



Owlsmoor Primary School

**Parent Guide
to
Times Tables**

The Importance of Times Tables Knowledge

Maths is all around us and as adults, we use it in our everyday lives. Knowing their times tables will set children up to a good start in life.

Children are expected to know all the times tables up to 12×12 by the age of nine, (Year 4). 'Knowing' their times tables means that the children will be able to recall any of the multiples of a times table out of order within a few seconds.

Knowing times tables facts is crucially important to children's progress in their education. If children are secure in their knowledge of multiplication and division facts, they will find it easier to work with fractions and do multiplication and division with larger numbers. Children can use their knowledge of multiplication to work out the corresponding division facts i.e. $5 \times 9 = 45$ as well as $45 \div 9 = 5$.

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. In year 4, children will complete a statutory multiplication timed test which will take place in June online.

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.

In this booklet, you will find out how to help your child to learn their times tables. You will find some tips, tricks and activities that can help your child to develop a rapid recall of the multiplication facts (times tables).

Times Tables Vocabulary

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

**Multiply, divide, double
product, lots of, repeated addition,
times factors, array, row, column,
repeated subtraction, multiples,
sets of, halve, prime**

Here are some of the trickier words defined:

A **factor** is a number that divides exactly into a whole number without a remainder. Eg, 1, 2, 3, 4, 6 and 12 are all factors of 12 because they divide into 12 exactly.

When you **multiply a number by itself**, the result is a **square number**:

$$1 \times 1 = 1$$

$$7 \times 7 = 49$$

$$2 \times 2 = 4$$

$$8 \times 8 = 64$$

$$3 \times 3 = 9$$

$$9 \times 9 = 81 \text{ and so on.}$$

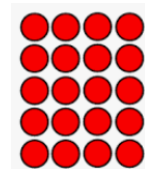
Groups of/ lots of/ sets of – 3 groups of 5 are 15, 3 lots of 5 are 15, 3 sets of 5 are 15 ($3 \times 5 = 15$).

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 ($3 \times 4 = 12$).

Prime – A prime number will only divide equally by 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 5 rows of 4 with 20 in total.



Learning Times Tables

The best way to learn times tables is to practise frequently; this could be for as little as 5 to 10 minutes a day. Here are some ideas to help your child memorise their multiplication and division facts.

1. Reciting Tables

Encourage daily counting in multiples both forward and backwards to help them stick in the mind. This could be done on the way to school in the car, as you walk to school, while getting changed and whenever you have a few minutes.

Write them out and read them out aloud. Repeatedly reading a times table out aloud will help your child become familiar with the multiples for that times table. You could change the vocabulary regularly for example, two times three is six, two threes are six, two lots of three are six and so on.

Children find that reading and hearing themselves say a table regularly helps them to learn it.

2. Flash Cards

Children enjoy making and using cards. Make a set of cards for the times table being learnt by putting a question on one side of the card ($6 \times 4 =$) and the answer on the reverse (24). Go through the cards reading the question and then turning over to see the answer. Try and say the answer before you turn over. When familiar with the multiplication table, the cards can then be shuffled and used in a random order and it can be made into a fun game.

Being able to recall something without looking at it is an important step to getting it lodged in our memory.

3. Testing and Timing

Make this fun. When your child has become more confident at learning a particular times table, ask them questions on it and see how many they can get correct in a particular time.

Alternatively, you could write some questions out of order and get them to time how long it takes to complete the questions. There are many free sheets online. Can they beat their time and score?

4. Rhymes and Songs

Children love these. Silly rhymes and songs can help children to remember these patterns,

e.g. '0 2 4 6 8, my mum thinks I'm great'

I ate and I ate until I was sick on the floor, $8 \times 8 = 64$

Wake up wake up rise and shine, seven sevens are forty nine.

Learning Times Tables

5. Using a Multiplication Square

A multiplication square is particularly useful for establishing the link between multiplication and division facts but can also be used instead of a times table list. When children are more confident with their times table knowledge, a blank multiplication square can be filled in. Time your child to complete their square, or see how many multiples they can complete in a set time. Can they beat their score and time? (see school website for complete and blank multiplication squares).

6. Times Tables Games

Bingo is a great way of learning times tables as a family. Write 6 multiples from a particular times table down in a grid and the caller reads out questions from the same multiplication table.

Rolling dice and multiplying the numbers together is a good way to compete with each other to get the correct answer first. Two dice can be rolled at once to create all questions up to 12×12 . A similar game can be created with playing cards where two cards are chosen and their values multiplied together. The Jack, Queen and King need to be 11, 12 and 0.

To help with division, each player chooses and writes down five of the following numbers: 5, 6, 8, 9, 12, 15, 20, 30, 40 and 50. Take it in turns to roll a dice and if the number you roll is a factor of one of your numbers, cross it out. E.g. if a 4 is rolled it goes into 8 so cross out 8. If 1 is rolled, you miss a go; if 6 is rolled you get an extra turn. The winner crosses all of their numbers out first.

Here are just a few games. If you create any of your own or find some really good ones, please let us know!

7. Quick Questions Anywhere!

A few questions here and there are much better than hundreds in one go.

- on the way to school
- in advert breaks
- whilst getting dressed
- a few before bed

Learning Times Tables

8. Online Resources

There are many games and resources that can be used online for consolidating times table knowledge and for increasing the speed of recall. Here are some useful sites.

Times tables Rock Stars.

<https://ttrockstars.com/>

Your child will have a log in and password for Times Tables Rock stars. There are areas for children to practise the times tables that they have been set by their teacher. Once the children feel confident they can also have a go at the timed test.

<https://mathsframe.co.uk/en/resources/resource/477/Multiplication-Tables-Check>

A practise test

Game – Guardians: Defenders of Mathematica

<https://www.bbc.co.uk/bitesize/topics/zd2f7nb/articles/zn2y7nb>

Hit the Button

<https://www.topmarks.co.uk/maths-games/hit-the-button>

Times tables test

www.tablestest.com

Times tables

<https://www.timestables.co.uk/>

Top Marks

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

Super movers

<https://www.bbc.co.uk/teach/supermovers/ks2-maths-the-6-times-table-with-fred-the-red/zrq3xyc>

Remember to always supervise your child while they are online.

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. Commutative means it can be done in either order - for example, 3×4 and 4×3 give the same answer so you need to only learn this once. All tables have patterns in their numbers. Some of these are easy to spot and some are harder. Finding and highlighting the pattern in a table can help your child to learn it. Children are introduced to the 2, 5 and 10 times tables first because they all have clear patterns. All tables have patterns.

Zero Times Table

Anything multiplied by zero will always equal zero. Multiplication is repeated addition so 3×0 is $0 + 0 + 0$, which equals 0.

One Times table

Any number multiplied by one is itself. So, $7 \times 1 = 7$

Two Times Table

Multiplying by 2 is the same as doubling the number so $5 \times 2 = 10$, Double 10 = 20 Count in multiples of 2. Pattern is 0, 2, 4, 6, 8 is repeated. Answers are all even numbers.

$$\begin{array}{l} 2 \times 1 = 2 \\ 2 \times 2 = 4 \\ 2 \times 3 = 6 \\ 2 \times 4 = 8 \\ 2 \times 5 = 10 \\ 2 \times 6 = 12 \\ 2 \times 7 = 14 \\ 2 \times 8 = 16 \\ 2 \times 9 = 18 \\ 2 \times 10 = 20 \\ 2 \times 11 = 22 \\ 2 \times 12 = 24 \end{array}$$

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).

$$\begin{array}{l} 3 \times 1 = 3 \\ 3 \times 2 = 6 \\ 3 \times 3 = 9 \\ 3 \times 4 = 12 \\ 3 \times 5 = 15 \\ 3 \times 6 = 18 \\ 3 \times 7 = 21 \\ 3 \times 8 = 24 \\ 3 \times 9 = 27 \\ 3 \times 10 = 30 \\ 3 \times 11 = 33 \\ 3 \times 12 = 36 \end{array}$$

Four Times Table

The four times table is double the two times table.

$4 \times 2 = 8$, $4 \times 4 = 16$, 16 is double 8.

Encourage your child to try doubling and then doubling again if they are struggling to work out $4 \times$ something.

All answers are even.

$$4 \times 1 = 4$$

$$4 \times 2 = 8$$

$$4 \times 3 = 12$$

$$4 \times 4 = 16$$

$$4 \times 5 = 20$$

$$4 \times 6 = 24$$

$$4 \times 7 = 28$$

$$4 \times 8 = 32$$

$$4 \times 9 = 36$$

$$4 \times 10 = 40$$

$$4 \times 11 = 44$$

$$4 \times 12 = 48$$

Five Times Table

All multiples of 5 end in five or zero. For even numbers (e.g. 8×5) you can halve the number (4) and then put a zero after it (40). For odd numbers (e.g. 7×5) 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.

$$5 \times 1 = 5$$

$$5 \times 2 = 10$$

$$5 \times 3 = 15$$

$$5 \times 4 = 20$$

$$5 \times 5 = 25$$

$$5 \times 6 = 30$$

$$5 \times 7 = 35$$

$$5 \times 8 = 40$$

$$5 \times 9 = 45$$

$$5 \times 10 = 50$$

$$5 \times 11 = 55$$

$$5 \times 12 = 60$$

Six Times Table

The six times table is double the three times table.

So $5 \times 3 = 15$, $5 \times 6 = 30$, 30 is double 15.

All the answers are even.

$$6 \times 1 = 6$$

$$6 \times 2 = 12$$

$$6 \times 3 = 18$$

$$6 \times 4 = 24$$

$$6 \times 5 = 30$$

$$6 \times 6 = 36$$

$$6 \times 7 = 42$$

$$6 \times 8 = 48$$

$$6 \times 9 = 54$$

$$6 \times 10 = 60$$

$$6 \times 11 = 66$$

$$6 \times 12 = 72$$

Seven Times Table

Combine the 5 and the 2 times table:

$$7 \times 4 = 28 \text{ or } (5 \times 4) + (2 \times 4) = 28$$

$$7 \times 1 = 7$$

$$7 \times 2 = 14$$

$$7 \times 3 = 21$$

$$7 \times 4 = 28$$

$$7 \times 5 = 35$$

$$7 \times 6 = 42$$

$$7 \times 7 = 49$$

$$7 \times 8 = 56$$

$$7 \times 9 = 63$$

$$7 \times 10 = 70$$

$$7 \times 11 = 77$$

$$7 \times 12 = 84$$

Eight Times Table

The eight times table is double the four times table.

So $7 \times 4 = 28$, $7 \times 8 = 56$, 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). All answers are even.

$$8 \times 1 = 8$$

$$8 \times 2 = 16$$

$$8 \times 3 = 24$$

$$8 \times 4 = 32$$

$$8 \times 5 = 40$$

$$8 \times 6 = 48$$

$$8 \times 7 = 56$$

$$8 \times 8 = 64$$

$$8 \times 9 = 72$$

$$8 \times 10 = 80$$

$$8 \times 11 = 88$$

$$8 \times 12 = 96$$

Ten times tables

All the digits in the ten times tables end in 0. The digits which are being multiplied move one column to the left, to make them ten times bigger – this makes it look like a zero is being added at the end.

$$10 \times 1 = 10$$

$$10 \times 2 = 20$$

$$10 \times 3 = 30$$

$$10 \times 4 = 40$$

$$10 \times 5 = 50$$

$$10 \times 6 = 60$$

$$10 \times 7 = 70$$

$$10 \times 8 = 80$$

$$10 \times 9 = 90$$

$$10 \times 10 = 100$$

$$10 \times 11 = 110$$

$$10 \times 12 = 120$$

Eleven Times Table

There is a clear and easy pattern in the 11 times tables. The number being multiplied by 11 is repeated. For example 3×11 is 3 and 3 again (33).

8×11 is 8 and 8 again (88) This pattern works up until 9×11 .

11	x	1	=	11
11	x	2	=	22
11	x	3	=	33
11	x	4	=	44
11	x	5	=	55
11	x	6	=	66
11	x	7	=	77
11	x	8	=	88
11	x	9	=	99
11	x	10	=	110
11	x	11	=	121
11	x	12	=	132

Twelve Times Table

If you've learnt all the other times tables then there actually should only be one thing to learn by this stage: $12 \times 12 = 144$.

Tip - the units in the 12 times tables go up in twos.

Children can solve 12x table questions by partitioning (splitting) the 12 into 10 and 2, and using their 10x and 2x table knowledge – e.g. solving 12×7 by doing $10 \times 7 = 70$ and $2 \times 7 = 14$ and putting them together $70 + 14 = 84$.

12	x	1	=	12
12	x	2	=	24
12	x	3	=	36
12	x	4	=	48
12	x	5	=	60
12	x	6	=	72
12	x	7	=	84
12	x	8	=	96
12	x	9	=	108
12	x	10	=	120
12	x	11	=	132
12	x	12	=	144

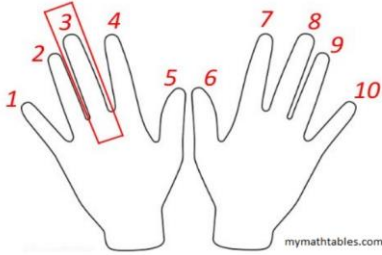
Nine Times Table

All of the digits in a multiple of 9 add up to 9 (e.g. $18 = 1+8=9$). This even works for really high multiples of 9, but you need to keep going until there is only one digit: $9 \times 4 = 36$ ($3 + 6 = 9$).

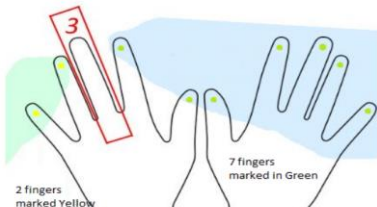
The finger trick

Step 1: Hold both your hands up with palms facing you. Number the fingers from left to right as one to ten.

Now hold down the finger of the number you want to multiply by 9. Here in this example, we are going to multiply by 3, so the 3rd finger is held down.



STEP 3: The fingers to the left as the tens and the fingers to the right are units.



In this example, two to the left and there are seven fingers to the right which makes 27 so, the result is $= 3 \times 9 = 27$

$$9 \times 1 = 9$$

$$9 \times 2 = 18$$

$$9 \times 3 = 27$$

$$9 \times 4 = 36$$

$$9 \times 5 = 45$$

$$9 \times 6 = 54$$

$$9 \times 7 = 63$$

$$9 \times 8 = 72$$

$$9 \times 9 = 81$$

$$9 \times 10 = 90$$

$$9 \times 11 = 99$$

$$9 \times 12 = 108$$

Times Tables Cards

$1 \times 2 = 2$

$2 \times 2 = 4$

$3 \times 2 = 6$

$4 \times 2 = 8$

$5 \times 2 = 10$

$6 \times 2 = 12$

$7 \times 2 = 14$

$8 \times 2 = 16$

$9 \times 2 = 18$

$10 \times 2 = 20$

$11 \times 2 = 22$

$12 \times 2 = 24$

Instructions: Cut round the outside of each card then fold on the dotted line. Glue the two halves together. Now you can test yourself! Shuffle the cards and put them in a pile. For each card, say what's on the other side (e.g. if you have '8', you need to say how many 2s are in 8, if you have '3 × 2' you need to say the answer). Turn the card over to check your answer. If you get one wrong, put it in a separate pile and try the tricky ones again at the end.

$1 \times 6 = 6$

$5 \times 6 = 30$

$2 \times 6 = 12$

$6 \times 6 = 36$

$3 \times 6 = 18$

$7 \times 6 = 42$

$4 \times 6 = 24$

$8 \times 6 = 48$

$9 \times 6 = 54$

$10 \times 6 = 60$

$11 \times 6 = 66$

$12 \times 6 = 72$

Cut round the outside of each card then fold on the dotted line. Glue the two halves together. Now you can test yourself! Shuffle the cards and put them in a pile. For each card, say what's on the other side (e.g. if you have '8', you need to say how many 2s are in 8, if you have ' 3×2 ' you need to say the answer). Turn the card over to check your answer. If you get one wrong, put it in a separate pile and try the tricky ones again at the end.

Cards can be made with any of the times tables.

Multiplication Square

A multiplication number square, useful to allow children to learn multiplication, square numbers and recurring patterns.

×	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