



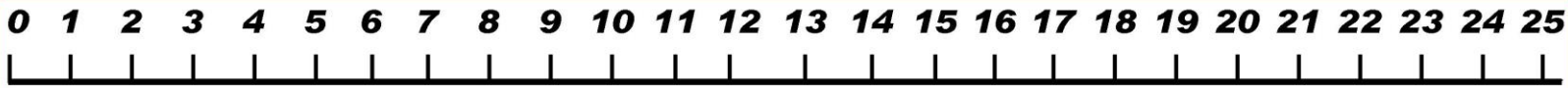
Maths for Key Stage 1



2015

Main focuses in Maths - Addition and Subtraction

- Counting on - Children always use a number line



E.g. $10 + 6 = 16$ - the children would start at the largest number then count on 6.

- Counting back - Children always use a number line



E.g. $10 - 6 = 4$ - the children would start at the largest number and count back 6 using the number line.

Eventually children will begin to use their knowledge of number facts , e.g. bonds to 10, to calculate and only count on or back when necessary.

The number line lets children see the order of numbers and what comes before and after each number. Children who find numbers difficult at first may find it easier to follow when the numbers on the line are bigger, handwritten or they use a number track, e.g.

1	2	3	4	5	6...
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Understanding the amounts that each numeral (the written number symbol) represents is crucial to a deep understanding of number. Concrete resources and manipulatives are used in school to help the children to visualize these amounts. You can help at home by asking children to compare amounts. This could be:

- When carrying bags, comment on one bag being lighter than the others.
- Commenting on the amount of grapes you have compared to your child, e.g. 'I have six grapes and you have eight grapes. That means you have two more grapes than me.' The grapes can be lined up to emphasise the concept.

- When using dominoes and dotty dice while playing games, ask the children to look for different arrangements of the same amount.
- Encourage children to 'subitise' amounts within the environment (subitising is when an amount up to six, arranged or random, can be recognised without having to count) so if there are three birds on a telephone line, discuss with your child that you can 'see that there are three' without having to count them in ones'.

* If you don't have a number line at home you could use a ruler!

When children become more confident with number we move them from a number line to a hundred square (usually by the time they get in to Year 2).

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

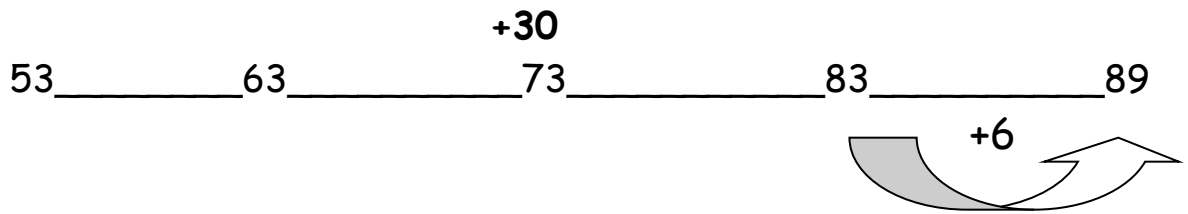
Children then become familiar with numbers up to 100 and can start to see patterns. We still encourage children to count on and back but for the more able mathematicians we start to teach them partitioning.

- Partitioning - This is used when adding large numbers. *Partitioning* means 'splitting' one of the numbers into 'tens' and 'units'.

E.g. What is $53 + 36$?

We start at 53 in our heads and then add 30, by counting on in tens, then add 6:





* If children find other methods easier they can use them instead. E. g. $50 + 30 = 80$

$$3 + 6 = 9$$

$$80 + 9 = 89$$

In school children will be using 'Base 10' resources and items bundled into tens and ones/units to help them understand the concept in a concrete form. To continue with this at home, bundles of straws with elastic bands and single straws are an easy model to make at home.

Multiplication and Division

Children will be taught their 2, 5 and 10 times tables in Key Stage 1. We start by looking at the 100 square and

finding patterns within it. We then count on in 2's, 5's and 10's aloud.

We then introduce the 'X' symbol. We refer to 'X' as 'lots of' and 'groups of'. Children use bricks, counters etc to help them count on and back in 2's, 5's and 10's. We encourage the children to use their fingers to help them remember how many 'lots of' or 'groups of' they are up to.

E.g. '2 lots of 4' - they know that each finger is worth 2 and they need 4 lots. So hold up 4 fingers and count in 2's. This is where one item can 'stand for' more (or less) than one.



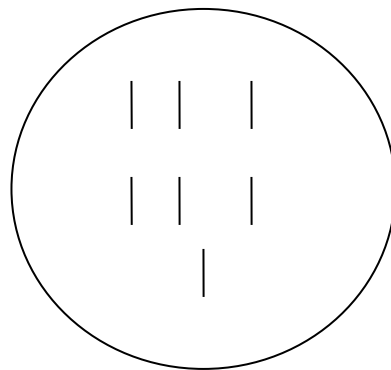
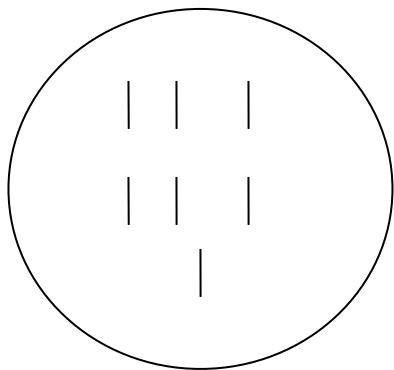
* Some children may find this really difficult to pick up. If they do try counting on in 2's with amounts grouped into twos and then putting these amounts against a track of numbers.

Division - sharing

We start by using lots of cubes, counters and bricks and sharing them out between 2 children. We then move on to sharing them between 5 and 10 children.

When the children are 'sharing' independently we ask them to use mark making to help.

E.g. $14 \div 2 = 7$



We also ask children to place amounts into equal groups, e.g. groups of 2, 5 and 10. Once the children have a sound understanding of this we move on to linking it to their times tables and looking at the inverse operation.

E.g. - $2 \times 4 = 8$

$8 \div 2 = 4$

$4 \times 2 = 8$

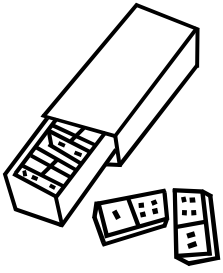
$8 \div 4 = 2$

* Food is always a good example when looking at division, especially sweets, but remember to put items into equal groups as well as sharing them out.

Ideas for games at home

Key Stage 1 - Keep it practical and simple!

- Snakes and ladders
- Counting clothes/pegs on the washing line
- Make your own number line with painted hands and feet on a big piece of paper (messy but lots of fun!)
- If you are in the car - how many red cars can you see? Who can find the most?
- At the shops - how much is 20p add 20p? Which coins could you use?
- In the garden - how many skips can you do? How many jumps can you do?
- When baking - how much flour do I need? Let your children tip the flour on to the weighing scales and read the scale.
- What time will it be when the big hand is on 12 and the little hand is on 3?

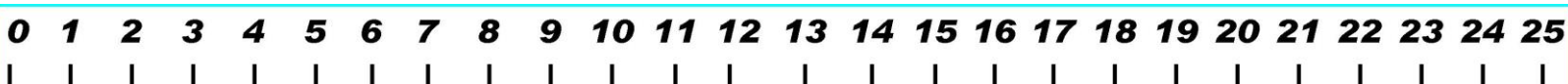
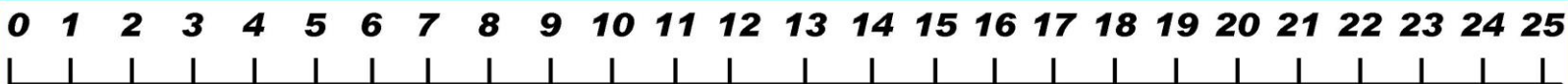
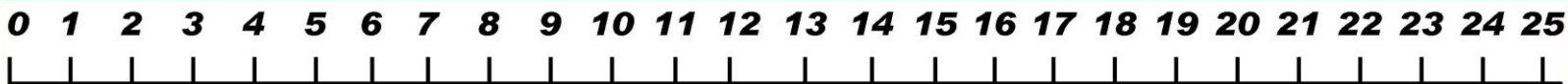
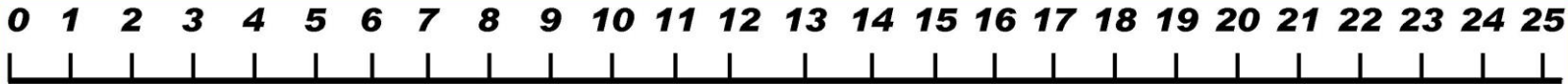


100 Square

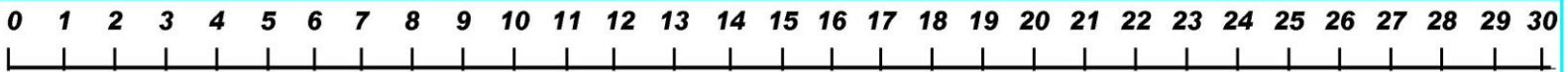
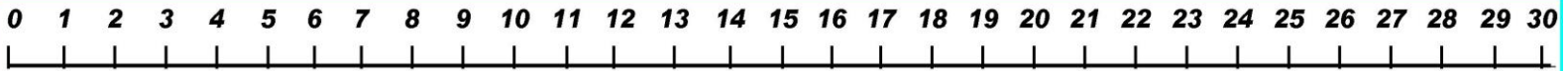
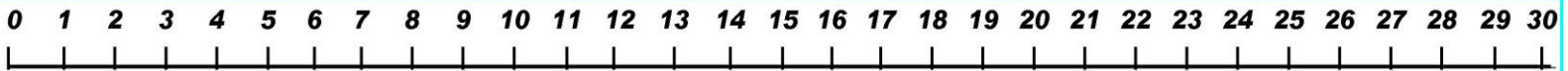
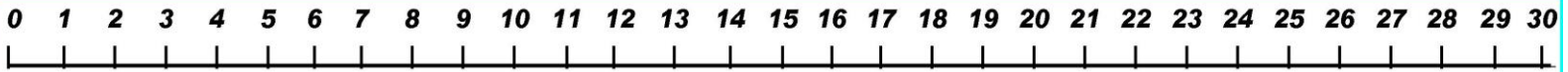
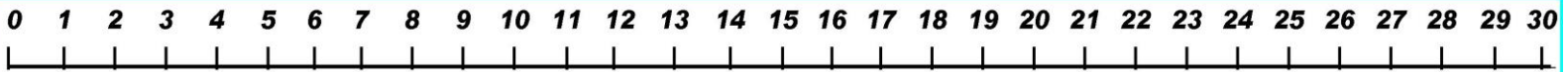
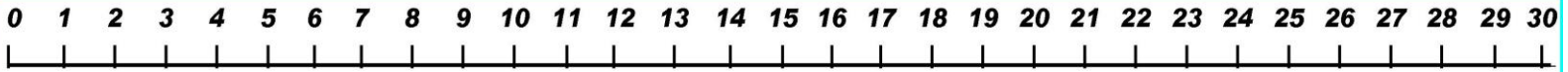
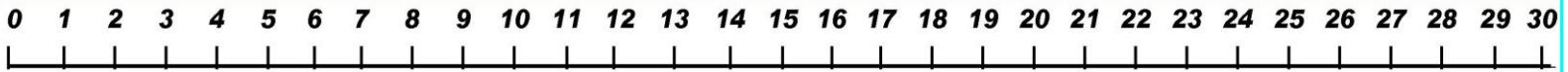
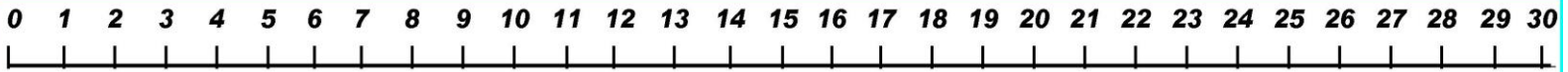
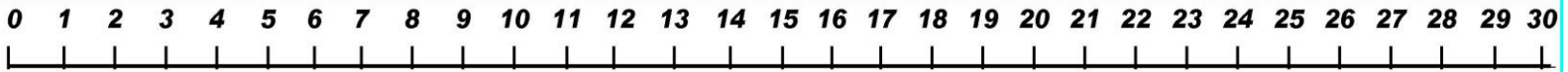
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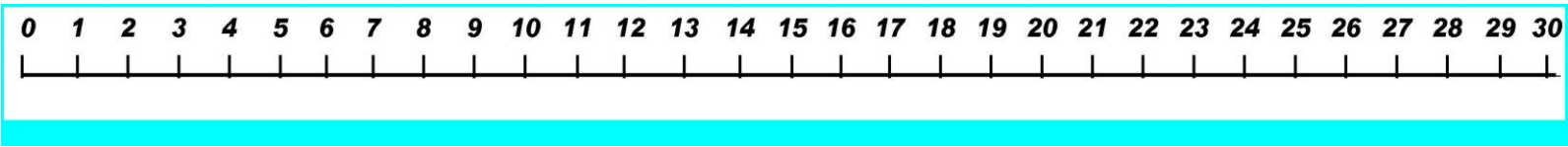
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Number Lines 0-25

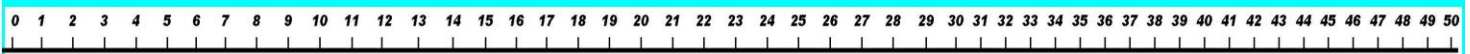
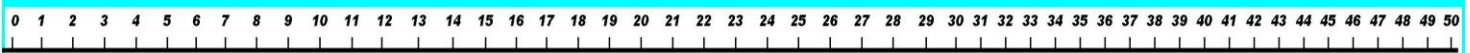
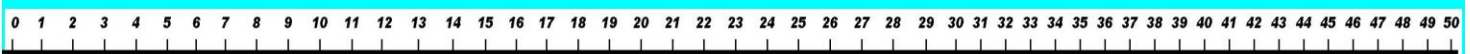
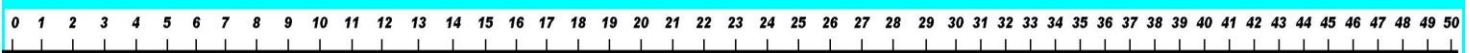
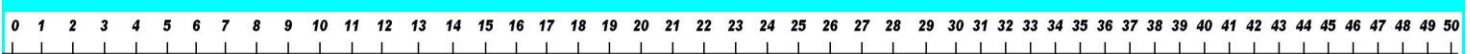
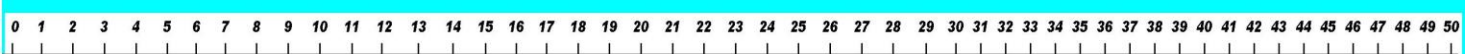
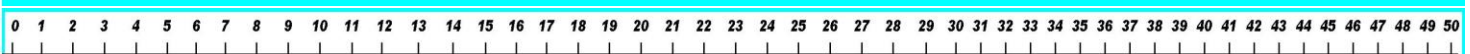
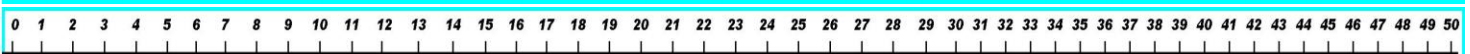
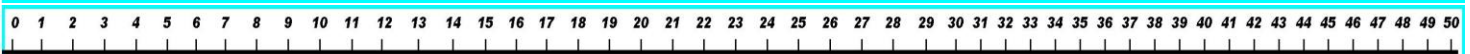
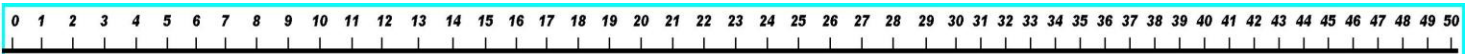


Number Lines 0-30





Number lines 0-50



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0 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

0 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