Whitfield St. James' CE (VC) Primary and Nursery School

Parents' Guide to Times Tables

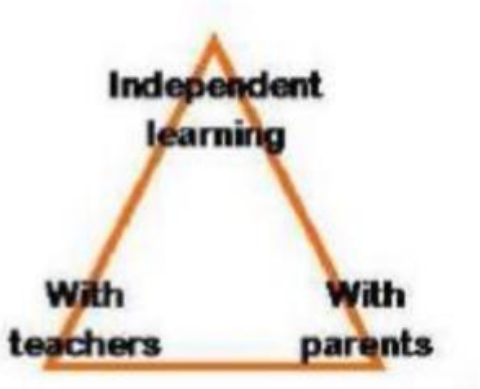
	1	2	3	4	5	6	7	8	9	10	11	12
1	1	2	3	4	5	6	7	8	9	10	11	12
2	2	4	6	8	10	12	14	16	18	20	22	24
3	3	6	9	12	15	18	21	24	27	30	33	36
4	4	8	12	16	20	24	28	32	36	40	44	48
5	5	10	15	20	25	30	35	40	45	50	55	60
6	6	12	18	24	30	36	42	48	54	60	66	72
7	7	14	21	28	35	42	49	56	63	70	77	84
8	8	16	24	32	40	48	56	64	72	80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

Help your child to achieve their best in Mathematics.

The importance of times table knowledge

- Knowing times tables facts is crucially important to your child's progression in their mathematics education.
- Without a deep understanding of multiplication and division facts, children frequently get 'lost' when they come to doing anything with fractions and any multiplication or division with larger numbers.
- Many mental maths activities and tests require a quick recall of multiplication and division facts.
- Children who are secure in their times tables knowledge are able to get to grips with trickier tasks straight away and are far more successful.
- 'Knowing' times tables means a child will be able to recall any of the multiples of a times table out of order within 3 seconds, as well as knowing the matching division facts i.e. 4 x 6 = 24 as well as 24 ÷ 6 = 4.
- **Learning multiplication facts and tables are most effective when there is collaboration with school, parents and children.** In school we regularly spend time learning times tables, but a child will be much more successful if they practise outside school independently and alongside parents.

A successful learner works collaboratively.



Times Tables Expectations for Your Child

Below are the times tables your child should know as a minimum by the end of each academic year. This is in line with national expectations.

Reception: When counting objects, children should be able to group in twos, fives and tens and record the total.

Year 1: Record sequences of twos, fives and tens (e.g. 2, 4 6, 8 etc.) and identify any missing multiples. Know off by heart the doubles and halves of numbers to 12. Draw and use arrays to solve multiplication problems.

By the end of Y2	By the end of Y3	By the end of Y4	By the end of Y5	By the end of Y6
2, 5, 10 including division facts.	2, 3, 4, 5, 8, 10 including division facts.	All times tables up to 12 x 12 with division facts.	As Year 4 and related questions e.g. 1/9 of 63 is 7. Knowledge of prime numbers to 19.	As Year 5 and a knowledge of prime numbers below 100. Identify common factors and multiples.

Key Vocabulary

Here are some words that may be used whilst learning and applying multiplication and division.

multiply	divide	once, twice, three times	lots of	repeated addition	times	double	halve	Square number
prime	product	factors	array (row and column)	repeated subtraction	multiple	sets of	Remainder	

Here are some of the trickier words defined:

Factor – One number is a factor of another if it divides or 'goes into' it exactly (without any left over, a remainder). E.g. 6 is a factor of 30 because it goes into it 5 times, but is not a factor of 33 because after dividing there is a remainder of 3.

Groups of/ lots of/ sets of – 3 groups of 5 are 15, 3 lots of 5 are 15, 3 sets of 5 are 15 (3 x 5 = 15).

Multiple - These are the numbers that you find in a times table. E.g. 20 is a multiple of 5, 4, 2 and 10 because it is found in all of those times tables. The multiples of 5 are 5, 10, 15, 20 etc.

Product - A product is the answer you get when you multiply two or more numbers together. E.g. the product of 3 and 4 is 12 (3 x 4 = 12).

Prime – A prime number will only divide equally between 1 and itself e.g. 7, 11. The first ten prime numbers are: 2,3,5,7,11,13,17,19,23,29.

Array – As shown, an array is a visual representation of multiplication. Shown are 3 rows of 5 with 15 in total.

Square number - A whole number multiplied by itself, for example: 4 × 4 = 16, so 16 is a square number.

Regular revision

The key to learning times tables is frequent repetition, regular revision. 5 to 10 minutes every day is better than an hour a week. A poster on the wall that is not used as simply wall paper. Here are some ideas to help your child memorise their multiplication and division facts.

1) Chanting – Have your child chant out loud the times tables. This could be the whole number sentence '2 times 3 equals 6, 2 times 4 equals 8…' or it could be just the number sequence '2, 4, 6, 8 ...'. Have fun with it! See if they can do it in different voices like a robot, like a parrot or a silly voice. Can they shout it out loud, can they whisper it?

2) Flash cards - Create flash cards to help your child. You could select certain facts they keep getting stuck on, rather than the whole set.

3) Timed – Time your child and make it into a competition. Can they beat their last score? Put the timer on for 30 seconds and see how many they can answer. https://www.online-stopwatch.com/

4) Bingo - Write the multiplication questions on separate pieces of paper and place in a bowl. Make a 4 by 3 square bingo card each and write 9 of the answer numbers onto it. Take it in turns to draw a question out – if the answer's on your card, cross it off. The winner is the first to cross off all their answers.

5) Using a multiplication square –

	1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	**1**	2	3	4	5	6	7	8	9	10	11	12
2	2	**4**	6	8	10	12	14	16	18	20	22	24
3	3	6	**9**	12	15	18	21	24	27	30	33	36
4	4	8	12	**16**	20	24	28	32	36	40	44	48
5	5	10	15	20	**25**	30	35	40	45	50	55	60
6	6	12	18	24	30	**36**	42	48	54	60	66	72
7	7	14	21	28	35	42	**49**	56	63	70	77	84
8	8	16	24	32	40	48	56	**64**	72	80	88	96
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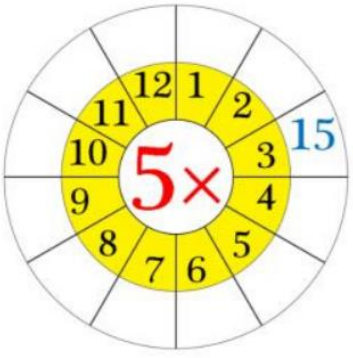
Notice the diagonally shaded numbers. These are square numbers. The answer to a whole number multiplied by itself is a square number. 1 x 1 = 1, 2 x 2 = 4, 3 x 3 = 9, 4 x 4 = 16, 5 x 5 = 25, 6 x 6 = 36, 7 x 7 = 49, 8 x 8 = 64, 9 x 9 = 81, 10 x 10 = 100, 11 x 11 = 121, 12 x 12 = 144.

6) Number wheel - Create a number wheel like the one below and see how quickly they can fill it in. To make it a fun challenge, mix up the numbers 1-12 in yellow.



7) Rhymes - Use rhymes to aid the memory. I ate and ate 'til I was sick on the floor: 8 times 8 is 64! Wakey, wakey, rise and shine: seven 7s are 49! 5,6,7,8: 56 is seven eights!

8) Online resources –

https://www.edshed.com/en-gb/

https://www.topmarks.co.uk/maths-games/7-11-years/times-tables

https://tablestest.com/

https://www.transum.org/Tables/Times_Tables.asp
https://www.coolmathgames.com/1-number-games

https://play.ttrockstars.com/auth/school/student/32468

9) Quick questions anywhere - Fire questions at your children anywhere and everywhere! Take them by surprise and see how quickly they can respond.

10) Dominoes - Put a set of dominoes face down on the table, all players pick one up and multiply the spots on each side together. The person with the highest answer keeps the dominoes. Repeat until all have been used. The person with the most dominoes at the end of the game wins. This game can also be played with a pack of playing cards.

11) Play beat the calculator (a game for 2 people). Roll a dice twice. One person multiplies the numbers together, while the other person works out the answer on a calculator. The person who says the answer first wins. Keep swopping roles. This game can also be played with a pack of playing cards.

Top Times Table Hints

It may seem a daunting task to learn so many multiplication facts, but because of the commutative property of multiplication, there are fewer facts than you may think. For example, 3 x 4 and 4 x 3 give the same answer, so you need to only learn this once.

Zero Times Table - Anything multiplied by zero will always equal zero. Multiplication is repeated addition so 3 x 0 is 0 + 0 + 0, which equals 0.

One Times table - Any number multiplied by one is itself.

Two Times Table - Any number multiplied by two is double the number. 7 x 2 = 14, 7 + 7 = 14, double 7 is 14

Three Times Table - Digits within this times table add up to multiples of 3. For example: 3, 6, 9, 12 (1+2=3), 15 (1+5=6), 18 (1+8=9) 21 (2+1=3), 24 (2+4=6) etc. The numbers also follow the pattern of: odd, even, odd, even (3,6,9,12).

Four Times Table - The four times table is double the two times table. 4 x 2 = 8, 4 x 4 = 16, 16 is double 8. Alternatively the fours can be thought of as double double. So double 3 (6) and double again (12) is the same as 3 x 4 = 12.

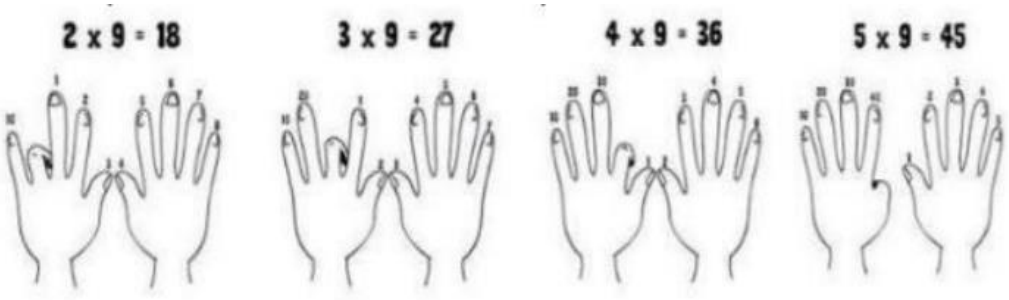
Five Times Table - All multiples of 5 end in five or zero. For even numbers (e.g. 8 x 5) you can halve the number (4) and then put a zero after it (40). For odd numbers (e.g. 7 x 5) you can subtract one from the number (6), halve it (3) and then put a 5 after it (35). Any odd number times 5 ends in a 5. Any even number times 5 ends in 0.

Six Times Table - The six times table is double the three times table. So 5 x 3 = 15, 5 x 6 = 30, 30 is double 15.

Seven Times Table - Combine the 5 and the 2 times table: 7 x 4 = 28 or (5x4) + (2x4) = 28

Eight Times Table - The eight times table is double the four times table. So 7 x 4 = 28, 7 x 8 = 56, 56 is double 28. The units in the multiples of eight also go down in twos. 8, 16, 24, 32, 40, 48, 56, 64, 72, 80 (8, 6, 4, 2, 0, 8, 6, 4, 2, 0).

Nine Times Tables - Fingers can be used to work out the nine times table up to 10 x 9. The first finger is put down for 1 x 9 and the remaining fingers show 9 units (1 x 9 =9). Then the second finer is put down for 2 x 9 and the remaining fingers show 1 ten (to the left) and 8 units (to the right) which equals 18, and so on. For example:



The digits found in the multiples of nine when added together also equal nine. For example: 9 = 9, 18 (1 + 8) = 9, 27 (2 + 7) = 9, 36 (3 + 6) = 9, 45 (4 + 5) = 9 etc.

Ten Times Table - All the digits in the ten times table end in zero.

Eleven Times Table - Most of the multiples in the eleven times table are recalled by putting two of the number side by side. 7 x 11 = 77, 8 x 11 =88.

Twelve Times Table - The units in the twelve times table go up in twos. 12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144 (2, 4, 6, 8, 0, 2, 4, 6, 8, 0). The multiples of 12 are also the multiples of 10 and the multiples of 2 combined.