

Times Tables Booklet



Booklet for Parents and Carers to Support Learning Times Tables

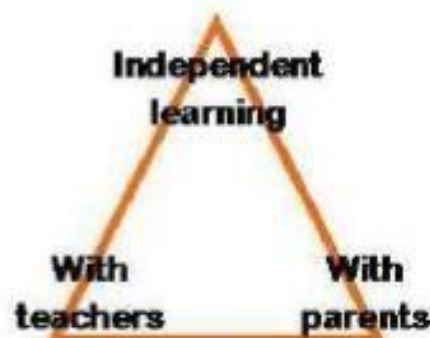
	2	3	4	5	6	7	8	9	
2	4	6	8	10	12	14	16	18	2
3	6	9	12	15	18	21	24	27	3
4	8	12	16	20	24	28	32	36	4
5	10	15	20	25	30	35	40	45	5
6	12	18	24	30	36	42	48	54	6
7	14	21	28	35	42	49	56	63	7
8	16	24	32	40	48	56	64	72	8
9	18	27	36	45	54	63	72	81	9
	2	3	4	5	6	7	8	9	

Knowledge of times tables up to 12 x 12 is essential for
ALL children from Year 4 upwards

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 it comes to do 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 who 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. $4 \times 6 = 24$ as well as $24 \div 6 = 4$.
- 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 Guidelines

The expectation of the National Curriculum is that all children will know their times tables and relative division facts up to 12 x 12 by the end of Year 4.

For example:

$$4 \times 8 = 32$$

$$8 \times 4 = 32$$

$$32 \div 8 = 4$$

$$32 \div 4 = 8$$

Reception: Count in multiples of 2, 5 and 10.

Year 1: Count in multiples of 2, 5 and 10. Recall and use all doubles to 10 and corresponding halves.

Year 2: 2, 5 and 10 times tables to be learnt

Year 3: 3, 4 and 8 times tables to be learnt

Year 4: All tables to 12 x 12 to be learnt

Year 5: All tables to 12 x 12 have been learnt and working towards instant recall, including division facts

Year 6: Thorough knowledge of tables expected with instant recall and recall of related decimal facts. For example:

$$4 \times 8 = 32$$

$$4 \times 0.8 = 3.2$$

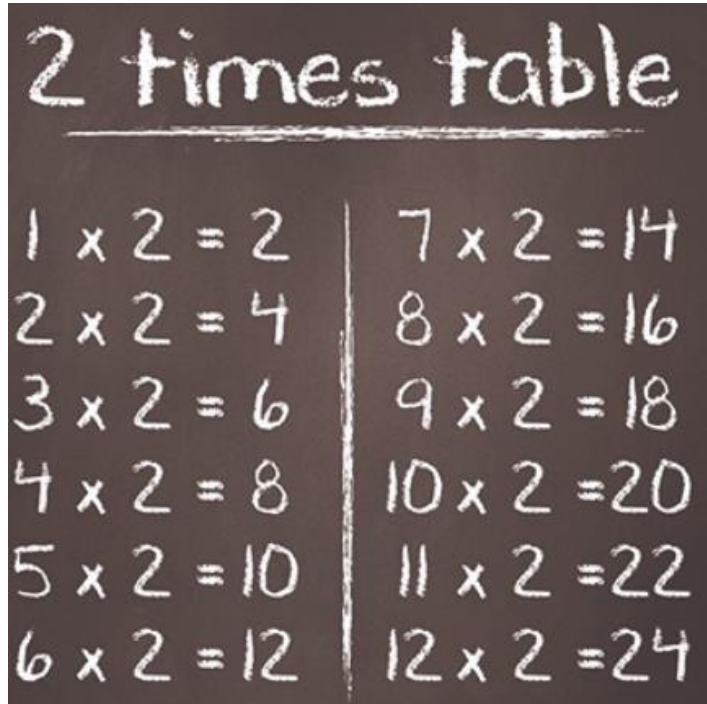
$$0.4 \times 8 = 3.2$$

$$40 \times 8 = 320 \text{ etc.}$$

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 when they are used to the sequence.

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



A chalkboard with the title '2 times table' written at the top. Below the title, there are two columns of multiplication facts. The left column contains facts from 1 x 2 to 6 x 2, and the right column contains facts from 7 x 2 to 12 x 2. The facts are written in a white chalk-like font on a dark background.

<u>2 times table</u>	
1 x 2 = 2	7 x 2 = 14
2 x 2 = 4	8 x 2 = 16
3 x 2 = 6	9 x 2 = 18
4 x 2 = 8	10 x 2 = 20
5 x 2 = 10	11 x 2 = 22
6 x 2 = 12	12 x 2 = 24

3. **Constant revision of all 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 rows of buttons/counters etc.
5. **Grapes or raisins** are very good for demonstration, as the anticipation of getting a reward can make the lesson much more memorable.
6. Use **real-life situations** to develop understanding of times tables. For example, "if you save 3p each day, how much will you have saved in 7 days?"
7. There is no 'right' way to learn the times tables, and it helps to know lots of tricks, cheats and links between times tables facts.

Tricks of the Trade

It's just a quick way of doing a LONG addition sum:

It is very important that children understand how the tables are compiled so that they can start find their own tricks for speeding

to
up:

$$1 \times 5 = 5$$

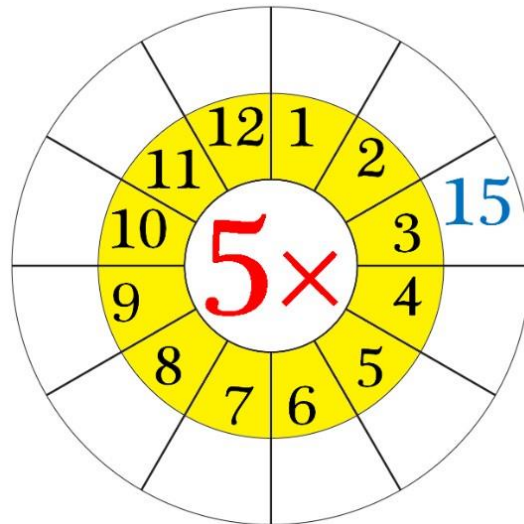
This means there is 1 'lot of' 5

$$2 \times 5 = 10$$

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

$$3 \times 5 = 15$$

(3 lots of 5 or $5 + 5 + 5 = 15$)



This knowledge is especially helpful for higher up number tables. If a child does not know what 7×7 is they do not have to start at 1×7 and work their way up. They can start at one that they know, for example 5×7 :

$$5 \times 7 = 35$$

$$6 \times 7 = 35 + 7 = 42 \quad 7 \times 7 = 42 + 7 = 49$$

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

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!**

Talk the Tables

1. Count forwards and backwards in 2s, 3s, 4s, etc.
2. Put one more finger up every time you move to the next number in the sequence. This will help your child to remember which number they are up to.
3. Chant the tables the 'old-fashioned' way (1 times 2 is 2, 2 times 2 is 4, etc.)
4. Working on only one table at a time, try saying them out of order. For example, $3 \times 5 = ?$ could be followed by $3 \times 7 = ?$
5. Give them the answer, for them to work out the question. For example, 35: how many 5s is this?



Flash Cards

Make a set of cards for the times table being learnt by putting a question on one side of the card ($6 \times 5 =$) and the answer on the reverse (30). 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.

The Finger Trick for the Nine Times Table

1. Lay both hands flat, palms down, on the table
2. Number the fingers 1 to 10, from left to right
3. If you want **8** x 9, wiggle the **eighth** finger and then curl it under.
4. The left-hand side is the tens. On the left-hand side there are 7 fingers (7 tens).
5. The right-hand side is the ones. On the right-hand side there are 2 fingers (2 ones).
6. 7 tens plus 2 ones is 72 and so 8×9

x 0	Think of empty pockets . Ask your child how many pockets he or she has in the clothes that they are wearing at the moment. If there are 3 pockets, all with nothing in them, then they have nothing. It doesn't matter how many empty pockets they have, they will always have nothing: $3 \times 0 = 0$, $8 \times 0 = 0$, etc.
x 1	Any number multiplied by 1 is that number: $2 \times 1 = 2$, $6 \times 1 = 6$, etc.
x 2	After 2, 4, 6, 8, 10, the pattern is repeated in the last digit: 12, 14, 16, 18, 20, 22, 24.
x 3	The numbers follow a pattern of odd, even, odd, even, odd, etc. 3, 6, 9, 12, 15, 18, 21, 24, 27, 30, 33, 36.
x 4	All of the numbers are double the two times table: 2, 4, 6, 8, 10 (2 x table) 4, 8, 12, 16, 20 (4 x table).
x 5	Any odd number times 5 ends in a 5. Any even numbers times 5 ends in a 0: $x 5 = 5$ $2 \times 5 = 10$ $x 5 = 15$ $4 \times 5 = 20$
x 6	These answers are just double those in the 3x table: 3, 6, 9, 12, 15 (3 x table) 6, 12, 18, 24, 30 (6 x table).
x 8	These answers are all double the 4 x table: 4, 8, 12, 16, 20 (4 x table) 8, 16, 24, 32, 40 (8 x table).
x 9	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. $x 4 = 36$ ($3 + 6 = 9$) $x 8 = 72$ ($7 + 2 = 9$) $x 101 = 909$ ($9 + 0 + 9 = 18$, $1 + 8 = 9$)
x 10	All numbers end in a zero!
x 11	Both digits are the same (for answers up to $9 \times 11 = 99$). You can also think of the 10 x table, plus one more 'lot' of the number that you are multiplying by 11: $9 \times 11 = 99$. This is the same as $9 \times 10 + 9$
x 12	If you've learnt all the other times tables then you only have one left to learn: $12 \times 12 = 144$.

Look for Patterns in the Tables

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

Check Your Child's Progress

As the tables are learned, colour or highlight the ones that your child knows both horizontally and vertically on a multiplication grid. Use the opportunity to emphasise that $3 \times 6 = 6 \times 3$, so that as well as learning the 3 times table they have also learnt part of the 6 times table! This means that by the time all of the times tables up to $5 \times$ have been learnt, there is actually only one quarter of the grid left to learn.

Games

Playing games is always a really effective way of learning. Here are some examples that you can adapt.

Cards

Buy a set of blank business cards from a stationary shop.

Snip one corner from 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 on half of the cards (for example '5 x 2') and their answers on the other half of the cards (for example '10')



1. Shuffle the cards and arrange them in a neat order on the table, face down.
2. The players take it in turns to look at any two cards. The cards must be left face upwards so that everybody gets a good chance to look at them.
3. If the two cards are equivalent (the answer matches the question) the player gets to keep the pair and has another go.
4. If the cards are not a pair, they are turned over once more and left on the table. The next player takes their turn.
5. The game continues until all of the cards have been claimed.



1. Shuffle the cards and divide them equally between two players.
2. The players keep their cards in a pile, face down.
3. 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.
4. If the cards are equivalent (the answer matches the question) then the first player to say "SNAP!" keeps all of the upturned cards and puts them on the bottom of their pile.
5. The winner of the round then starts the next round.



1. Each player selects six 'answers' from one of the times tables and writes them on a bingo card.
2. Roll 2 dice, add the dots together.
3. Multiply that total by whatever times table it is that you are practising.
4. The next player rolls the dice.

For example: You are practising the 6x table.

A 5 and 2 are rolled on the dice.

$5 + 2 = 7$, so the multiplication question is $7 \times 6 = 42$.

The player with 42 on their 'bingo card' can cross it off.

Fishy Fingers

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



1. Each player holds an imaginary table tennis bat
2. One player starts with the first number in the times tables that they are learning (e.g. 3).
3. Players try to build a 'rally' by 'batting' the next number in that times table back to their partner (e.g. 6).

Useful Maths Websites for Learning Times Tables

There are numerous apps and websites that can be used for practising times tables at home.

A few that you might find useful are:

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

<http://www.timestables.me.uk/>

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

<https://www.timestables.co.uk/multiplication-tables-check/>

https://www.transum.org/Tables/Times_Tables.asp

<https://www.bbc.co.uk/teach/skillswise/times-tables/z4gs7nb>

http://www.familylearning.org.uk/multiplication_games.html

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

<https://www.topmarks.co.uk/maths-games/5-7-years/times-tables>

<http://www.primaryhomeworkhelp.co.uk/maths/timestable/interactive.htm>

Times Tables Rockstars

The children are set homework each week and the algorithm matches the tables to the child's achievements. In school, a monthly gig assessment is taken to track progress.

Each week a child is chosen to be awarded a certificate and go on the School's Hall of Fame Board.

Individual classes celebrate weekly achievements in their own ways.

1

$$\begin{aligned}1 \times 1 &= 1 \\2 \times 1 &= 2 \\3 \times 1 &= 3 \\4 \times 1 &= 4 \\5 \times 1 &= 5 \\6 \times 1 &= 6 \\7 \times 1 &= 7 \\8 \times 1 &= 8 \\9 \times 1 &= 9 \\10 \times 1 &= 10 \\11 \times 1 &= 11 \\12 \times 1 &= 12\end{aligned}$$

2

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

3

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

4

$$\begin{aligned}1 \times 4 &= 4 \\2 \times 4 &= 8 \\3 \times 4 &= 12 \\4 \times 4 &= 16 \\5 \times 4 &= 20 \\6 \times 4 &= 24 \\7 \times 4 &= 28 \\8 \times 4 &= 32 \\9 \times 4 &= 36 \\10 \times 4 &= 40 \\11 \times 4 &= 44 \\12 \times 4 &= 48\end{aligned}$$

5

$$\begin{aligned}1 \times 5 &= 5 \\2 \times 5 &= 10 \\3 \times 5 &= 15 \\4 \times 5 &= 20 \\5 \times 5 &= 25 \\6 \times 5 &= 30 \\7 \times 5 &= 35 \\8 \times 5 &= 40 \\9 \times 5 &= 45 \\10 \times 5 &= 50 \\11 \times 5 &= 55 \\12 \times 5 &= 60\end{aligned}$$

6

$$\begin{aligned}1 \times 6 &= 6 \\2 \times 6 &= 12 \\3 \times 6 &= 18 \\4 \times 6 &= 24 \\5 \times 6 &= 30 \\6 \times 6 &= 36 \\7 \times 6 &= 42 \\8 \times 6 &= 48 \\9 \times 6 &= 54 \\10 \times 6 &= 60 \\11 \times 6 &= 66 \\12 \times 6 &= 72\end{aligned}$$

7

$1 \times 7 = 7$
 $2 \times 7 = 14$
 $3 \times 7 = 21$
 $4 \times 7 = 28$
 $5 \times 7 = 35$
 $6 \times 7 = 42$
 $7 \times 7 = 49$
 $8 \times 7 = 56$
 $9 \times 7 = 63$
 $10 \times 7 = 70$
 $11 \times 7 = 77$
 $12 \times 7 = 84$

8

$1 \times 8 = 8$
 $2 \times 8 = 16$
 $3 \times 8 = 24$
 $4 \times 8 = 32$
 $5 \times 8 = 40$
 $6 \times 8 = 48$
 $7 \times 8 = 56$
 $8 \times 8 = 64$
 $9 \times 8 = 72$
 $10 \times 8 = 80$
 $11 \times 8 = 88$
 $12 \times 8 = 96$

9

$1 \times 9 = 9$
 $2 \times 9 = 18$
 $3 \times 9 = 27$
 $4 \times 9 = 36$
 $5 \times 9 = 45$
 $6 \times 9 = 54$
 $7 \times 9 = 63$
 $8 \times 9 = 72$
 $9 \times 9 = 81$
 $10 \times 9 = 90$
 $11 \times 9 = 99$
 $12 \times 9 = 108$

10

$1 \times 10 = 10$
 $2 \times 10 = 20$
 $3 \times 10 = 30$
 $4 \times 10 = 40$
 $5 \times 10 = 50$
 $6 \times 10 = 60$
 $7 \times 10 = 70$
 $8 \times 10 = 80$
 $9 \times 10 = 90$
 $10 \times 10 = 100$
 $11 \times 10 = 110$
 $12 \times 10 = 120$

11

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

12

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

I know all my Times Tables



Awarded to: _____

Signed: _____ Date: _____