

Y E A R 2

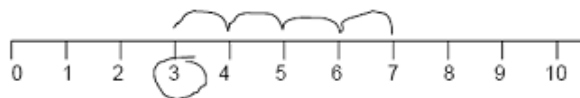
A PARENTS' GUIDE TO MATHS IN THE CURRICULUM

CURRICULUM INNOVATION GROUP

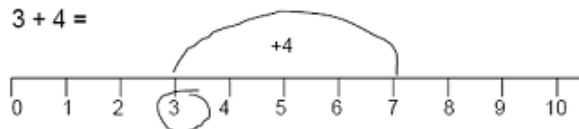


Addition Stage 2

Find the starting number and count on the right amount one jump for each, see where landed by using a number line.



$$3 + 4 =$$



Next work focuses on using a hundred square. Adding 1 to a number and looking at what happens.

$$28 + 1$$

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

8	9	10
18	19	20

Then adding 10 to a 2 digit tens number using 100 square.

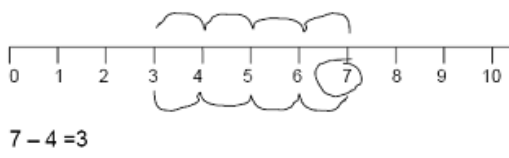
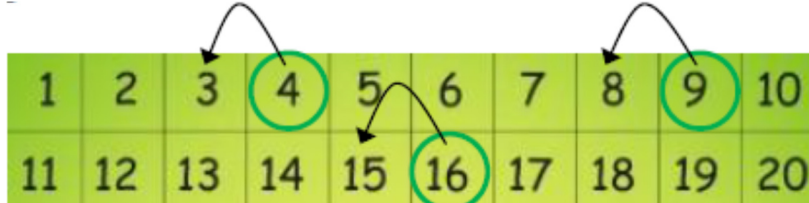
$$23 + 10$$

Then adding any number to a number that is on a hundred square

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



Stage 3	<p>The next stage is partitioning the numbers.</p> <div style="display: flex; justify-content: space-around;"> <div data-bbox="430 313 654 694"> <p>Full Written Method</p> $\begin{array}{r} 68 + 9 \\ \swarrow \quad \searrow \\ 60 \quad 17 \\ \swarrow \quad \searrow \\ 77 \end{array}$ </div> <div data-bbox="798 313 1101 873"> <p>Abridged Writing Stage</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; width: 40px; text-align: center;">60</div> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; width: 40px; text-align: center;">17</div> </div> <p style="text-align: center;">$68 + 9$ $60 + 17 = 77$</p> <p>Additional Stage if required</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; width: 40px; text-align: center;">60</div> <div style="border: 1px solid black; border-radius: 50%; padding: 10px; width: 40px; text-align: center;">17</div> </div> <p style="text-align: center;">$68 + 9$ $60 + 10 = 70$ $70 + 7 = 77$</p> </div> </div>
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Subtraction Stage 2	<p>The next step is to use the number sentence and be able to solve it.</p> <p>Find the starting number and then count back to the correct number using a number line.</p> <div style="text-align: center;">  </div>
Stage 3	<p>The next stage is to be able to use a 100 square.</p> <div style="text-align: center;">  </div> <div style="text-align: right; margin-top: 20px;">$4 - 1 = 3$</div>



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
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91	92	93	94	95	96	97	98	99	100

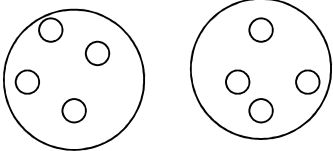
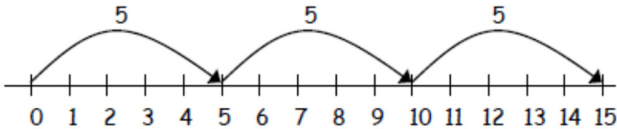
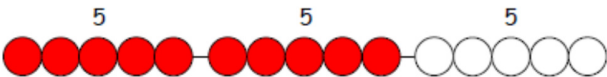
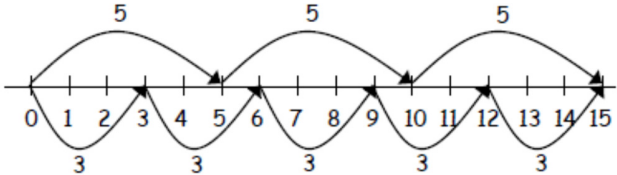

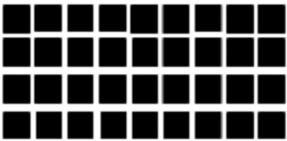
$$40 - 10 = 30$$

Find a starting number and count back 10. For example 80-10 or 81 -10

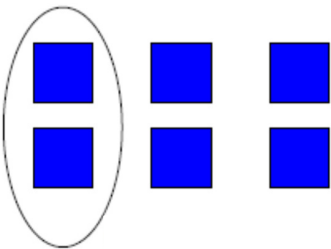
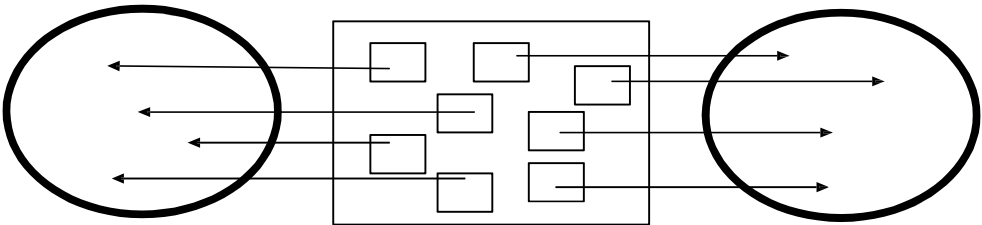
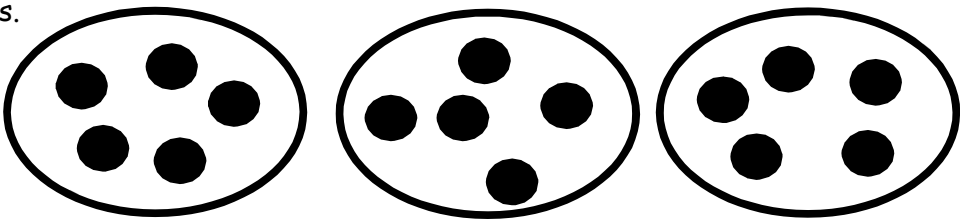
Then from any starting number, count back the correct amount, for example 48-5.

To be able to subtract any 1digit number from any 3 digit number, use a blank number line.



<p>Multiplication Stage 2</p>	<p>Draw dots for each object as they set them out in lots of.</p> <p>$4+4$ or $2 \times 4 = 8$</p>  <p>Seeing the repeated addition is the next stage.</p> <div style="border: 1px solid black; padding: 5px; width: fit-content; margin: 10px auto;"> $3 \text{ lots of } 5 = 3 \times 5 = 5+5+5$ </div>   
<p>Stage 3</p>	<p>The next step is to use arrays.</p> <div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>$5 \times 3 = 15$</p> <p>$3 \times 5 = 15$</p> </div> <div style="text-align: center;">  <p>$9 \times 4 = 36$</p> <p>$4 \times 9 = 36$</p> </div> </div>



<p>Division Stage 2</p>	<p>The next stage is to use the language associated with division and being able to read a division number sentence.</p> <p>When sharing out objects, they are placed one at a time into different containers.</p> <p>$6 \div 3 = 2$</p>  <p>Taking turns to give each pile one at a time, finding out how many altogether by counting in each group.</p> <p>Half of 8 = 4</p>  <p>This includes finding a half of objects</p>
	<p>Children are encouraged to find how many altogether by counting in 2s, 5s or 10s.</p>  <p>5, 10, 15 →</p> <p>Then arrange a division number sentence.</p> <p>15 blocks going into piles of 3 How many lots of 3 are there in 15</p>



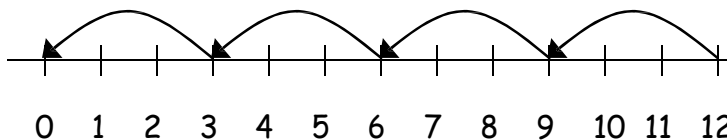
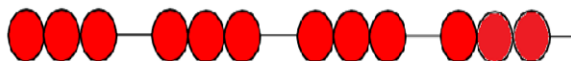
15 ÷ 3

15 blocks going into piles of

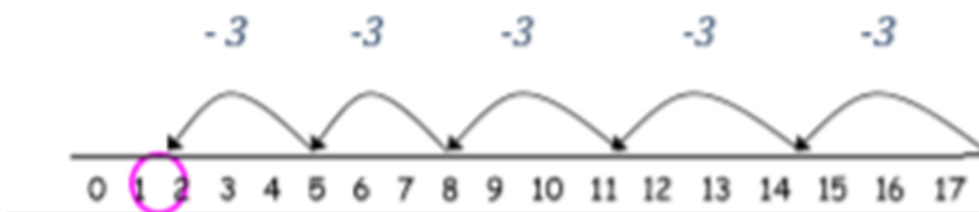
How many lots of 3 are there in 15

Examples:

$$12 \div 3 = 4$$



$$17 \div 3 = 5 \text{ r } 2$$



Year 2-Suggested games to play at home which promote mathematical development

By the end of Year Two, children are expected to be confident with numbers to at least 100.

I can read and write all numbers to at least 100 in numerals and words:

Play number bingo or pairs - matching numbers to numbers or numbers to calculations;

Try writing numbers using different media (chalk, pencils, pens);

Read numerals in real life environments e.g. door numbers, road signs.

I can recognise number patterns; such as recognising odd and even, counting in steps of 2,3,5 and 10:

Look at number patterns on doors when walking up the street;

Try counting everyday objects, including larger numbers by grouping in 2s, 3s, 5s, 10s;

Play board games (to encourage the children to count as they move their playing piece). Also try card games;

Count as walking up the stairs (in 1s, 2s, 3s, 5s and 10s);

Count or tally the number of different vehicles when travelling in the car.

I can recall and use multiplication and division facts for the 2, 5 and 10 times table:

Sing number songs (multiplication CDs);

Focus on one table at a time until the children can recall the facts as quickly as they can recall their name (randomly as well as in order).

I can add and subtract two 2-digit numbers:

This is something we are aiming for at the end of year 2. Over the year we will build up to this starting first with 2-digit +/- 1 digit, then 2-digit +/- 2 - digit;

Using the children's toys to add, subtract and sort into groups.



I know the fractions $\frac{1}{3}$, $\frac{1}{4}$, $\frac{1}{2}$ and $\frac{3}{4}$, and can use them to find fractions of shapes, lengths and numbers:

Share out food and toys so that each member of the group has an equal quantity; find half ($\frac{1}{2}$), quarter ($\frac{1}{4}$) and thirds ($\frac{1}{3}$) (sharing out a box of smarties, bunch of grapes, box of Lego);

Make shapes using dough, find half ($\frac{1}{2}$), quarter ($\frac{1}{4}$) and thirds ($\frac{1}{3}$);

Begin to look at fractions that equal the same amount ($\frac{2}{4} = \frac{1}{2}$).

I can compare, order and problem solve using measures such as length, mass, capacity, time and money:

Cook and bake - weigh out ingredients, measuring liquids;

Use the clock to illustrate tea time and how long it is until an event (to the nearest 5 minutes, quarter past and quarter to);

Time activities - estimating and measuring how long an activity could take eg. getting dressed, car journey, length of a film;

Display a child's calendar, focusing on the days of the week, how many days / weeks or months until special events;

Play shops, pricing items and paying for them using real coins;

Encourage your child to select the correct coins to pay for small items;

Sort coins from their money box or your purse;

Measure how many footsteps it takes to walk to certain places (eg. down the drive) and compare the child's with the adult's;

Measure different objects using a tape measure or ruler;

Use different containers in the bath to see which holds the most water, measuring scales.

I can find shapes and talk about their properties:

Go on shape hunts when walking or in the car (look for quadrilaterals, polygons, cuboids, prisms and cones);

Find 2d shapes on 3d shapes (circle on a cylinder, square on a cube)



With your child practice their rapid recall of the following:

- Number bonds to 10 (4+6, 8+2)
- Number bonds to 20 (11+9, 4+16)
- Counting in steps of 2s, 3s, 5s (forwards and backwards)
- Recognise odd and even numbers
- Recall 2s, 5s, 10s times tables
- Recall division facts for 2s, 5s, 10s times tables; e.g. $5 \times 10 = 50$ so $50 \div 10 = 5$
- Counting forwards and backwards in 10s from any number

To see the whole of your child's Year 2 curriculum, use the following link:

The National Curriculum for Mathematics

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/335158/PRIMARY_national_curriculum_-_Mathematics_220714.pdf

Websites that are useful:

<http://resources.woodlands-junior.kent.sch.uk/maths/>

<http://www.kidsmathgamesonline.com/>

<http://www.bbc.co.uk/skillswise/maths>

<http://www.bbc.co.uk/education/subjects/z826n39>

