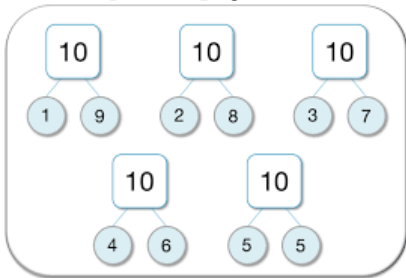


Visual Representations for Maths Lessons at Spring Grove

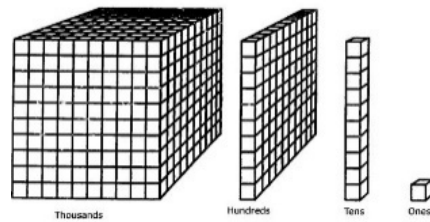


Part-whole model

10 is the whole in this example.
Add the 2 parts to make the whole.
More examples on page 3.



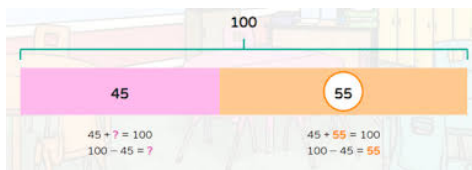
Diené's (ones, tens, hundreds and thousands)



Place value chart

hundreds	tens	ones	tenths	hundredths
	3	8	.	
3	8	0	.	
			.	

Bar model



More examples on page 3.

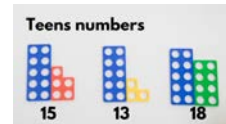
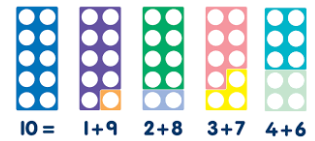
[Link to NCETM bar model explanation](#)

Array

12 = 3 lots of 4
 $12 = 3 \times 4$



Numicon



[Video Link](#)

Partitioning cards



$$999 = 900 + 90 + 9$$

Grid method

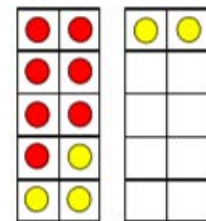
23×4	20	3
4	80	12

Grid Method explained

<https://www.youtube.com/watch?v=5GjF18A-tC0>

Tens frame

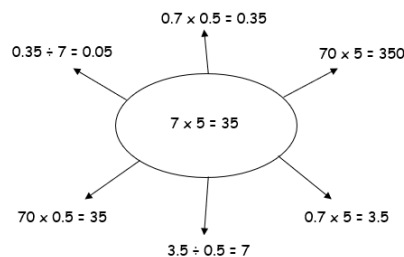
$7(\text{red}) + 5(\text{yellow}) = 12$
Partition (split) the 5 into 2 and 3 to make a complete 10.
 $10 + 2 = 12$



Hundred 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
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

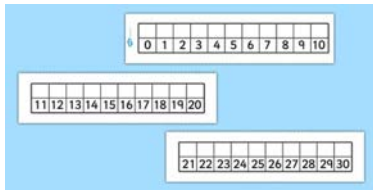
Brainstorm



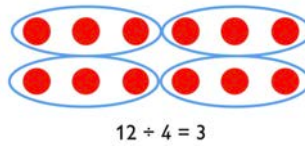
Number line



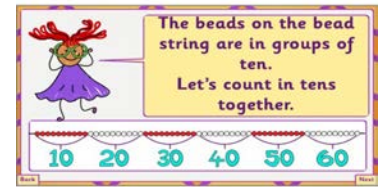
Number track



Counters

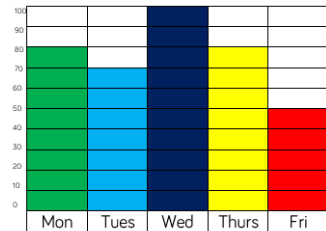


Bead String

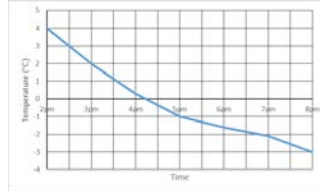


[Adding Video](#)
[Dividing Video](#)

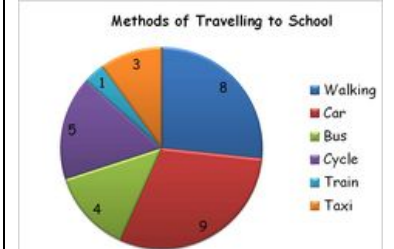
Bar chart



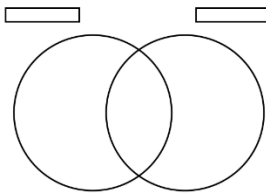
Line graph



Pie chart



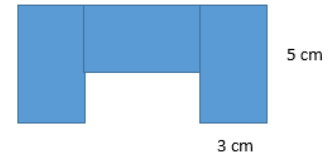
Venn diagram



Carroll diagram

	odd	even
< 1000	953 201	888 450
> 1000	1501 9349	8000 2542

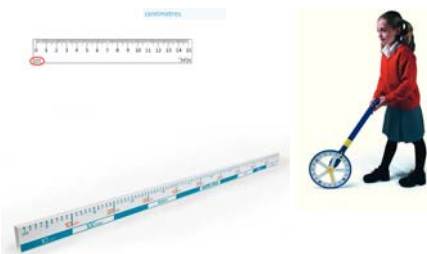
Shape images



Scales



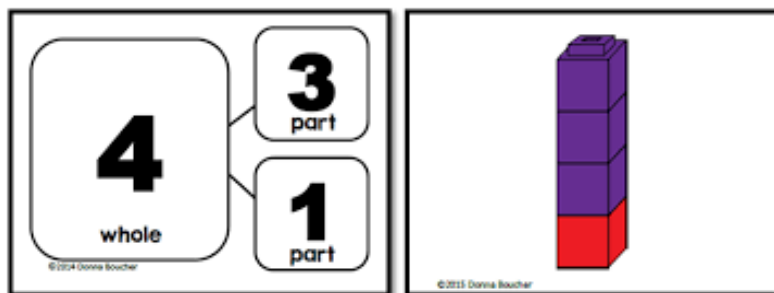
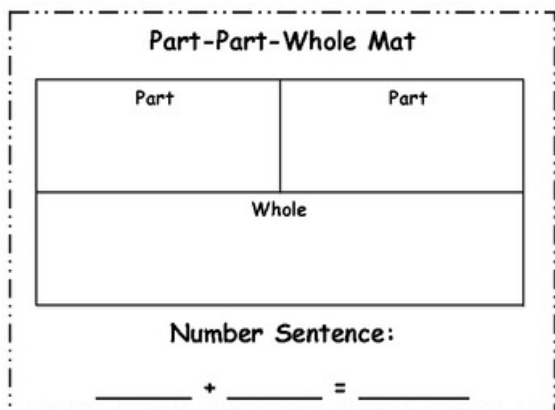
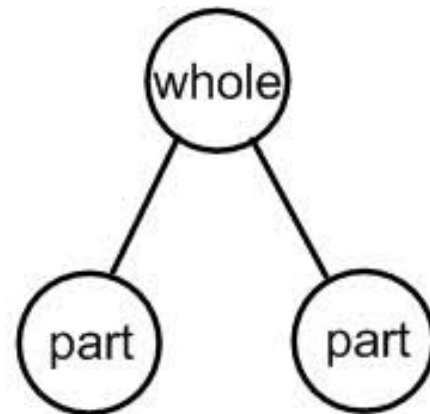
Rulers, Metre Sticks and Trundle Wheels



More on Part-Whole

You may hear the children talk about the 'part, part, whole' model in maths. Here are some examples.

We use these models so children can gain a deeper, clearer understanding of working with number. These models will follow them through school and will help with their understanding of number, fractions and a range of other areas as they progress through school.



These also give the children an opportunity to show their thinking visually and talk their ideas through, developing reasoning skills and help to solve problem solving tasks.

Bar Models

3 ?

7

$7 - 3 = ?$

$3 + ? = 7$

This bar model, for example, can help develop an understanding of the relationship between addition and subtraction.