

The Importance of Times Tables?

We all know that learning times tables is an essential part of your child's mathematical education. Children who have mastered their tables gain a solid foundation in mathematics that will help them throughout their progression within the subject. Many children are able to recite in order their timetables, but to truly know the answer to any times table question independently is a skill that takes a lot of hard work. The national expectation is that every child will be able to answer any times table question mentally within a five second period.

The following booklet is design to aid parents in helping children reach this expectation, to work in partnership with their school to strive this goal.

X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	45	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

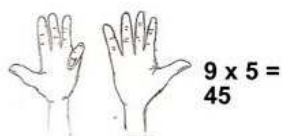
Expectation

Below is a table outlining the national expectations of times table knowledge.

Year 2 2's, 5's , 10's	$0 \times 2 = 0$ $1 \times 2 = 2$ $2 \times 2 = 4$ $3 \times 2 = 6$ $4 \times 2 = 8$ $5 \times 2 = 10$ $6 \times 2 = 12$ $7 \times 2 = 14$ $8 \times 2 = 16$ $9 \times 2 = 18$ $10 \times 2 = 20$	$0 \times 5 = 0$ $1 \times 5 = 5$ $2 \times 5 = 10$ $3 \times 5 = 15$ $4 \times 5 = 20$ $5 \times 5 = 25$ $6 \times 5 = 30$ $7 \times 5 = 35$ $8 \times 5 = 40$ $9 \times 5 = 45$ $10 \times 5 = 50$	$0 \times 10 = 0$ $1 \times 10 = 10$ $2 \times 10 = 20$ $3 \times 10 = 30$ $4 \times 10 = 40$ $5 \times 10 = 50$ $6 \times 10 = 60$ $7 \times 10 = 70$ $8 \times 10 = 80$ $9 \times 10 = 90$ $10 \times 10 = 100$			
Year 3 2's, 3's, 4's, 5's, 6's and 10's.	$0 \times 2 = 0$ $1 \times 2 = 2$ $2 \times 2 = 4$ $3 \times 2 = 6$ $4 \times 2 = 8$ $5 \times 2 = 10$ $6 \times 2 = 12$ $7 \times 2 = 14$	$0 \times 3 = 0$ $1 \times 3 = 3$ $2 \times 3 = 6$ $3 \times 3 = 9$ $4 \times 3 = 12$ $5 \times 3 = 15$ $6 \times 3 = 18$ $7 \times 3 = 21$	$0 \times 4 = 0$ $1 \times 4 = 4$ $2 \times 4 = 8$ $3 \times 4 = 12$ $4 \times 4 = 16$ $5 \times 4 = 20$ $6 \times 4 = 24$	$0 \times 5 = 0$ $1 \times 5 = 5$ $2 \times 5 = 10$ $3 \times 5 = 15$ $4 \times 5 = 20$ $5 \times 5 = 25$ $6 \times 5 = 30$	$0 \times 6 = 0$ $1 \times 6 = 6$ $2 \times 6 = 12$ $3 \times 6 = 18$ $4 \times 6 = 24$ $5 \times 6 = 30$ $6 \times 6 = 36$	$0 \times 10 = 0$ $1 \times 10 = 10$ $2 \times 10 = 20$ $3 \times 10 = 30$ $4 \times 10 = 40$ $5 \times 10 = 50$

	8x2=16 9x2=18 10x2=20	8x3=24 9x3=27 10x3=30	7x4=28 8x4=32 9x4=36 10x4=40	7x5=35 8x5=40 9x5=45 10x5=50	7x6=42 8x6=48 9x6=54 10x6=60	6x10=60 7x10=70 8x10=80 9x10=90 10x10=100
Year 4 All times tables from 2's-10's and the division facts.	AS YEAR 3 AND 0x7=0 1x7=7 2x7=14 3x7=21 4x7=28 5x7=35 6x7=42 7x7=49 8x7=56 9x7=63 10x7=70	0x8=0 1x8=8 2x8=16 3x8=24 4x8=32 5x8=40 6x8=48 7x8=56 8x8=64 9x8=72 10x8=80	0x9=0 1x9=9 2x9=18 3x9=27 4x9=36 5x9=45 6x9=54 7x9=63 8x9=72 9x9=81 10x9=90	42 divide by 6 = 7, 8 divide by 2 = 4 20 divide by 4 = 5 etc		
Year 5 All times tables and related questions.	0x11=0 1x11=11 2x11=22 3x11=33 4x11=44 5x11=55 6x11=66 7x11=77 8x11=88 9x11=99 10x11=110	0x12=0 1x12=12 2x12=24 3x12=36 4x12=48 5x12=60 6x12=72 7x12=84 8x12=96 9x12=108 10x12=120	1/9 of 63 is 7 1/4 of 32 is 8 1/11 of 99 is 9 etc			
Year 6 As Year 5 and squares to 12 x 12. Knowledge of prime numbers <100.	0x0=0 1x1=1 2x2=4 3x3=9 4x4=16 5x5=25 6x6=36 7x7=49 8x8=64 9x9=81 10x10=100 11x11=121 12x12=144	2, 3, 5, 7, 11, 13, 17, 19, 23, 29, 31, 37, 41, 43, 47, 53, 59, 61, 67, 71, 73, 79, 83, 89, 97				

Hints and Tips



1. *Nine times table*

Hold both hands in front of you with all of your fingers up (yes, thumbs too). Whatever number you are multiplying by, put that finger down. The number of fingers to the left of the downed one is the tens place, and the number to the right is the ones place.

For instance: (9)(3)

Put down the middle finger of your left hand. There are two fingers to the left, and seven fingers to the right. That gives 27, which is the right answer. This works for all of the first ten multiples of nine.

(more information at http://www.multiplication.com/lesson10_nines_fingers.htm)

2. Tip for the 4's

You can work out a 4 times sum by doubling the two times table. 7×4 is the same as $7 \times 2 = 14$, then $14 \times 2 = 28$.

3. Tip for the 6's

You can work out a 6 times sum by doubling the three times table.

5×6 is the same as double 5×3

4. Tip for the 8's

Have a look at the 8 times table again. The unit digits have a regular pattern - they go down in 2s, it is also double the 4 times table.

Fun ideas

1. Mnemonics

With your child you could design fun mnemonics to help learn their times tables. Use phrases which sound like numbers if it helps.

For example, for:

8 = Eight

16 = Sticks mean

24 = Plenty more

32 = Dirty screws

40 = Naughty

48 = Thought I ate

56 = Pretty slip

64 = Sticky floor

72 = Heavenly shoes

80 = Achy

2. Songs

These mnemonics can then easily extend further into songs and rhymes.

For example

$1 \times 3 = 3$ the little boy climbed up the tree,

$2 \times 3 = 6$ the little boy snapped off some sticks,

$3 \times 3 = 9$ he climbed down the washing line, ...etc

By adding actions to the songs will aid memory even further.

3. Timing their tests

To test their times table knowledge there are many games that children can play. These can be as simple as writing out twenty mixed questions and timing them to see how quickly they can do it, giving them a target time for their next test.

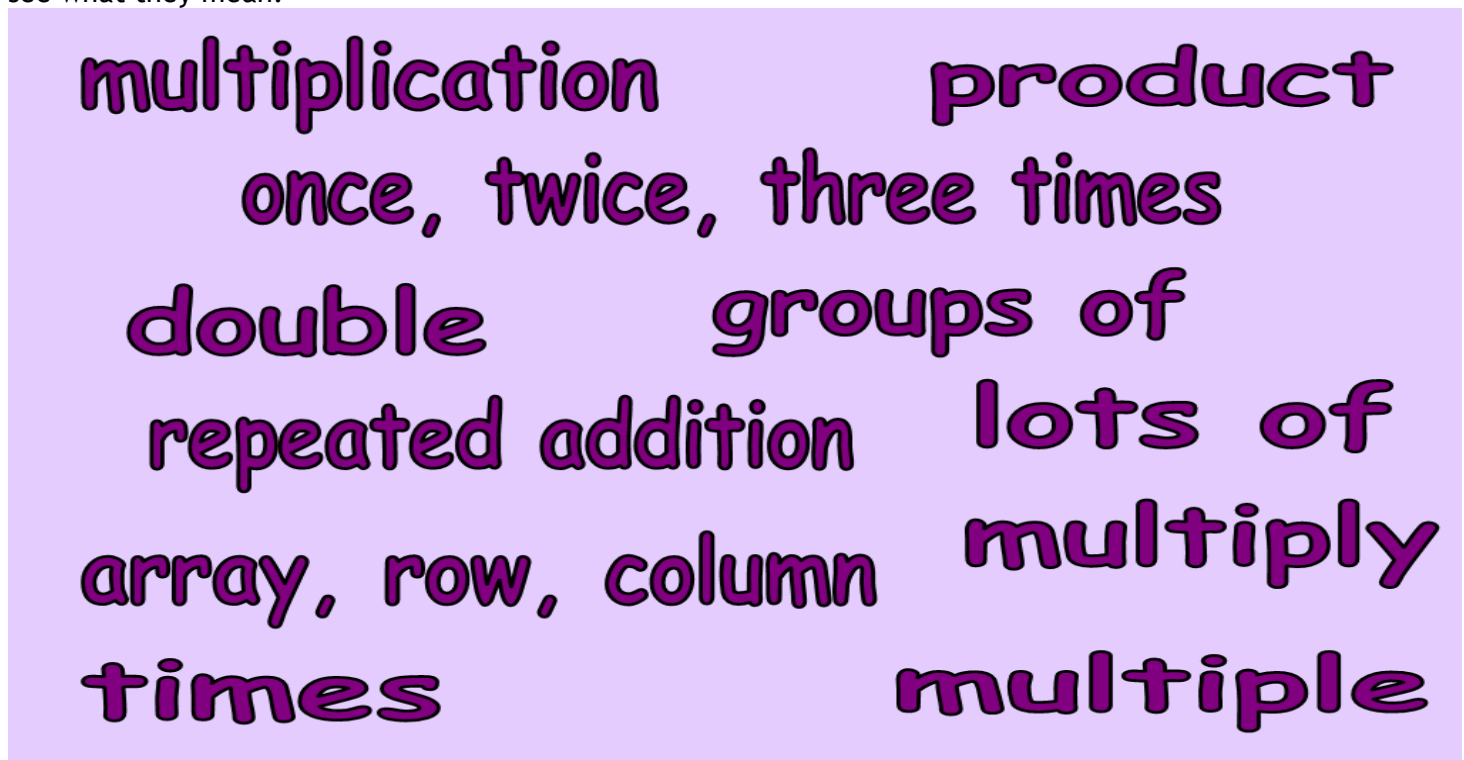
4. Bingo

Another fun way of testing your child is with a game of times table bingo. This can be done online at the link below;

Bingo Card: http://www.multiplication.com/cmptrgames/bingo_card.htm

Language

Here are some of the words which will crop up when doing multiplication questions. Have a look below to see what they mean.



Factors	One number is a factor of another number if it divides, or 'goes into' it exactly, with no
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	remainders. So, 5 is a factor of 20, but 5 is NOT a factor of 23 because if you tried to divide 23 by 5 you'd be left with a remainder of 3.
Groups of	4 groups of 2 are 8 $4 \times 2 = 8$
Lots of	2 lots of 5 are 10 $2 \times 5 = 10$
Multiple	Multiples are the numbers you find in any times table. The multiples of 7 are the numbers in the 7 times table, 7, 14, 21, 28 and so on.
Multiply	There are lots of ways of talking about multiplication. The sum $3 \times 4 = 12$ can be written as: <ul style="list-style-type: none"> • 3 times 4 = 12 • 3 multiplied by 4 = 12 • 3 lots of 4 are 12 • the product of 3 and 4 is 12 • 3 sets of 4 are 12 • three fours are twelve
Product	The product is the answer that you get when you multiply numbers together. The product of 5 and 4 is 20.
Sets of	3 sets of 3 are 9 or $3 \times 3 = 9$
Times	4 times 4 = 16 or $4 \times 4 = 16$

Websites: Fun Times table games:

<http://multiplication.com/flashgames/snowballfight.htm>

<http://multiplication.com/flashgames/HolidayPractice.htm>

<http://multiplication.com/flashgames/Moles.htm>

<http://multiplication.com/flashgames/ClassroomCapers.htm>

<http://multiplication.com/flashgames/KnightPrincess.htm>

<http://multiplication.com/flashgames/CarWash.htm>

<http://multiplication.com/flashgames/EggStaticDrop.htm>

http://www.mad4maths.com/3_x_multiplication_table_math_game/index.html

http://www.mad4maths.com/4_x_multiplication_table_math_game/index.html

http://www.mad4maths.com/5_x_multiplication_table_math_game/index.html

http://www.mad4maths.com/6_x_multiplication_table_math_game/index.html

http://www.mad4maths.com/8_x_multiplication_table_math_game/index.html

<http://www.bbc.co.uk/skillswise/numbers/wholenumbers/multiplication/timestables/game.shtml>

<http://www.bbc.co.uk/skillswise/numbers/wholenumbers/multiplication/timestables/quiz.shtml>

<http://www.oswego.org/ocsd-web/games/Mathmagician/mathsmulti.html>

<http://www.woodlands-junior.kent.sch.uk/maths/timestable/index.html>