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Family Maths Workshop

September 2021

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Aims

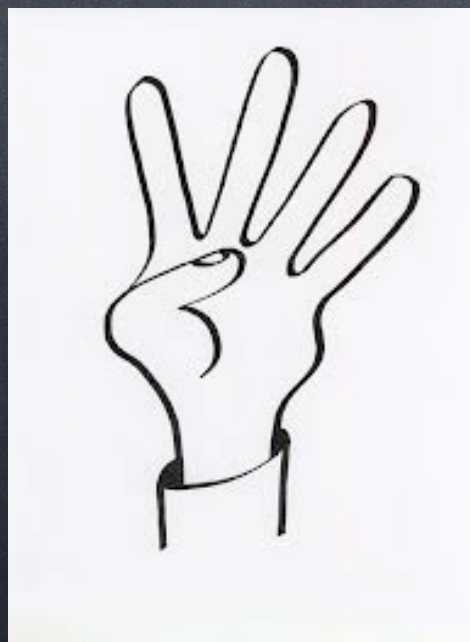
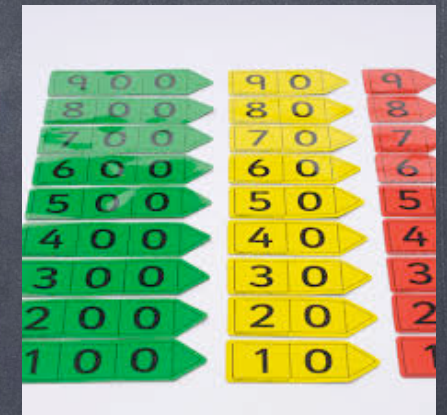
- To introduce the resources used in Year Two for teaching number and calculation.
- To provide ideas and resources for supporting your child in using these methods.
- To give an opportunity for using these methods to support your child.

Background

- In Curriculum 2014, mathematics has three main aims. For children to become **fluent**, to be able to **reason mathematically** and to **solve problems**.
- In order to do this, children need firm foundations in their understanding of number if they are to be able to apply their knowledge flexibly.
- They need to be secure using concrete resources before they move on to more representational or abstract methods.

Concrete Resources

Examples of concrete resources include:



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

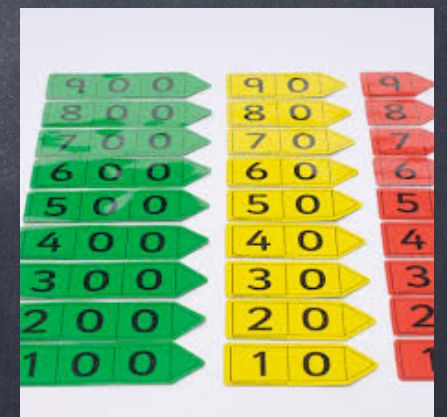


Place Value

Some of these specifically lend themselves to supporting children with place value. This is something children need to understand as they start to work with bigger numbers.



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



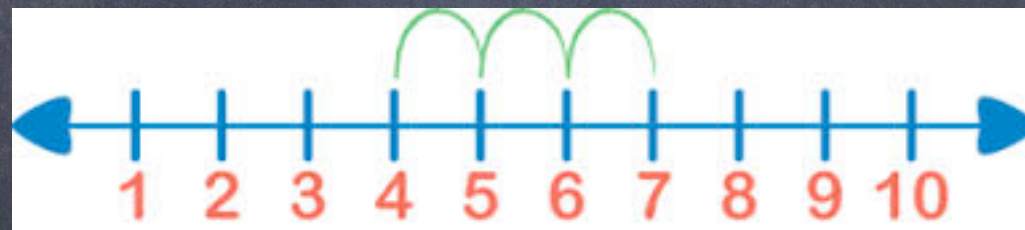
Steps in addition (1)

- 1:1 correspondence
- Counting all the objects
- Counting on



Steps in addition (2)

Counting on in jumps
using a number line



$$4 + 3 =$$

Steps in addition (3)

Counting on using a 100 square

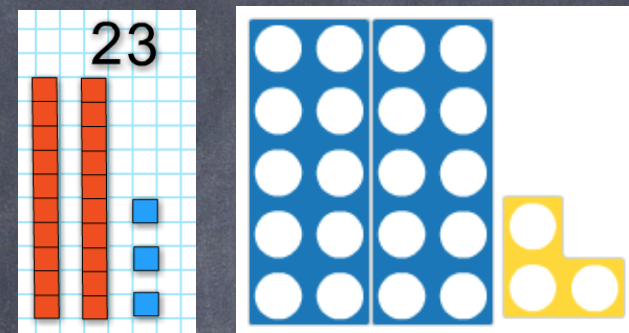
Counting on in 10s and 1s on a 100 square

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

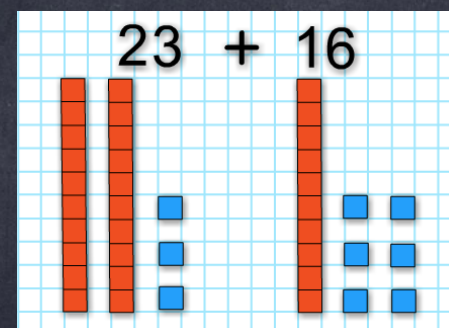
Steps in addition (4)



- Make a number using dienes or numicon



- Make the sum and count the blocks



Progression

Add/subtract using cubes, counters or fingers.



CONCRETE

Use a 100 square, or number line to count on and back



Use dienes apparatus to add numbers together

REPRESENTATIONAL

Use paper and pencil methods to draw tens and units
Use empty number lines to add and subtract



ABSTRACT

Begin to use formal addition and subtraction methods (e.g. column addition and subtraction)

Your Turn...

odd	even	odd	even	odd
even	odd	even	odd	even
odd	even	odd	even	odd
even	odd	even	odd	even
odd	even	odd	even	odd

- Your child has a '4 in a row' game to play with you. You need to turn over a question card, try and work out the answer. When you have worked it out, decide if it is odd or even and colour in a box that matches. Try and get 4 in a row! You can then try and get another 4 in a row!
- Your child has questions appropriate for the level he/she is working at, but if you feel the questions are too hard/easy let us know and we can give you another set.
- Remember to use the resources provided. There is nothing wrong with using 100 squares, apparatus, informal jottings or fingers if they help! Use your turns to model the methods to your child – see if he/she notices any deliberate mistakes or if he/she can help you with the different methods. A great chance to model values with your child!