



Times tables

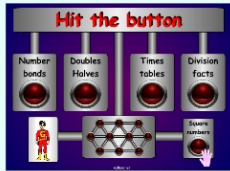
Parents Guide to Times Tables

x	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10
2	0	2	4	6	8	10	12	14	16	18	20
3	0	3	6	9	12	15	18	21	24	27	30
4	0	4	8	12	16	20	24	28	32	36	40
5	0	5	10	15	20	25	30	35	40	45	50
6	0	6	12	18	24	30	36	42	48	54	60
7	0	7	14	21	28	35	42	49	56	63	70
8	0	8	16	24	32	40	48	56	64	72	80
9	0	9	18	27	36	45	54	63	72	81	90
10	0	10	20	30	40	50	60	70	80	90	100

10	0	10	20	30	40	50	60	70	80	90	100
9	0	9	18	27	36	45	54	63	72	81	90
8	0	8	16	24	32	40	48	56	64	72	80
7	0	7	14	21	28	35	42	49	56	63	70
6	0	6	12	18	24	30	36	42	48	54	60
5	0	5	10	15	20	25	30	35	40	45	50
4	0	4	8	12	16	20	24	28	32	36	40
3	0	3	6	9	12	15	18	21	24	27	30
2	0	2	4	6	8	10	12	14	16	18	20
1	0	1	2	3	4	5	6	7	8	9	10
0	0	0	0	0	0	0	0	0	0	0	0



Hit the button



Multiple wipe out



Fireworks



Speed challenge



- <http://www.primaryhomeworkhelp.co.uk/maths/timestable/>
- <http://www.crickweb.co.uk/ks2numeracy-multiplication.html>
- <http://www.multiplication.com/games/all-games>
- <https://www.topmarks.co.uk/maths-games/5-7-years/times-tables>
- <https://www.topmarks.co.uk/maths-games/7-11-years/times-tables>
- <https://trockstars.com/login>
- <https://www.timestables.co.uk/games/>

Times tables

Parents Guide to Times Tables

Dear Parents / Carers

As part of our drive to increase fluency with times tables we have produced this leaflet to help you support your children at home.

Inside this booklet there is information about the order and the way we teach times tables in school as well as a range of ideas / games and online resources for you to access to help support your child at home.

We would also like to take this opportunity to reintroduce:

Times
Rock
fun



Tables
Stars is a
online

programme designed to encourage children to practice their times tables regularly by completing tasks and earning coins which they can then use to buy objects for their own avatar. Children can compete against themselves; other children in the school or against the clock to improve their fluency and increase the number of questions they can answer in a limited time.

You can access Times Tables Rock Stars through:

<https://trockstars.com/login>

Or download the free app on any tablet or mobile device.

Your child's User Name:

Password :

1x5	55	2x5	40
3x5	35	4x5	5
5x5	45	6x5	60
7x5	25	8x5	15
9x5	50	10x5	30
11x5	20	12x5	10

Matching games

Using a template like this; create your own cards and play pairs .

Match the question to the answer!

Person with the most pairs wins.

You could make this extra tricky by including the division facts too.

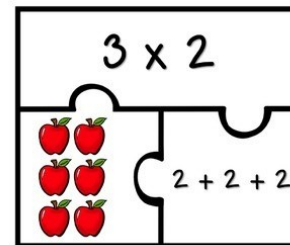
Repeated Addition

Repeated addition helps us to understand multiplication.

For example : 3×4

Can also be shown as $4 + 4 + 4$

We can also show this as an array. Using the arrays help us to understand grouping and sharing too.



$$5 + 5 + 5 + 5 + 5 + 5$$



6 lots of 5

5 six times



Look at all the different ways I can show the same calculation!

5×6

Patterns on a hundred square

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

What is the times table?

Which numbers are missing?

Use a 100 square to identify all the multiples in your focus times table.

- Look for patterns
- work out the rule.
- Find missing times table numbers

<http://www.primarygames.co.uk/pg2/splat/splatsq100.html>

Times tables progression by term

		Overview map to learn times table facts											
		Autumn				Spring				Summer			
		10 x			5 x			2 x					
Year 2		10 x 1 = 10	10 x 5 = 50	10 x 10 = 100	5 x 1 = 5	5 x 5 = 25	5 x 10 = 50	2 x 1 = 2	2 x 5 = 10	2 x 10 = 20			
		10 x 2 = 20	10 x 4 = 40	10 x 8 = 80	5 x 2 = 10	5 x 4 = 20	5 x 8 = 40	2 x 2 = 4	2 x 4 = 8	2 x 8 = 16			
		10 x 3 = 30	10 x 6 = 60		5 x 3 = 15	5 x 6 = 30		2 x 3 = 6	2 x 6 = 12				
		10 x 7 = 70	10 x 9 = 90		5 x 7 = 35	5 x 9 = 45		2 x 7 = 14	2 x 9 = 18				
	10 x 11 = 110	10 x 12 = 120		5 x 11 = 55	5 x 12 = 60		2 x 11 = 22	2 x 12 = 24					
Year 3		3 x			4 x			8 x					
		3 x 1 = 3	3 x 5 = 15	3 x 10 = 30	4 x 1 = 4	4 x 5 = 20	4 x 10 = 40	8 x 1 = 8	8 x 5 = 40	8 x 10 = 80			
		3 x 2 = 6	3 x 4 = 12	3 x 8 = 24	4 x 2 = 8	4 x 4 = 16	4 x 8 = 32	8 x 2 = 16	8 x 4 = 32	8 x 8 = 64			
		3 x 3 = 9	3 x 6 = 18		4 x 3 = 12	4 x 6 = 24		8 x 3 = 24	8 x 6 = 48				
	3 x 7 = 21	3 x 9 = 27		4 x 7 = 28	4 x 9 = 36		8 x 7 = 56	8 x 9 = 72					
	3 x 11 = 33	3 x 12 = 36		4 x 11 = 44	4 x 12 = 48		8 x 11 = 88	8 x 12 = 96					
Year 4		6 x			7 x			9 x			11 x		
		6 x 1 = 6	6 x 0 = 0		7 x 1 = 7	7 x 0 = 0	9 x 0 = 0	11 x 1 = 11	11 x 0 = 0	12 x 1 = 12	12 x 0 = 0		
		6 x 5 = 30	6 x 10 = 60		7 x 7 = 49	9 x 9 = 81		11 x 12 = 132					
		6 x 2 = 12	6 x 4 = 24	6 x 8 = 48	7 x 8 = 56	7 x 9 = 63		11 x 11 = 121					
	6 x 3 = 18	6 x 6 = 36	6 x 12 = 72	7 x 11 = 77	9 x 11 = 99		12 x 12 = 144	12 x 6 = 72	12 x 3 = 36				
	6 x 7 = 42	6 x 9 = 54		7 x 3 = 21	7 x 6 = 42	7 x 12 = 84	12 x 8 = 96	12 x 4 = 48	12 x 2 = 24				
	6 x 11 = 66			9 x 3 = 27	9 x 6 = 54	9 x 12 = 108	12 x 9 = 108	12 x 7 = 84					
Year 5		x tenths			x tenths and squares numbers			x tenths and squares numbers					
		3 x 0.1 = 0.3	6 x 0.1 = 0.6		4 x 0.1 = 0.4	8 x 0.1 = 0.8	2 ² is 4	9 x 0.1 = 0.9	7 x 0.4 = 2.8	8 ² is 64			
		3 x 0.4 = 1.2	6 x 0.4 = 2.4		4 x 0.4 = 1.6	8 x 0.4 = 3.2	3 ² is 9	9 x 0.4 = 3.2	7 x 0.6 = 4.2	4 ² is 16			
		3 x 0.7 = 2.1	6 x 0.7 = 4.2		4 x 0.6 = 2.4	8 x 0.6 = 4.8	4 ² is 16	9 x 0.6 = 5.4	7 x 0.7 = 4.9	10 ² is 100			
	3 x 0.8 = 2.4	6 x 0.8 = 4.8		4 x 0.7 = 2.8	8 x 0.7 = 5.6	5 ² is 25	9 x 0.7 = 6.3	7 x 0.8 = 5.6	11 ² is 121				
	3 x 0.9 = 1.8	6 x 0.9 = 5.4		4 x 0.8 = 3.2	8 x 0.8 = 6.4	6 ² is 36	9 x 0.9 = 8.1	7 x 0.9 = 6.3	12 ² is 144				
	3 x 1.1 = 3.4	6 x 1.1 = 6.6		4 x 0.9 = 3.6	8 x 0.9 = 7.2	7 ² is 49	9 x 0.9 = 8.1	7 x 1.1 = 7.7					
	3 x 1.2 = 4.2	6 x 1.2 = 7.2		4 x 1.1 = 4.4	8 x 1.1 = 8.8		9 x 1.1 = 9.9	7 x 1.2 = 8.4					
				4 x 1.2 = 4.8	8 x 1.2 = 9.6		9 x 1.2 = 10.8						
Year 6 - x hundredths													

By the time children reach the end of Year 4, the government suggest they should be fluent in all times tables facts up to 12 x 12.

Above is a table showing the order we teach times tables facts in school. From Reception and Year 1 children learn to counting fluently forwards and backwards in steps of 1 and 2, then moving on to steps of 2, 5 and 10.

Counting in steps is one of the building blocks for learning our times tables. This is done through counting cubes, using pictures and number lines and chanting.

As the children progress in to Year 2 the expectation is that they are able to apply counting in steps to rapid recall of times tables facts for the 2, 5 and 10 times tables.

In Year 3 the children are taught the 3, 4 and 8 times tables often using their knowledge of the other times tables facts to support their new learning.

In Year 4 children are taught the 6, 7, 9, 11 and 12 times tables; again using their knowledge of other times tables facts to help them.

In Year 5 and 6, the focus is on using their times tables knowledge to find associated facts and apply these facts to a range of problem solving.

Common rules and tips for each times table

2x tables - tips

If a number ends in **0, 2, 4, 6, or 8** it is **even**. A number is even when it can be divided by **two** without a remainder.

2 divided by 2 is 1.

10 divided by 2 is 5.

All even numbers can be divided by 2.

To find out if a number is in the 2 times table, look at the digit at the end. 1 357 318 is a multiple of 2 because the digit at the end is 8, which is even.

Multiplying a number by 2 is the same as **DOUBLING** it.

Double 6 is the same as 6×2 , which equals 12.

Dividing a number by 2 is the same as **HALVING** it.

Half of 10 is the same as $10 \div 2$ which equals 5.

3x table - tips

To find out if a number is in the 3 times table, there is a very clever trick. Add up the digits of the number you want to find out about. If they **add up to 3, 6, or 9**, then you know that it's in the 3 times table.

Let's look at **15**.

The digits are 1 and 5.

Add those together and you get 6.

$1 + 5 = 6$.

So 15 is in the 3 times table.

Now let's look at a bigger number, **156**.

The digits are 1, 5 and 6.

Add $1 + 5 + 6$ and you get 12.

Now add up the digits 1 and 2 and you get 3.

So 156 is in the 3 times table.

It always works, even with a really big number like **12 346 911**.

Just add up the digits:

$1 + 2 + 3 + 4 + 6 + 9 + 1 + 1 = 27$.

Then add $2 + 7 = 9$.

So 12 346 911 is in the 3 times table.

Commutative law

The order of two numbers in a multiplication calculation makes no difference to the answer.

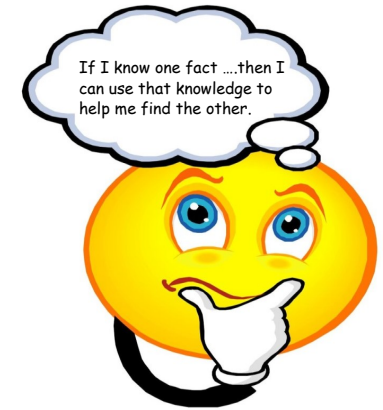
For example:

$$6 \times 7 = 42$$

$$7 \times 6 = 42$$

WARNING!

This rule does not work for division facts!



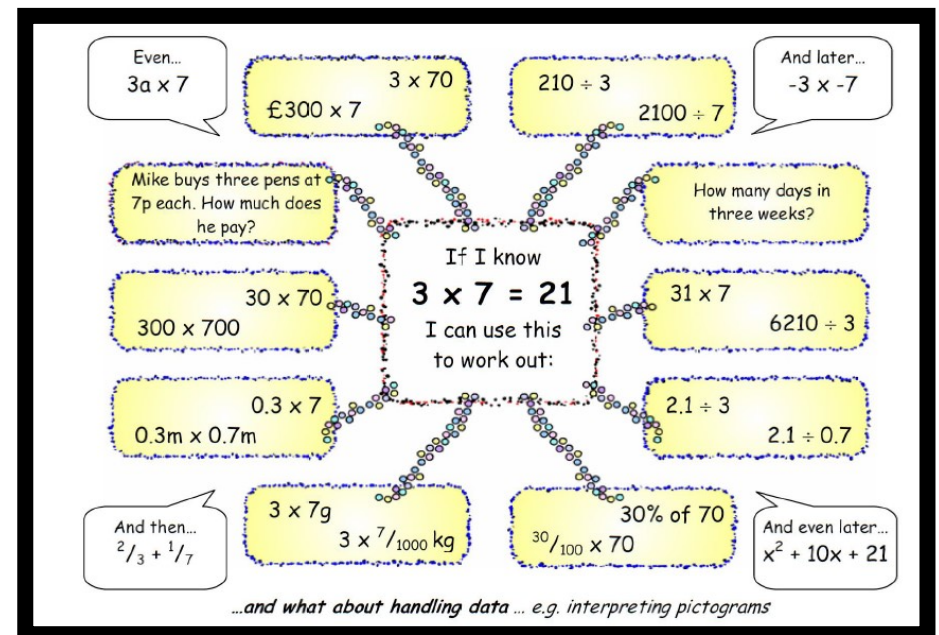
Associated facts

We can apply our times tables facts to calculate some really tricky problems!

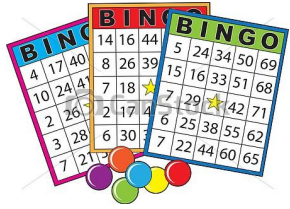
For example: if I know that $3 \times 7 = 21$

I can use this to work out $30 \times 7 = 210$.

30 is 10 times bigger than 3 so my answer needs to be 10 times bigger too!



Games and activities



Play BINGO!

A fun game to play as a family. You can easily make BINGO cards which have only the multiples of the times tables you are focusing on eg if you were focusing on the 4 times tables use only multiples of 4.

The BINGO caller, calls out the question eg 4×3 and the players have to find the answer on their BINGO card.

You can mix this up! Why not make a BINGO card with the questions on and the caller should call out the answers!

Roll the dice

Using dice is a great way to practice your tables!

As simple as multiplying together the roll of two dice to creating your own board game the fun you can have with dice is endless.

Try filling a grid with multiples of the times table you are practising eg multiples of 5. Roll the dice. If the you roll a 6 you have to find the answer to 5×6 . Colour in the square with the answer in.

You can use 2 die to make numbers up to 12.



Playing cards

Try a variation of 'SNAP!' but instead of matching cards the aim is to be the first to multiply them.

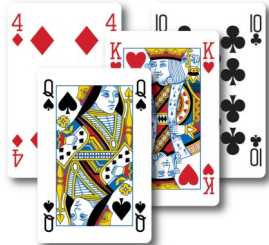
You could do the same with PAIRS

Lay the cards face down. Take it in turns to turn over 2 cards. Multiply the 2 cards together; if you get the right answer you can keep the pair. If you get the wrong answer turn the over again.

Person with the most pairs at the end wins!

Don't forget to give the picture cards a value:

Jack = 11, Queen = 12 and you could use the King as a wild card!



4x table - tips

All the **NUMBERS** in the 4 times table are **EVEN** - they end with 0, 2, 4, 6 or 8
You can work out a 4 times sum by doubling the number twice.
 7×4 is the same as $7 \times 2 = 14$, then $14 \times 2 = 28$.

Look at the **last 2 digits** of the number you want to find out about. If they are a multiple of 4, then the **whole number** is.

Let's look at the number **116**. This is a multiple of 4 because **16** is in the 4 times table.

You can reverse the sum if that makes it easier. Have a look at these coins. There are five piles with four coins in each. This is the same as the sum 5×4 .



Count them up - there are 20. Now reverse the sum so you have four piles with five coins in each - 4×5 . There are the same number of coins.



5x and 10x tables - tips

This is an easy one. All **multiples of 5** end in a **5** or a **0**.

So 4 320 is in the 5 times table because it ends in a 0.

55 552 is not because it ends in a 2.

This is another easy one.

Numbers that are **multiples of 10** always end in a **0** - 10, 20, 30, 40, 50, 60, 70, and so on.

6x table - tips

There is no easy trick for finding out if a number is in the 6 times table, but here are some tips:

All the numbers in the 6 times table are **EVEN** - they end with 0, 2, 4, 6 or 8.

They are all a **multiple of 3**, they can be divided by 3.

You can work out a 6 times sum by **doubling the number and then tripling it**.

5×6 is the same as $5 \times 2 = 10$, then $10 \times 3 = 30$.

You can reverse the sum if that makes it easier. Have a look at these coins. There are eight piles with six coins in each. This is the same as the sum 8×6 .



Count them up - there are 48. Now reverse the sum so you have six piles with eight coins in each - 6×8 . There are the same number of coins.



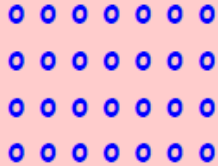
7x table - tips

There is no easy trick for finding out if a number is in the 7 times table. But there is a way of remembering the tricky sum 7×8 :

$7 \times 8 = 56$. Just remember - 5, 6, 7, 8

Try **reversing the sum** if you are having problems. 7×5 is the same as 5×7 : **35**.

You can make rectangular patterns on a piece of paper to help you. Have a look at this one - 4 rows of 7 which is the same as the sum 4×7 or 7 columns of 4 which is the same as 7×4



Count them up - there are 28.

8x table - tips

8 times table are always even. That means they can be divided by 2 without remainder. not in the 8 times table!

es table. The unit digits have a regular pattern - they **go down in 2s**.

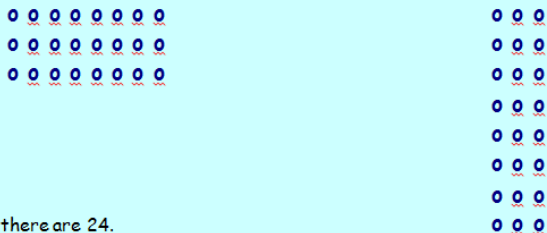
$1 \times 8 = 8$	← 8
$2 \times 8 = 16$	6
$3 \times 8 = 24$	4
$4 \times 8 = 32$	2
$5 \times 8 = 40$	0
$6 \times 8 = 48$	← 8
$7 \times 8 = 56$	6
$8 \times 8 = 64$	4
$9 \times 8 = 72$	2
$10 \times 8 = 80$	0

Try **reversing the sum** if you are having problems. 8×4 is the same as 4×8 : **32**.

You can make rectangular patterns on a piece of paper to help you. Have a look at this one -

3 rows of 8 which is the same as the sum 3×8 .

It is **the same as 8×3** - 8 rows of 3.



Count them up - there are 24.

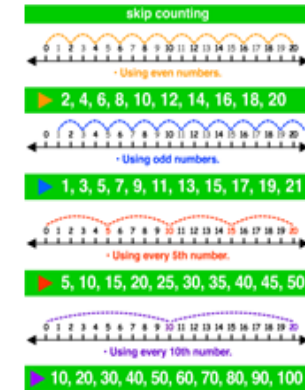
Count forward and backwards in multiples.

Whether it be as you walk to school, on a car journey, jumping on the trampoline in the back garden or as you sing in the shower; counting forwards and backwards in multiples is a great way to help you learn your tables.

3...6...9...12...15...18...21..



- Skip counting is when we count in any number other than ones
- It can be used to build up times-tables and helps to describe the pattern of numbers in different tables.
- This may be used to **predict** some other numbers that would be in the count and to answer questions such as: *What are four fives? How many twos make 18?*



Using objects from home.....

Try using a tape measure to help with skip counting



Ways to help at home

9x table - tips

Look at the numbers on the right hand side. Can you see how the **tens** go up but the **units** go down?

This is an easy one. All the digits in the 9 times table add up to 9.

$$18 = 1 + 8 = 9$$

$$27 = 2 + 7 = 9$$

$$36 = 3 + 6 = 9$$

What's 9×7 ? You can use the **9-method!**

Hold out all 10 fingers, and lower the **7th** finger.



There are 6 fingers to the left and 3 fingers on the right.

The answer is 63.

Try **reversing the sum** if you are having problems. 9×8 is the same as 8×9 : 72.

Look at the pattern opposite - can you see how the units column goes **down** one at a time and the tens column goes **up**?
You can also see how the 9 times table reverses itself!

09 ~ 90

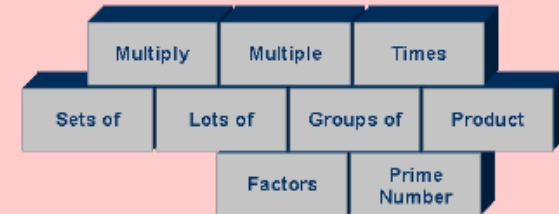
18 ~ 81

27 ~ 72

36 ~ 63

Key words for times tables

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



4 **sets of** 2 are 8

4 **lots of** 2 are 8

4 **groups of** 2 are 8

Two **fours** are 8

2 four **times** is 8

Factors

One number is a factor of another number if it divides, or 'goes into' it exactly, with no 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.

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.

Product

The product is the answer that you get when you multiply numbers together. The product of 5 and 4 is 20.