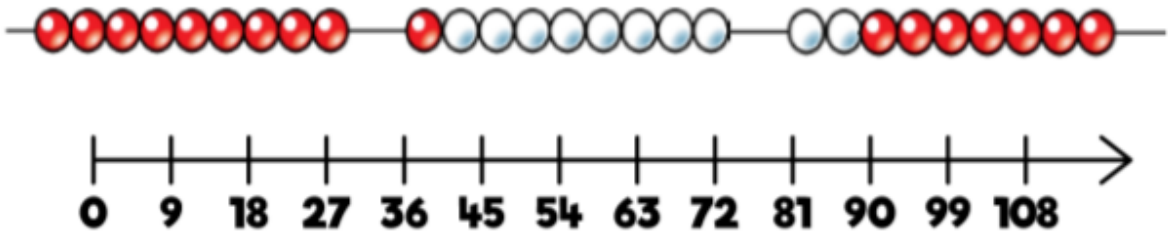
Links will be made to the three times tables, seeing how each multiple is double the threes.

They will know that all multiples are even.

Skill: 9 times table

9	18	27	36	45
54	63	72	81	90

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



New Learning

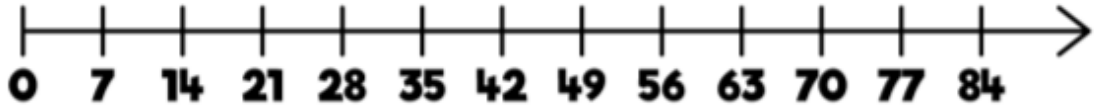
In Year 4, your child will learn and practise the 9 times table.

Your child will look at the patterns they can see on the hundred square and note the odd, even pattern.

Skill: 7 times table

7	14	21	28	35
42	49	56	63	70

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



New Learning

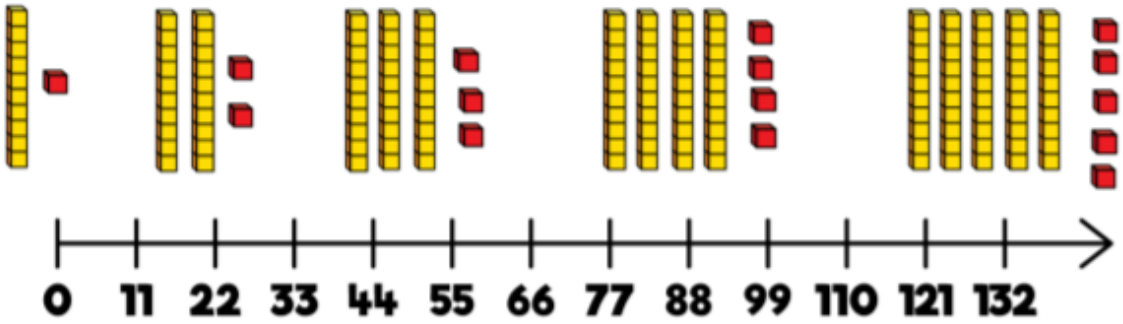
In Year 4, your child will learn and practise the 7 times table.

This is a tricky times table to learn due to the lack of obvious pattern in the numbers. However, they will know most of the facts due to commutativity. They will be able to see the odd, even pattern using number shapes.

Skill: 11 times table

11	22	33	44	55	66
77	88	99	110	121	132

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



New Learning

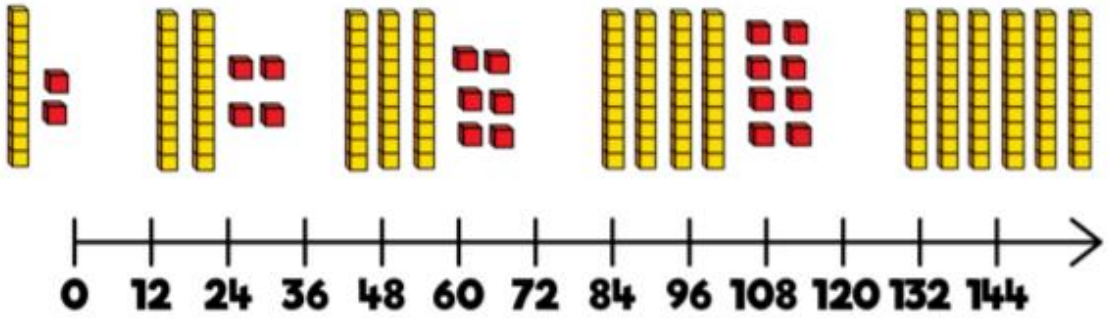
In Year 4, your child will learn and practise the 11 times table.

Your child will explore the pattern on the hundred square and the how the tens and ones relate to each other below 100.

Skill: 12 times table

12	24	36	48	60
72	84	96	108	120
132	144			

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



New Learning

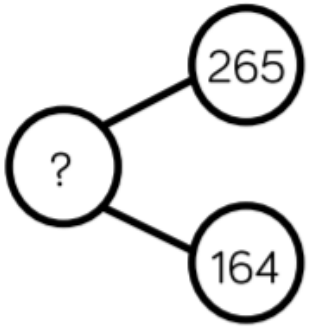
In Year 4, your child will learn and practise the 12 times table.

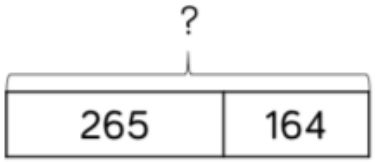
Links will be made with the 6 times table seeing how each multiple is double the sixes.

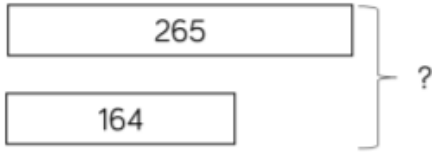
They will look at the pattern in the ones column within each group of five multiples.

Addition

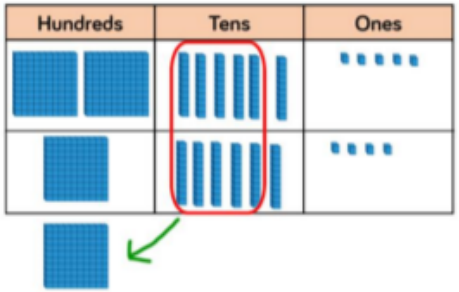
Skill: Add numbers with up to 3 digits



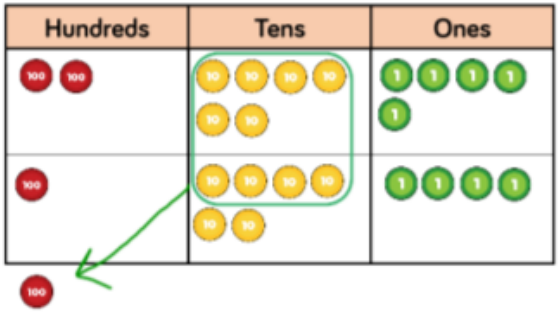




$$265 + 164 = 429$$



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



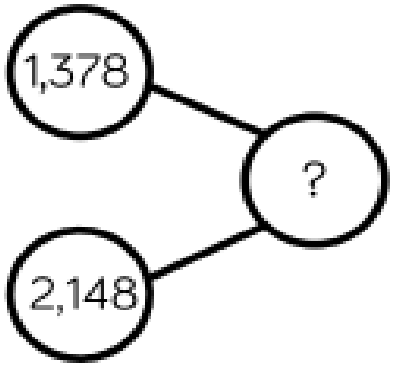
Previous Learning

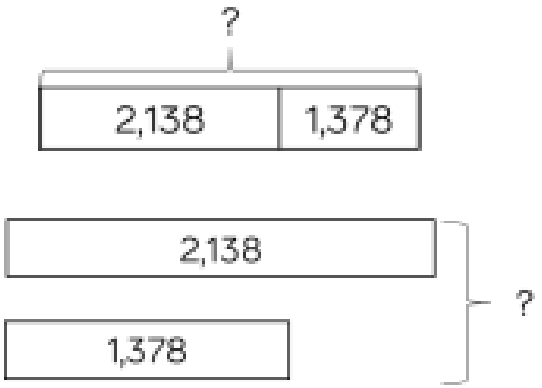
Your child will have begun to more confidently and independently use the bar tool to represent the calculations they are completing.

Your child will have used base 10/dienes and place value counters to support them when adding numbers with up to three-digits.

They will have been encouraged to write their calculation alongside the concrete/pictorial representations that they will have used.

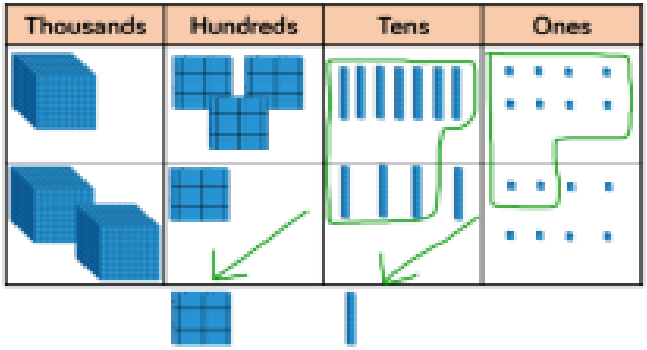
Skill: Add numbers with up to 4 digits



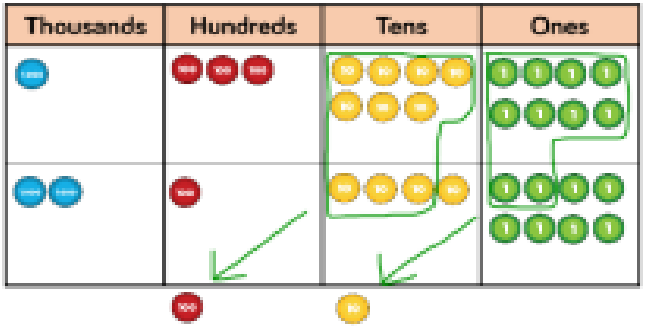


	1	3	7	8
+	2	1	4	8
	3	5	2	6
	1	1		

1,378 + 2,148 = 3,526



Dienes Apparatus (Base 10)



Place Value Counters

New Learning

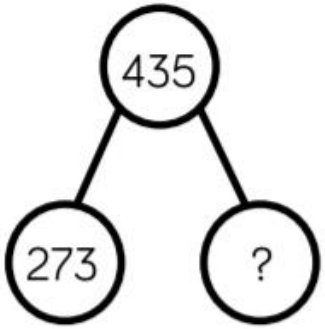
Your child will use a range of representations and work with numbers up to 4-digits.

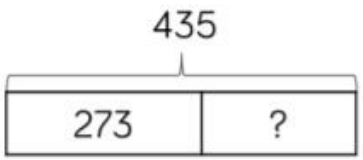
They should be able to complete written column addition.

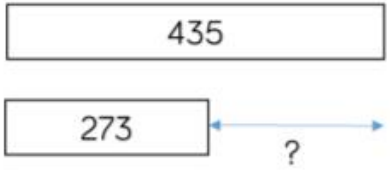
Your child may also like to use more concrete or pictorial representations to support their workings.

Subtraction

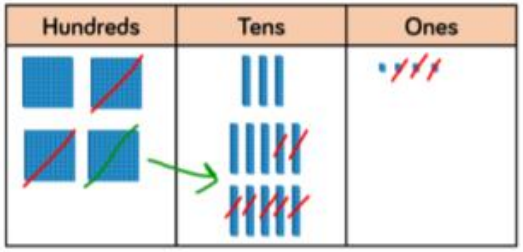
Skill: Subtract numbers with up to 3 digits



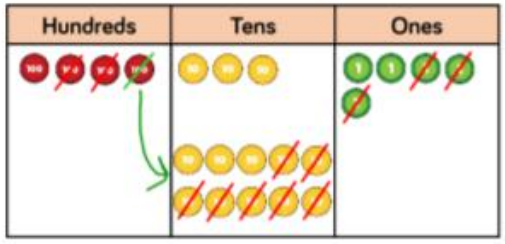




$$435 - 273 = 262$$



$$\begin{array}{r} {}^{3}\cancel{4}^{1}35 \\ -\ 273 \\ \hline 262 \end{array}$$

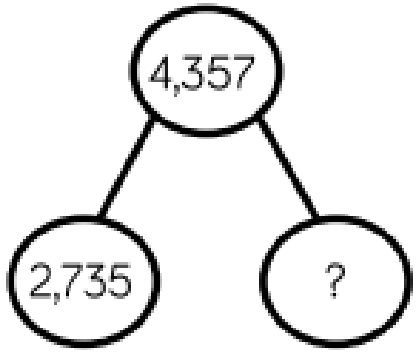


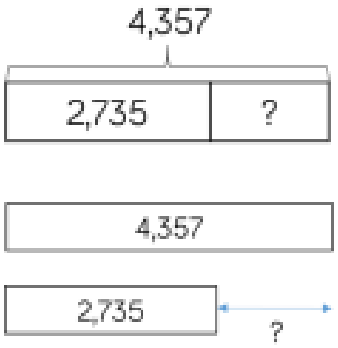
Previous Learning

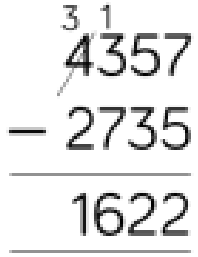
Part-whole models will mostly have made way to use of the bar tool to pictorially represent each calculation your child completes.

Your child will have learned how to complete written column subtraction, but will often have written this alongside the concrete or pictorial representation they have used to understand the process.

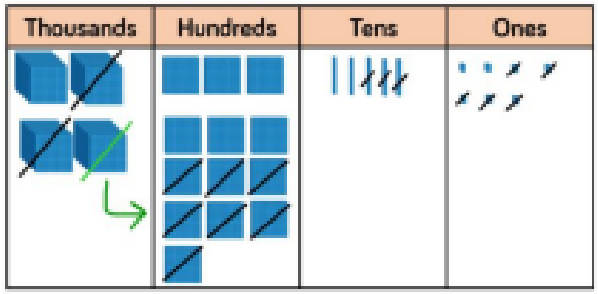
Skill: Subtract numbers with up to 4 digits



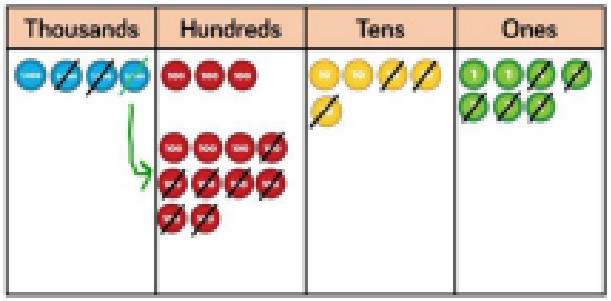




4,357 − 2,735 = 1,622



Dienes Apparatus (Base 10)



Place Value Counters

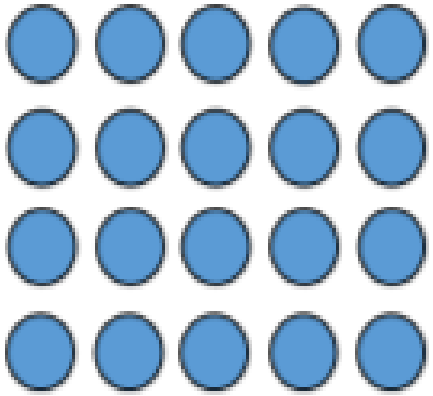
New Learning

Your child will use a range of representations and work with numbers up to 4-digits.

They will be able to complete written column subtraction by the end of the year.

Your child may also need/like to use more concrete or pictorial representations to support their workings. This is perfectly acceptable and will support their understanding and workings.

Multiplication



$$5 + 5 + 5 + 5 = 20$$

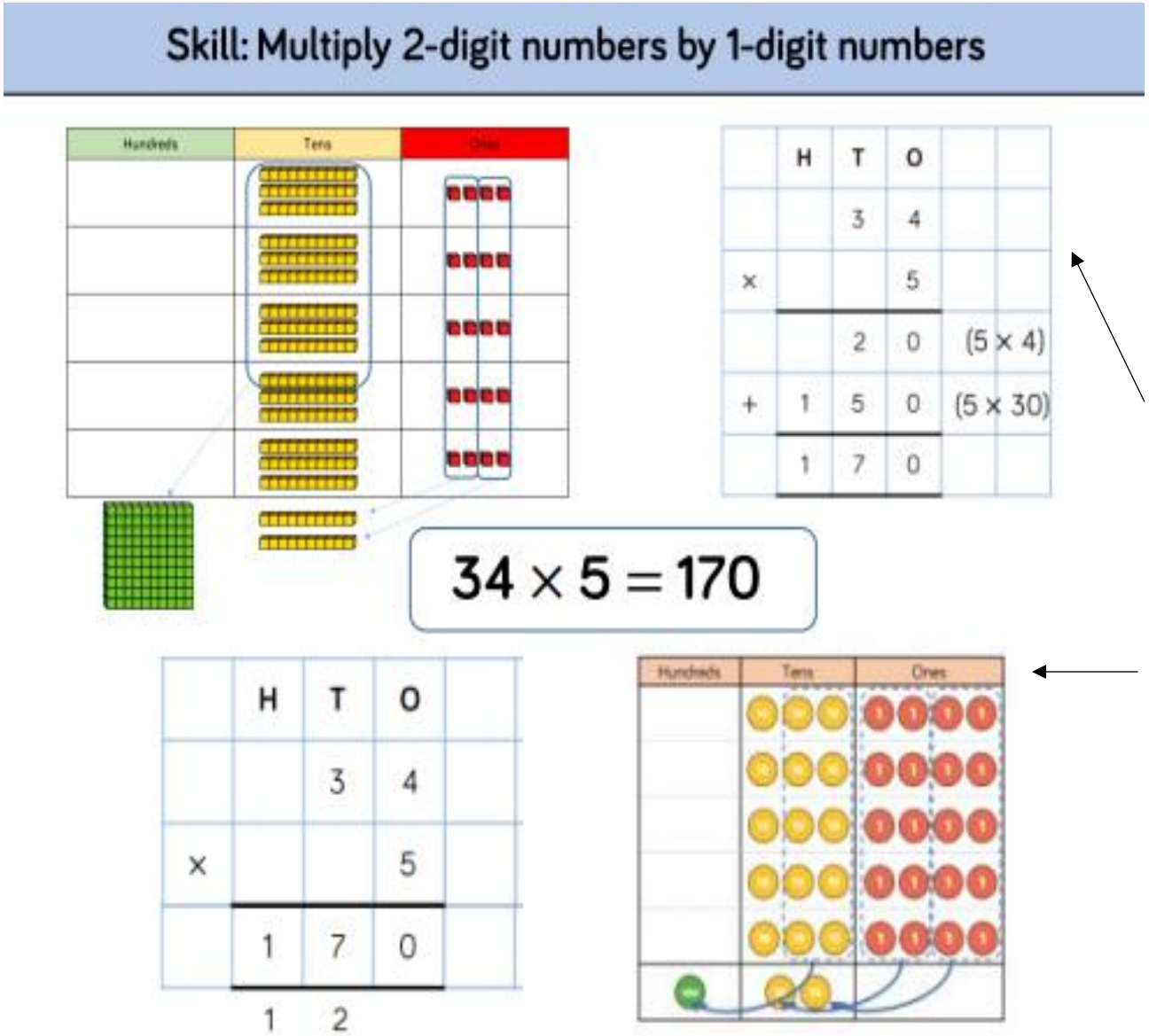
$$4 \times 5 = 20$$

$$5 \times 4 = 20$$

Previous Learning

Your child will have used repeated addition and arrays to support their solving of multiplication problems.

They may have continued with this method throughout Year Three and will only be moving on to formal written methods this year.



New Learning

Your child may still mostly use concrete representations to support their understanding of written methods.

The 'expanded method' of multiplication clearly sets out all of the steps required to solve the problem and will be most used.

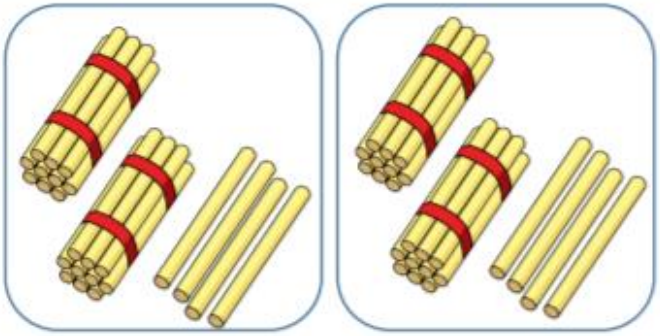
Some children will confidently move on to the use of 'short multiplication' by the end of the year. They will use place value counters to support their understanding of this.

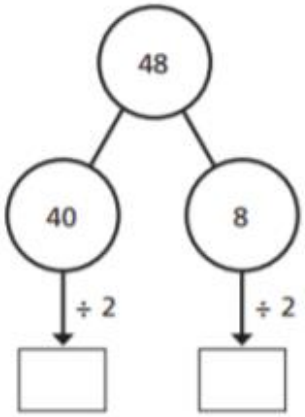
If your child demonstrates that they have a very good understanding of the method, they may move onto multiplying three-digit numbers by one-digit.

Division

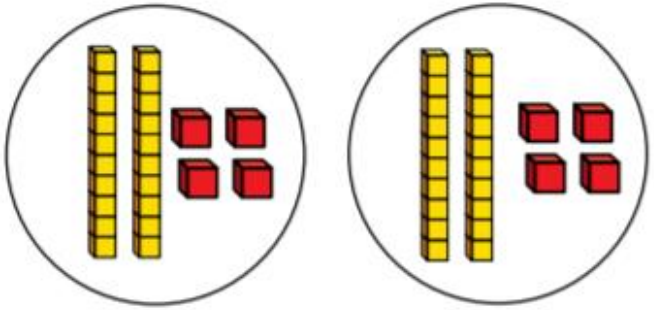
Skill: Divide 2-digits by 1-digit (sharing with no exchange)

Tens	Ones
10 10	1 1 1 1
10 10	1 1 1 1





$48 \div 2 = 24$



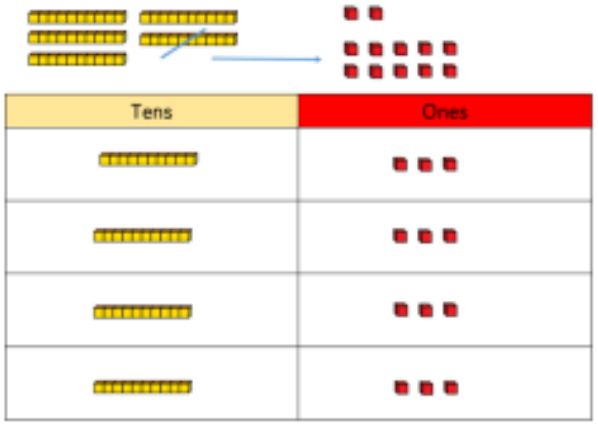
Previous Learning

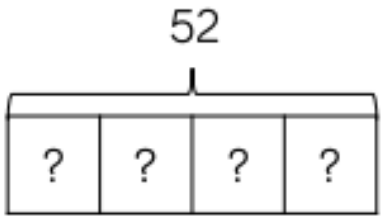
Your child will have learned about how to divide numbers using sharing.

They will have used a range of concrete objects to support their workings.

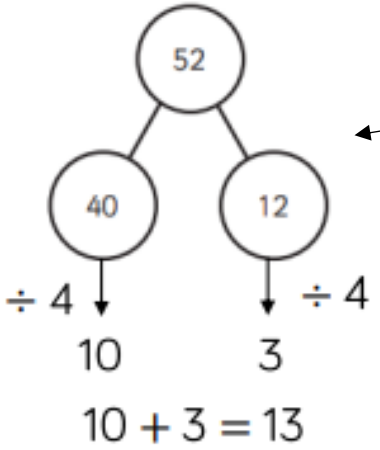
The part-whole model will have been used to partition numbers to make them easier to work with.

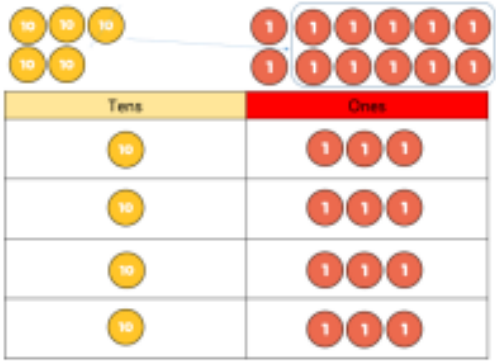
Skill: Divide 2-digits by 1-digit (sharing with exchange)





$52 \div 4 = 13$



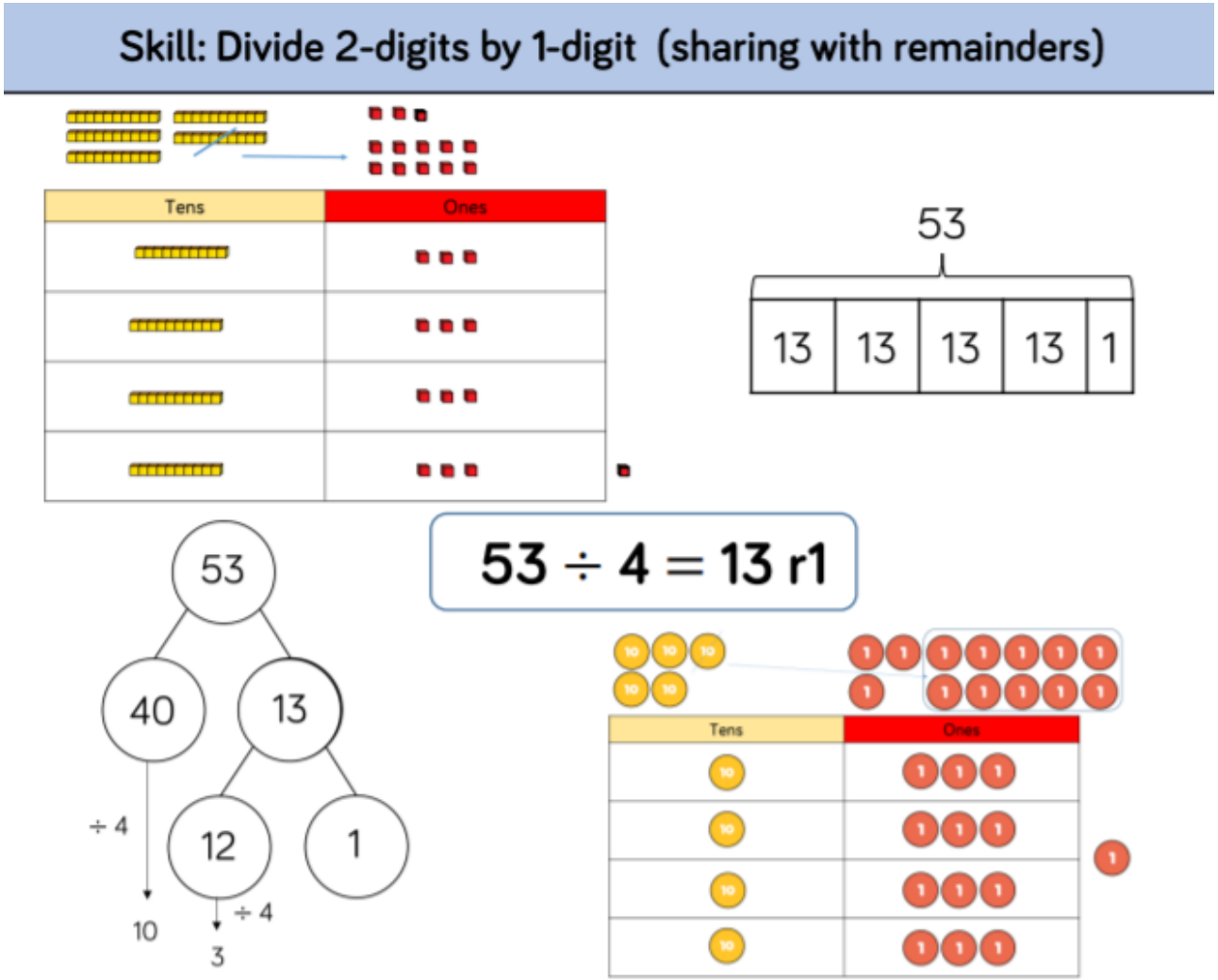


New Learning

Your child will learn how to divide two-digit numbers by one-digit numbers using a variety of methods and will choose their favourite and most efficient.

Some will like to partition and use their times tables knowledge.

Others will still prefer to use concrete representations.

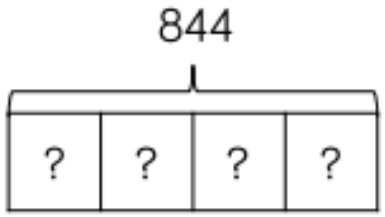


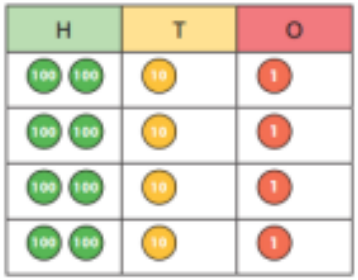
New Learning

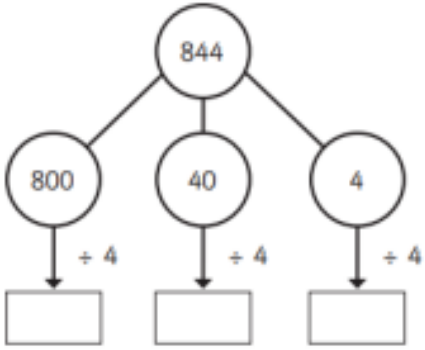
Your child will have solved some problems involving remainders by the end of the year and will understand that this is an amount 'left over' after dividing a number and must be smaller than the divisor.

Skill: Divide 3-digits by 1-digit (sharing)

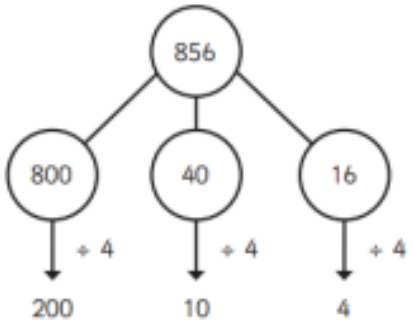
844 ÷ 4 = 211

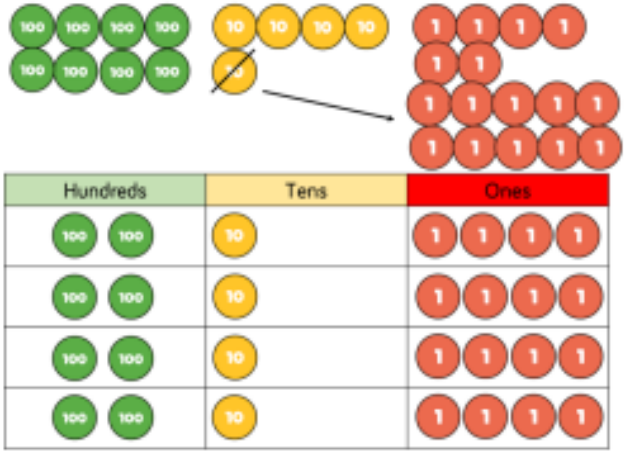






856 ÷ 4 = 214



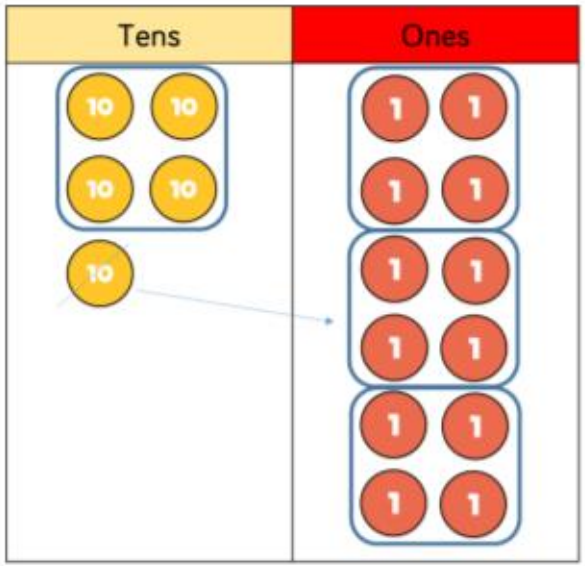


New Learning

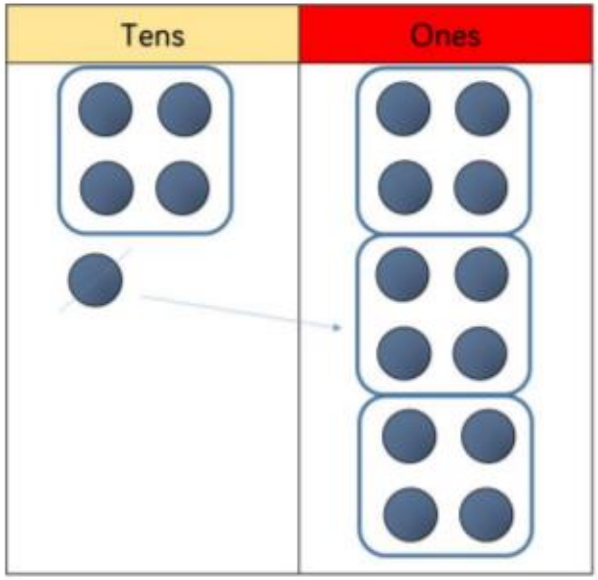
Your child will be taught to divide larger numbers (up to three-digits) by one-digit numbers using sharing.

This will be very well supported using concrete representations and they will begin to learn how to record this pictorially too.

Skill: Divide 2-digits by 1-digit (grouping)



		1	3	
	4	5	$^{1}2$	



$$52 \div 4 = 13$$

New Learning

Your child may begin to use the short division/'bus stop' method.

Starting with the largest place value column, they group by the divisor.

They will be taught 'how many groups of four tens can we make?' and 'how many groups of four ones can we make?'.

These diagrams show how the remaining ten has been 'decomposed' into ten ones, in the ones column.