Parents' Guide to practising times tables

Top tips for helping your child learn their times tables:

1) Learn a **little at a time**. If you start a new times table, don’t try to master it all overnight.
Start with 1 x 5, 2 x 5 one day, then add more in when they are used to the sequence.

2) Try **different strategies**: all children learn in different ways, so what worked for an older sibling may not work for another child.

3) **Constant revision of all of the tables** is important, as they are easy to forget when you move on to a new set.

4) **Demonstrate** using concrete apparatus so that children can see, for example, 3 lots of 4 as 3 rows of 4 matchsticks.

5) **Sweets** are very good for demonstrations, as the anticipation of getting a reward can make the lesson much more memorable. As any parent knows – a little bribery goes a long way!

6) Use **real-life situations** to develop understanding of times tables, for example: “If you save 3 p every day, how much do you think you would have saved in a week?”

7) There is no ‘right’ way to learn the times tables, and it helps to know lots of **tricks, ‘cheats’ and link** between times tables facts.

The next few pages will help you to identify some ways of making the times tables more fun and relevant than just rote learning.

TRICKS OF THE TRADE!

It's just a quick way of doing a LONG addition sum:
It is very important that the children understand how the tables are compiled so that they can start to find their own tricks for speeding up:

1 x 5 = 5

This means there is 1 'lot of' 5

2 x 5 = 10

This means that there are 2 'lots of 5' i.e. 5 plus another 5
(5 + 5 = 10)

3 x 5 = 1 5

3 lots of 5 is 5 + 5 + 5 = 15 etc.

This knowledge is especially helpful for the higher number tables. If a child, does not know what 7 x 7 is they do not have to start right at the very beginning of the 7 x table but can leap in half way:

5 x 7 = 7 x 5 =35

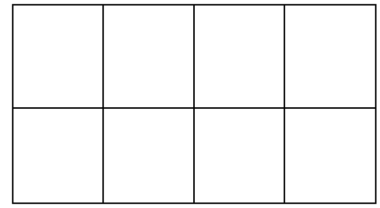
6 x 7 = 3 5 + 7 (w e n o w ha v e 6 l o t s o f 7) = 4 2

7 x 7 = 42 + 7 (7 lots of 7) = 49

Once they have learnt that they can start from 5 x the number to find higher multiples, they will be able to solve multiplication problems much more quickly.

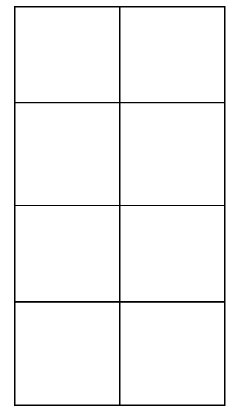
Multiplication is Commutative

(Commutative means that it doesn't matter which way around the numbers go, so 3 x 4 is the same as 4 x 3).



2 x 4 = 4 x 2

This can be demonstrated very easily by drawing a rectangle 4 squares by 2:



Here you have 2 rows of 4 squares but it is exactly the same if you turn it around so that there are 4 rows of 2 squares.

You still have 8 squares in total.

This is another good time to get out the sweets!

Large bars of chocolate are ordered into these rows and columns, or you could lay out Smarties into different arrays.

Use rhymes to aid the memory

I ate and ate `till I was sick on the floor: **8 times 8 is 64!**

Wakey, wakey, rise and shine: **seven 7s are 49!**

Make up some of your own: 7 x 8 = 56

Odd and Even Numbers

The following rules always apply:

E x E = E	E x O = E	O x E = E	O x O = O
2 x 6 = 12	4 x 5 = 20	9 x 2 = 18	7 x 3 = 21

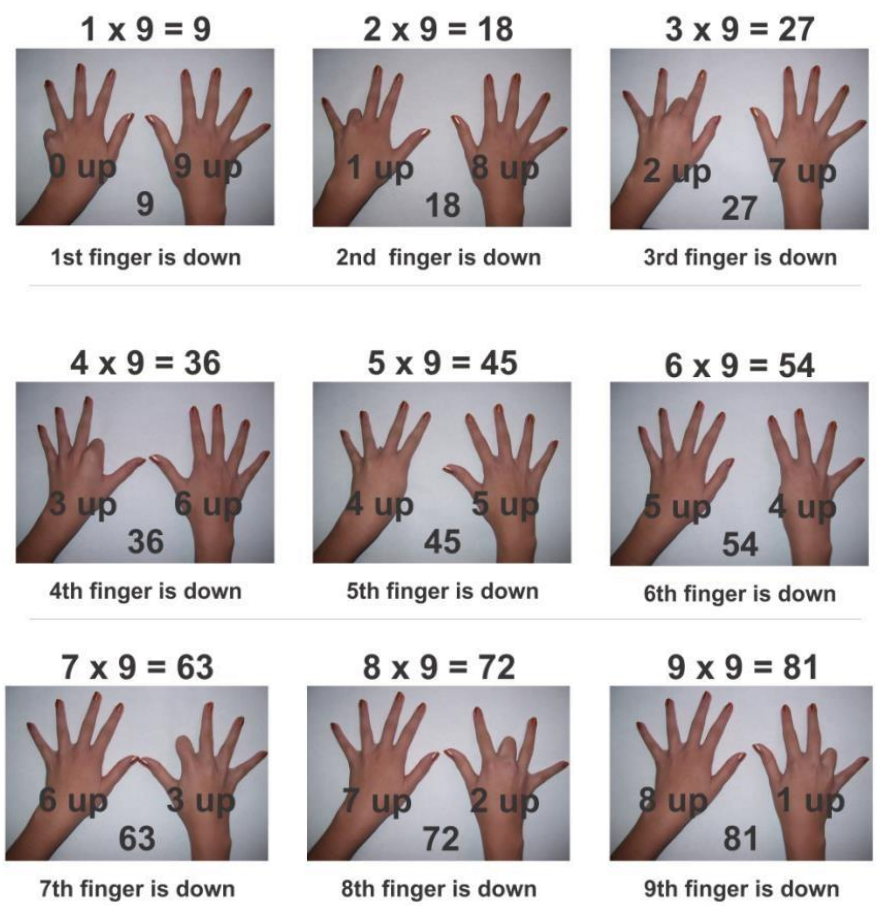
Therefore, the only time you get an odd answer is when two odd numbers are multiplied together.

Talk the tables:

- Count forwards and backwards in 2s, 3s, 4s, etc.
- Put one more finger up every time you move onto the next number in the sequence, if this will help the child to remember which number they are up to.
- Chant the tables in the old fashioned way .
- Working on only one table at a time, try saying them out of order, like: 3 x 5 = ? could be followed by, 3 x 7 = ?
- Give them the answer, for them to work out the question. Like, 35: how many 5s make this?

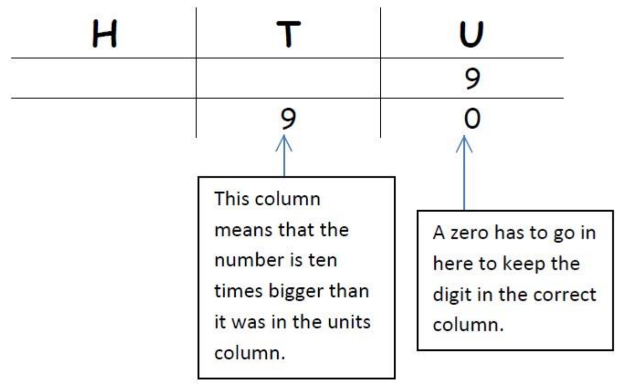
Using fingers to calculate the nine times tables:

1) Lay both hands flat, palms down, on the table.
2) Number the fingers, from left to right, 1 - 10.
3) If you want 7 x 9, wiggle the third finger and then curl it under.
4) On the left of this finger there are 6 fingers (6 TENS).
5) On the right of this finger there are 3 fingers (3 UNITS) 6) 9 x 7 = 63



Look for number patterns in the tables

Table	Pattern
0 x	Think of `empty pockets'. Ask your child how many pockets he or she has in the clothes they are wearing at the moment. If there are three pockets, all with nothing in them, then they have nothing. It doesn't matter how many pockets they have, if they are all empty, then there will be nothing. 3 x 0 = 0 etc. 
2 x	After 2, 4, 6, 8, 10, the pattern is repeated in the last digit , like: 12 14 16 18 20 22 24.
3 x	The numbers follow the pattern of: Odd, Even, Odd, Even, like: 3, 6, 9, 12, 15. Also, if you add the digits they always make a multiple of 3 e.g. 45 – 4 + 5 = 9 and 9 is in the 3x table.
4 x	4x: All of these are double the two times table: 2 4 6 8 10 (2 x table) 4 8 12 16 20 (4x table) **So if you're x by 4 then just double it and double it again!**
5 x	Any odd number times 5, ends in a 5. Any even number tunes 5 ends in a O: 1 x 5 = 5 2 x 5 = 10 3 x 5 = 15 4 x 5 = 20
6 x	These answers are just double those in the 3x table: 3 6 9 12 15 18 21 (3x table) 6 12 18 24 30 36 42 (6x table) **So if you're x by 6 then just x by 3 and double again!**
8 x	These answers are all double the 4x table: 4 8 12 16 20 (4x table) 8 16 24 32 40 (8x table) **So if you're x by 8 then just double it, double it and double it again!**
9 x	All of the digits add up to 9. This even works for really high multiples of 9, but you need to keep going until there is only one digit: 9 x 4 = 36 (3 + 6 = 9)

<table>
<tr><td>10 x</td><td>All numbers end in a zero! (Please note we are not `adding a zero'. What is actually happening is that the digits which are being multiplied move one column to the left, to make them ten times bigger – they are ‘held’ in that position by putting a zero into the empty column).

</td></tr>
<tr><td>11 x</td><td>Both digits are the same (for answers up to 100). You can also think of it as 10x tables, plus one more ‘lot’ of the number that you are multiplying by 11:
9 x 11 is the same as 9 x 10 + 9.</td></tr>
<tr><td>12 x</td><td>If you've learnt all the other tables - there actually should only be one thing to learn by this stage: 12 x 12 = 144</td></tr>
</table>

Praise for progress:

As the tables are learned, they can be coloured or highlighted both horizontally and vertically. You can use this opportunity again to emphasise that 3 x 6 = 6 x 3, so therefore as well as learning the entire 3 x table, part of the 6 x table has also been leaned so this can be coloured in as well! Therefore, by the time all the tables up to and including the 5x have been learnt, there is actually only one quarter of this grid left to commit to memory.

	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

GAMES!

Playing games is always a really effective way of learning. These are some examples that can be adapted, but please see your child's teacher if you want some more ideas.
Buy a set of blank business cards from any good stationer. Snip one corner of each card so that you can tell which way up they should be when the cards are face down.
Write a variety of times tables questions and answers the cards.

Pelmanism (or Pairs):

- Shuffle the cards and arrange them in a neat order on the table, face down.
- The players take it in turn to reverse any two cards; the cards must be left on the table face upwards so that everybody gets a good chance to look at them.
- If the two cards are equivalent the player gets to keep the pair and has another go.
- If the two cards are not a pair they are turned over once more and left on the table.
- The game continues until all the cards have been claimed.
- You could write 'questions' on half of the cards and 'answers' on the other half.

Snap

- Half of the cards should be the`question' (2 x 5) and the other half of the cards should contain the answer (10).
- Shuffle the cards and divide them equally between two players.
- The players keep their cards in a pile, face down.
- One person turns over a card and then the other person turns over a card next to it so the two cards are close to each other.
- If the cards are equivalent, the last person to have tamed over a card keeps all the cards in the two upturned piles. (it is better not to have a 'speed' element of competition in the early stages of learning, as they may need thinking time).
- The winner of the round then starts the next round.

Bingo

- Each player selects five `answers' from one of the times tables.
- Roll two die, add the dots together.
- Multiply that total by whichever table it is you are doing e.g. you are learning the 6 x table five and two is rolled on the dice, five and two is 7, 7 x 6 = 42
- Any player who has 42 on their `Bingo card' can cross it off.
- The next player rolls the dice.

Fishy Fingers

- Two player stand facing each other with their hands behind their backs.
- They say ‘Fishy-fishy fingers’ and then present their hands with numbers shown by raised fingers (like in Rock, Paper, Scissors).
- The players then need to multiply the number on their hands with their partner’s number.
- The first to say the answer wins a point and play continues.

Times Tables Table Tennis

- Each player holds an imaginary table tennis bat and one player starts with the first number in the times tables that they are learning (e.g. 3)
- Players try to build a rally by ‘batting’ the next number in that times table back to their partner (e.g. 6).
- The aim is to say the times tables as quickly as possible in order.