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Serious about learning

Suites C-E Cnr Victoria & Althorp Sts, East Gosford
Phone 02 4324 0252 02 4324 5524
Email admin@education first.com.au
Web www.educationfirst.com.au

Tony Hollins is the director of the Education First Learning Centre in East Gosford on the NSW Central Coast. He has a masters degree in education and has been an educator since 1982 at all levels from pre-school to university.

Help your child learn the times tables

A child with the ability to quickly recall most or all of the multiplication facts finds mathematics easier than the child who has to take time to work out something that should or could be known to them.

Multiplication concepts, like all number sense, develops gradually over time as a child explores numbers in a variety of situations – first with real objects (such as clothes pegs, dolls or lego blocks), then with drawings of real objects, and finally with just the numerals themselves. When a child realises that five plus five is the same as two groups of five, they are learning about multiplication.

When should children learn the different sets of tables?

Some children are ready earlier or later than this, but usually

Years 1 and 2 1x, 2x, 5x, 10x

Years 3 and 4 4x, 8x then 3x, 6x, 9x then 7x

Years 5 and 6 revision

How to get started with the 2x table

Count up to 20, emphasising the **even numbers** by one of these methods: Whisper 1 say 2 whisper 3 say 4 OR Crouch down say 1 stand up say 2 OR Wave left hand say 1 wave right hand say 2.

Once these **multiples of 2** are known, try **skip counting** by 2s up to 20 using fingers. (Why fingers? Because they're handy.) Close the fist, then release the thumb while saying 2, release the second finger while saying 4...release the thumb on the other hand for 12, etc. Then try saying the 2 times table while using fingers: release the first thumb while saying "one times two is two, two times two is four", etc. Later, the shorthand version is to say "one two is two, two twos are four" etc. If releasing the fingers is difficult, just tap the fingers with the pointing finger of the other hand.

Now the 5x table Try skip counting on your fingers by 5 up to 50. I don't recommend the whispering method here, but the grid shows that if items (or numbers) are arranged in rows of 5, the number on the right end of each row is a multiple of 5, because we are adding 5 each row. This idea of writing numbers in a grid can be used for multiples of any number. Then try saying the 5 times table using fingers. Use the same process for the 10 times table.

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

Use a hundred chart to shade multiples. In the following section of a hundred chart, the **multiples of 4** are highlighted. Children can be helped to discover patterns such as these are all even 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

A multiple of 4 can be found by going down one space and either back 2 or forward 2. This is because going down one space means adding 10, so going back 2 from there means adding 8 (two 4s) and going forward from there means adding 12 (three 4s). Going down two spaces means adding 20 (five 4s).

Use a multiplication chart to highlight duplicates. This chart shows the square numbers shaded dark, acting as a diagonal axis. The numbers below the square numbers are a mirror image, or duplicate, of the numbers above the square numbers.. This is because 2x5 gives the same answer as 5x2. This means only half these facts need to be learned. If we assume that children have no difficulty learning the 1x and 10x facts, that does not leave too much to learn, does it?

X	1	2	3	4	5	6	7	8	9	10
1	1	2	3	4	5	6	7	8	9	10
2	2	4	6	8	10	12	14	16	18	20
3	3	6	9	12	15	18	21	24	27	30
4	4	8	12	16	20	24	28	32	36	40
5	5	10	15	20	25	30	35	40	45	50
6	6	12	18	24	30	36	42	48	54	60
7	7	14	21	28	35	42	49	56	63	70
8	8	16	24	32	40	48	56	64	72	80
9	9	18	27	36	45	54	63	72	81	90
10	10	20	30	40	50	60	70	80	90	100

Helpful relationships

The 5x facts can be seen as half the 10x facts. If 10x6=60, then 5x6= half of 60=30.

The 4x facts can be seen as double the 2x facts. If 2x6=12, then 4x6=2x12=24. And then the 8x facts are double the 4x facts, so 8x6=2x24=48. This is why the 2x, 4x and 8x tables are related.

Likewise the 6x facts are double the 3x facts. If 3x7=21, then 6x7=2x21=42. The 9x facts are triple the 3x facts. If 3x4=12, then 9x4=3x12=36. This is why the 3x, 6x and 9x tables are related.

Tricky ones

Once we know that 7x7=49, we just add 7 for 8x7 or subtract 7 for 6x7.

Amazing nines

Hold your hands in front of you with your fingers spread out.

For 9 x2, bend down your second finger from the left. You have 1 finger left of the bent finger and 8 fingers right of the bent finger, so the answer is 18.

It is never too late to learn the times tables, but it can sometimes be too early. Note that the 11x facts can be learned, but that the 12x facts are not as important as they were before Australia converted to decimal currency and the metric units of measurement. You and your children can practise in the car, the shower, while walking. It only takes a few minutes a day to learn and remember the times tables.