

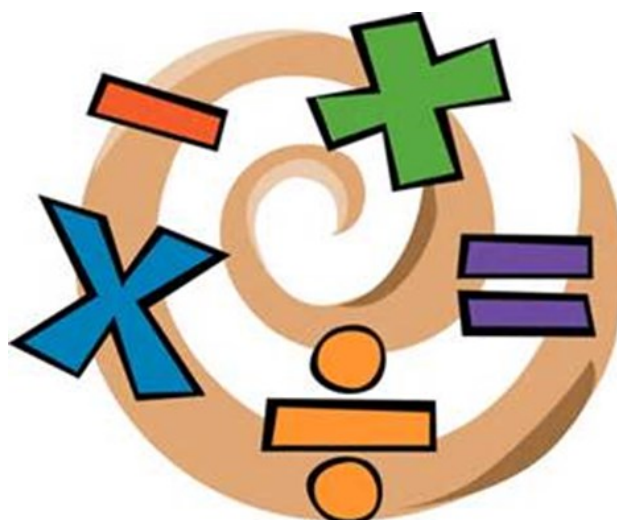
# Mastering Times Tables

One of the best ways to help children at home with their maths is learning times tables.

Children used to learn by standing up and chanting the times tables at school. Learning by rote is one strategy, but there are also other activities we can do to help you learn your tables.

The aim of this booklet is to share with you some of the strategies that you could try at home.

We hope you find it useful.



# Times Tables

Learn your tables up to  $12 \times 12$

<div>1</div> <div><math>1 \times 1 = 1</math> <math>2 \times 1 = 2</math> <math>3 \times 1 = 3</math> <math>4 \times 1 = 4</math> <math>5 \times 1 = 5</math> <math>6 \times 1 = 6</math> <math>7 \times 1 = 7</math> <math>8 \times 1 = 8</math> <math>9 \times 1 = 9</math> <math>10 \times 1 = 10</math> <math>11 \times 1 = 11</math> <math>12 \times 1 = 12</math></div>	<div>2</div> <div><math>1 \times 2 = 2</math> <math>2 \times 2 = 4</math> <math>3 \times 2 = 6</math> <math>4 \times 2 = 8</math> <math>5 \times 2 = 10</math> <math>6 \times 2 = 12</math> <math>7 \times 2 = 14</math> <math>8 \times 2 = 16</math> <math>9 \times 2 = 18</math> <math>10 \times 2 = 20</math> <math>11 \times 2 = 22</math> <math>12 \times 2 = 24</math></div>	<div>3</div> <div><math>1 \times 3 = 3</math> <math>2 \times 3 = 6</math> <math>3 \times 3 = 9</math> <math>4 \times 3 = 12</math> <math>5 \times 3 = 15</math> <math>6 \times 3 = 18</math> <math>7 \times 3 = 21</math> <math>8 \times 3 = 24</math> <math>9 \times 3 = 27</math> <math>10 \times 3 = 30</math> <math>11 \times 3 = 33</math> <math>12 \times 3 = 36</math></div>	<div>4</div> <div><math>1 \times 4 = 4</math> <math>2 \times 4 = 8</math> <math>3 \times 4 = 12</math> <math>4 \times 4 = 16</math> <math>5 \times 4 = 20</math> <math>6 \times 4 = 24</math> <math>7 \times 4 = 28</math> <math>8 \times 4 = 32</math> <math>9 \times 4 = 36</math> <math>10 \times 4 = 40</math> <math>11 \times 4 = 44</math> <math>12 \times 4 = 48</math></div>
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# Learning Tables

## SUPERFINGERS

This is a game for two players.

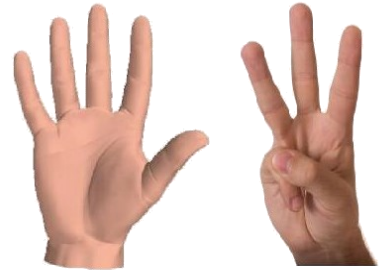
The game is basically a version of rock, paper, scissors but with numbers.

Two players count to 3 and then make a number using their fingers.

Both players then have to multiply both numbers together and the quickest wins.

player 1

player 2



## MULTIPLICATION SNAP

You will need a deck of cards for this game



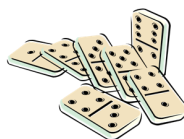
Flip over the cards as though you are playing snap. The first person to say the correct fact based on the cards turned over (a 2 and a 3 = say 6) gets the cards. The person with the most cards at the end wins.

## ANOTHER VERSION OF MULTIPLICATION SNAP

Using a deck of cards. When focussing on a particular times table then place that card face up e.g. 7. The rest of the pack is face down. Flip the top card over and multiply e.g.  $3 \times 7$ . The first person to say the answer gets the card.

## DOMINOES

Each player turns over a domino and multiplies the two ends together.



## SNAP DRAGON

Make a fortune teller with the times table on it.



## BINGO

This game will need 2 players and an adult to ask you the questions.

Make a grid of six squares on a piece of paper and write a number in each square from your target tables. Get an adult to ask you some questions. If you have the answer mark it off on your grid. The first player to mark off all their numbers is the winner.



## SPEEDY TABLES

Time challenges can be a really good way of helping times tables become automatic.

- ♦ Measuring the time it takes to write the tables, then trying to beat the time.
- ♦ How many times can you write a particular times table in 1 minute?
- ♦ Using a pack of cards with the king removed. The jack = 11 and the queen = 12. Focus on a particular table. Turn over the cards one at a time. Multiply that number by your focus times table and call out the answer. How quickly can you get through the whole pack? Can you beat your time?

## COUNTING UP, COUNTING DOWN

Use your stairs. Every time you go up a step say a multiple. Say it backwards when coming down. E.g. for the 4 times table count 4,8,12,16 etc. on the way up and count 48, 44, 40, 36 etc. on the way down. Try doing it decimal and fraction steps too.



## OUTDOOR TIMES TABLES

- ♦ Use twigs, pebbles, cones, leaves to make arrays.



- ♦ Play times table hopscotch. Try it with division!
- ♦ Play target maths for the tricky tables you find hard to learn.
- ♦ Bounce a ball/ skip/ star jump/and say your times tables or count in multiples of the one you are learning.



## SING A SONG OF TABLES

Singing tables can be a really good way for you to learn your tables. CDs of times table songs that the children can sing along to, or you could always try to make up your own to a known tune! Youtube videos provide a visual aid too.



## RHYME TIME

Silly rhymes can help children learn tricky tables, e.g.

$8 \times 8 = 64$  He ate and ate and was sick on the floor, eight times eight is 64.

$3 \times 3 = 9$  Swing from tree to tree on a vine, three times three is nine.

$7 \times 7 = 49$  Seven times seven is like a rhyme, it all adds up to 49.

## DOUBLE, DOUBLE

A quick trick for learning the fours is just to double double. Double the number and then double it again.

## TRICKY SIXES

Six times tables can be tricky to learn. One helpful trick is that in the 6 times table, when you multiply a 6 by an even number they both end in the same digit.

$$\underline{2} \times 6 = 1\underline{2}$$

$$\underline{4} \times 6 = 2\underline{4}$$

$$\underline{6} \times 6 = 3\underline{6}$$

$$\underline{8} \times 6 = 4\underline{8}$$

## LOOKING FOR PATTERNS...

Being able to spot patterns in numbers is an important skill and can also help with learning times tables. You can investigate these multiplication rules:

Odd number  $\times$  odd number = odd number e.g.  $3 \times 5 = 15$

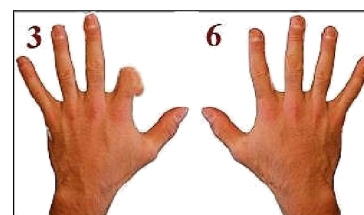
Even number  $\times$  even number = even number e.g.  $4 \times 6 = 24$

Odd number  $\times$  even number = even number e.g.  $3 \times 6 = 18$

## 9 TIMES TABLE ON YOUR FINGERS

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

For  $9 \times 4$  bend your 4th finger down (like in the picture). You have 3 fingers in front of the bent finger and 6 after the bent finger. Thus the answer must be 36!



The technique works for the 9 times table up to 10.

## ONE LESS = NINE

This is a strategy for learning the 9x table. The key to it is that for the answer in the nine times table, both digits add up to 9. Try it and see!

Subtract 1 from the number you are multiplying by. E.g.  $7 \times 9$ , one less than 7 is 6.

This number becomes the first digit in the answer.  $7 \times 9 = 6\_$

The two digits in the answer add up to 9 so the second digit must be 3.

$$7 \times 9 = 63$$

## FLASH CARDS

Use flashcards to practise the facts out of order. They could also be stuck around the house to help you learn the tricky ones!



## TIMES TABLES ON A KEYRING

Make a keyring with all the times tables on them. You can add to it as you have more to learn.

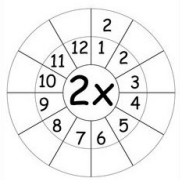
## 10X

You need to be confident when multiplying by 10 and 100. The short cut of adding 0 does not work for multiplying decimal numbers so it is best not to use this. Multiplying by 10 makes the number ten times bigger. Learn the rule that to multiply by 10 we move the digits one place left and to divide by 10 we move the digits one place to the right.

## POSTER TABLES

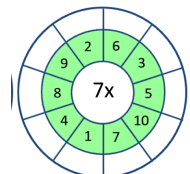
Make a tables poster for your bedroom. Decorate it and use colours to help you remember the ones you find tricky.

## CIRCULAR TABLES



Make a circular table and complete the answers. Time yourself. Try to beat your time next time you do it.

When you can do it in order try mixing up the numbers.



## CIRCULAR DIVISION

Put the table you are learning in the centre. Put the multiples around the outside (mixed order!) then work out the missing numbers.

## FACT FAMILY

Learn the relationship between multiplication and division. You should learn that  $6 \times 3 = 18$ ,  $3 \times 6 = 18$ ,  $18 \div 3 = 6$ ,  $18 \div 6 = 3$ . Make a set of cards e.g. 18, 6, 3. Ask an adult to cover one card and then you have to explain the relationship.

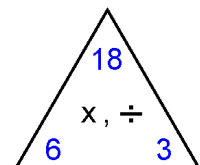
What is 3 multiplied by to give 18?

How many 6s in 18?

What is 18 divided by 3?

For older children: use this knowledge to look at related facts of e.g. 30, 60, 180

Fact Family



## FIZZ BUZZ (if you have older siblings this works well)

Count around in a group with each person taking it in turns so say the next number. Count again, but instead of saying the number you have to say fizz instead of the multiples of 5. For example 1, 2, 3, 4, fizz, 6, 7, 8, 9, fizz. Repeat this time saying buzz for multiples of 3. A challenge is to say fizz for the multiples of 3 and buzz for the multiples of 5, e.g. 1, 2, fizz, 4, buzz, 6, 7, 8, fizz, buzz, etc. What do you say for 15? This game can be adapted for other multiples.



## Useful Websites

<http://www.activelearnprimary.co.uk> (school login needed)

<http://resources.woodlands-junior.kent.sch.uk/maths/timestable/>

<http://www.topmarks.co.uk/Flash.aspx?f=HitTheButtonv10>

<http://www.topmarks.co.uk/Flash.aspx?f=SpeedChallenge>

<http://www.what2learn.com/home/examgames/maths/subtraction/>

<http://www.sumdog.com/>

See our separate document for suggestions for Apps

X	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