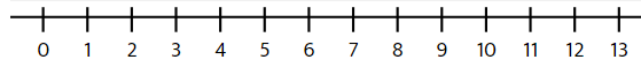


Online Maths tools to support learning

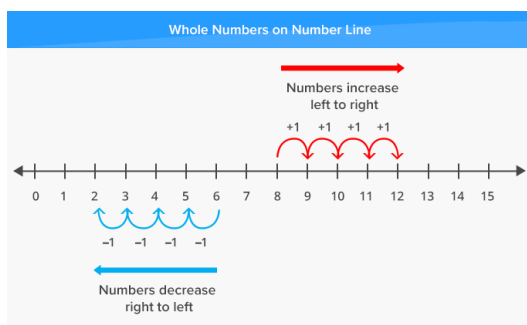
Number line

<https://toytheater.com/number-line/>

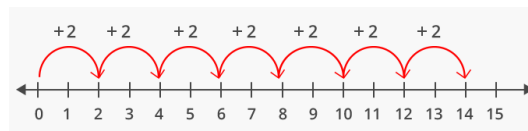


A number line is a straight line with numbers placed along aiming to help children understand the abstract concept of 'number'. It can be used to help children understand the order of numbers and that numbers on the left are smaller than numbers on the right.

Children can use a number line to practise many skills including counting forwards/backwards, finding missing numbers, addition, subtraction and division. We always move **right** to add, move **left** to subtract and **skip count** to multiply.



Skip counting in 2s:



Number grid

<https://mathsframe.co.uk/en/resources/resource/71/itp-number-grid>

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

A number grid (also known as a hundred square) is a square that's filled with numbers 1-100. Each square has a digit and a place value e.g. 46 has the digits 4 and 6; the place value is 4 tens and 6 ones. Children can use the number grid to learn number sequencing, counting forward/backwards, finding odd/even numbers as well as solve addition and subtraction problems.

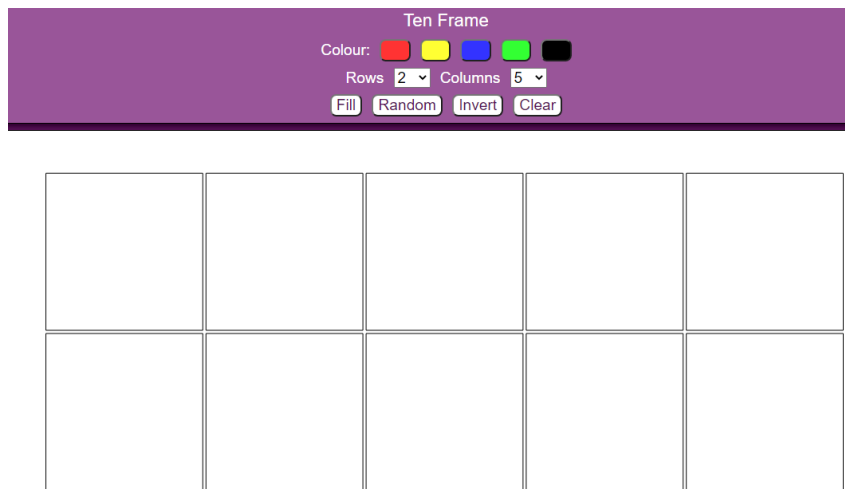
A number grid can also be useful for skip counting and noticing patterns. For example counting in 2s.

A 10x10 number grid from 1 to 100. The numbers 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, 62, 64, 66, 68, 70, 72, 74, 76, 78, 80, 82, 84, 86, 88, 90, 92, 94, 96, 98 are highlighted in green.

Online Maths tools to support learning

Tens Frame

<https://mathsbot.com/manipulatives/tenFrame>

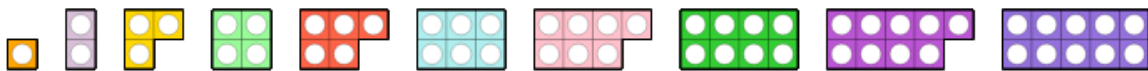


A tens frame is a two-by-five rectangular frame into which counters are placed to demonstrate numbers less than or equal to 10. Counters can be arranged in different ways to represent different numbers, which visually help children develop strong number sense.

Children can fill a tens frame with two different colour counters to practise number bonds e.g. 1+9, 2+8, 3+7, 4+6, 5+5 etc. They could also use two tens frames side by side to practise number bonds to 20 e.g. 1+19, 2+18, 3+17 etc. A tens frame can also be a useful tool to help children practise skip counting i.e. counting forwards and backwards in 2s, 5s and 10s.

Numicon

<https://mathsbot.com/manipulatives/numberFrames>



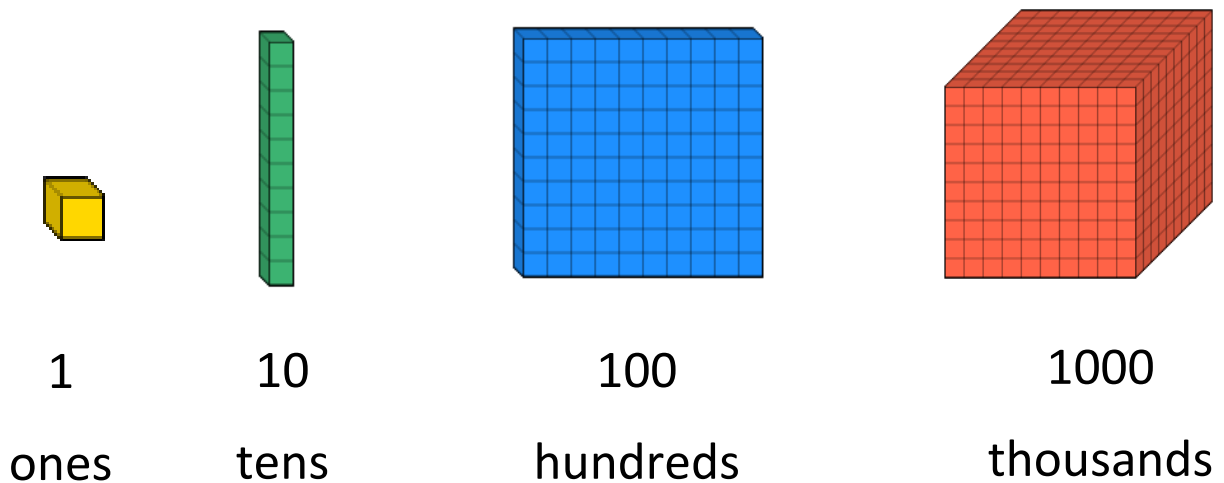
This resource helps children to play with concrete apparatus to explore number, for example one six piece of Numicon. How many other pieces can you fit on top of this one six piece? Write these as number sentences $4+2=6$, $1+5=6$ etc.

Children can add and subtract using Numicon, learn their number bonds to 10 and partition numbers e.g. make 19 with Numicon pieces (this is the whole number) then split the number into its 10 and ones i.e 1 ten and 9 ones (these are the 2 parts that make up the whole). Are there any different ways you could make the 9? $5+4$, $8+1$ etc.

Online Maths tools to support learning

Dienes Blocks

<https://mathsbot.com/manipulatives/blocks>

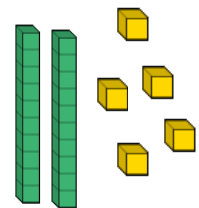
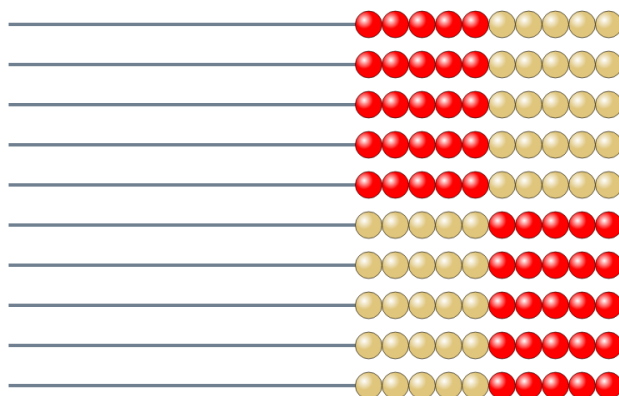


Dienes blocks (also known as base ten or multi-base arithmetic blocks) are a practical resource which helps children to learn basic Maths skills such as number sense, place value, addition and subtraction. The blocks represent different values (see above).

Children can use Dienes blocks to help them get an understanding of what the digits in a number represent by making the number e.g. 25 can be practically made as

Bead String

<https://mathsbot.com/manipulatives/rekenrek>



A bead string (otherwise known as Rekenrek or Abacus) is used to practise counting by sliding beads. It can be used for counting backwards and forwards or skip counting e.g. moving 2 beads along at one time.

Children can use a bead string to help solve addition and subtraction questions. For example, when solving $4+5$ first move 4 beads along, then another 5. Count the total to find the answer.