Great Binfields Primary School

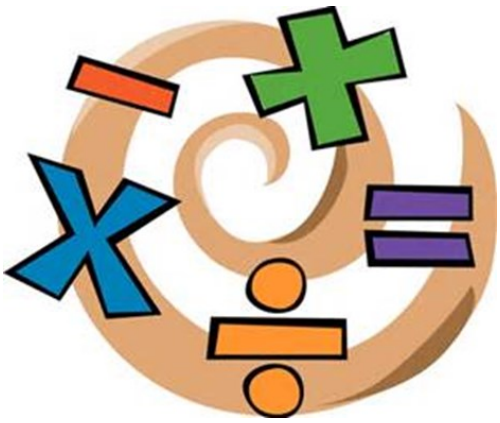
Times Tables Guide

We are often asked for ideas to help children at home with their Maths. Learning times tables is a brilliant way which makes a huge difference.

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.

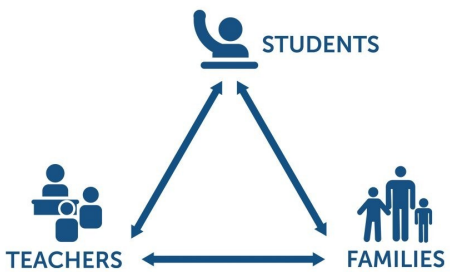
The aim of this booklet is to share with you some of the strategies we use in school and that you could try at home.

We hope you find it useful.



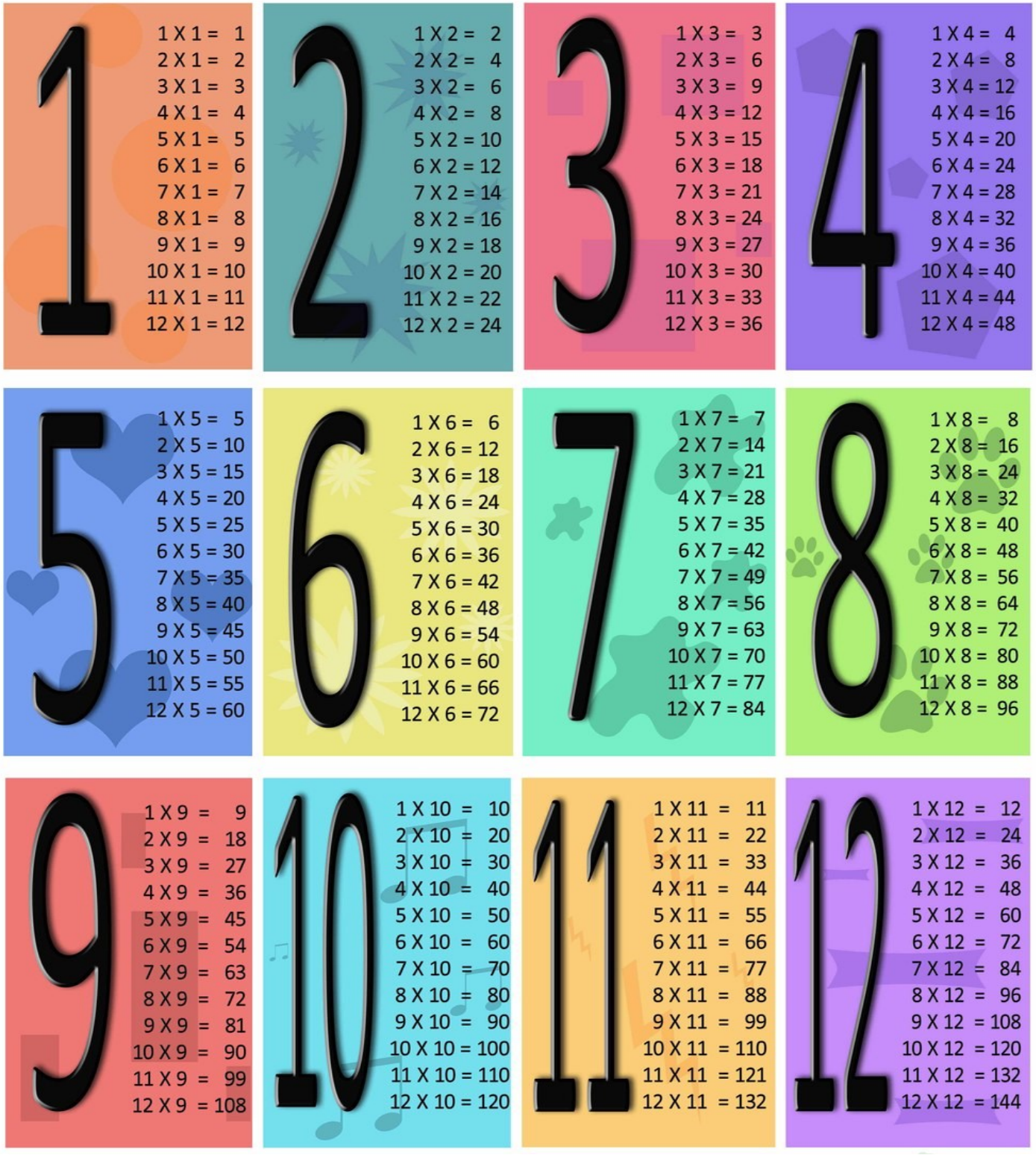
The importance of times table knowledge

- Knowing times table facts is crucially important to your child's progression in their Mathematics education.
- Without a deep understanding of multiplication and division facts, children can get challenged and find fractions and multiplication/division with larger numbers tricky.
- Many mental maths activities and tests require a quick recall of multiplication and division facts.
- Children who are secure in their times table knowledge are often able to get to grips with trickier tasks straight away or are more successful.
- 'Knowing' times tables means a child 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 e.g. 4 x 6 = 24 as well as 24 ÷ 6 = 4.
- **Learning multiplication facts and tables are most effective when there is collaboration with school, parents/carers 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/carers.



Times Tables

We learn our tables up to 12 x 12



Times Tables Expectations For Your Child

Below are the times tables your child should know, as a minimum, by the end of each academic year. This is in line with national expectations.

Reception: When counting objects, children should be able to group in twos, fives and tens and record the total.

Year 1: Record sequences of twos, fives and tens (e.g. 2, 4 6, 8 etc.) and identify any missing multiples. Know off by heart the doubles and halves of numbers to 12. Draw and use arrays to solve multiplication problems.

By the end of Y2	By the end of Y3	By the end of Y4	By the end of Y5	By the end of Y6
2, 5, 10 including division facts.	2, 3, 4, 5, 8, 10 including division facts.	All times tables up to 12 x 12 with division facts.	As Year 4 and related questions e.g. 1/9 of 63 is 7. Knowledge of prime numbers to 19.	As Year 5 and a knowledge of prime numbers below 100. Identify common factors and multiples.

WEBSITES

https://play.ttrockstars.com/ - Children will be given logins to TTRS/Numbots

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

https://tablestest.com/

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

https://www.coolmathgames.com/1-number-games

Learning Tables

SUPERFINGERS

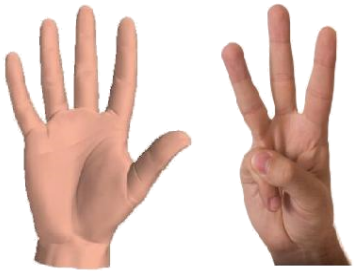
This is a game for two players.

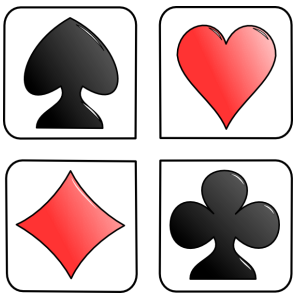
The game is basically a version of rock, paper, scissors but with numbers.

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. Focus 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 x 7. The first person to say the answer gets the card. If the answer is wrong put the card to the bottom of the pile. The person with the most card wins.

DOMINOES

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

FORTUNE TELLERS

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.

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. There are lota of videos and songs available online, or you could always make up your own to a known tune!

RHYME TIME

Silly rhymes can help children learn tricky tables, e.g.
8x8=64 He ate and ate and was sick on the floor, eight times eight is 64.
3x3=9 Swing from tree to tree on a vine, three times three is nine.
7x7=49 Seven times seven is like a rhyme, it all adds up to 49.
Two and four want to celebrate;
they're turning eight (2 x 4 = 8)
Six and eight are running late! How many minutes? Forty-eight!

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.

2x6=12
4x6=24
6x6=36
8x6=48

LOOKING FOR PATTERNS…

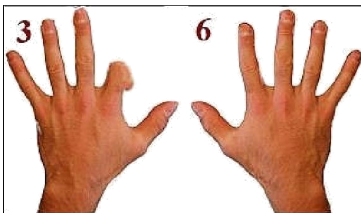
Being able to spot patterns in numbers is an important skill and can also help with learning times tables. You can investigate these multiplication rules:

Odd number x odd number = odd number e.g. 3x5=15
Even number x even number = even number e.g. 4x6=24
Odd number x even number = even number e.g. 3x6=18

9 TIMES TABLE ON YOUR FINGERS

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

For 9 x 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. 7x9, one less than 7 is 6.

This number becomes the first digit in the answer. 7x9=6_

The two digits in the answer add up to 9 so the second digit must be 3.
7x9=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.

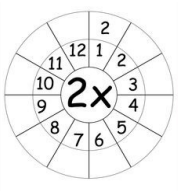
10X

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. Make sure you look at it and use it regularly so it doesn't just become wallpaper!

CIRCULAR TABLES/MULTIPLICATION FLOWERS



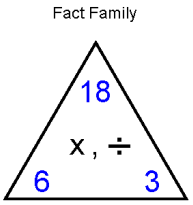
Make a circular table/flower and complete the answers. Time yourself. Try to beat your time next time you do it. When you can do it in order, try mixing up the numbers.

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 6x3=18, 3x6=18, 18÷3=6, 18÷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



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.

Top Times Table Hints

Zero Times Table
Anything multiplied by zero will always equal zero. Multiplication is repeated addition so 3 x 0 is 0 + 0 + 0, which equals 0. One Times table Any number multiplied by one is itself.

Two Times Table
Any number multiplied by two is double the number. 7 x 2 =14 7 + 7 = 14 double 7 is 14

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).

Four Times Table
The four times table is double the two times table. 4 x 2 = 8, 4 x 4 = 16, 16 is double 8. Alternatively the fours can be thought of as double double. So double 3 (6) and double again (12) is the same as 3 x 4 = 12.

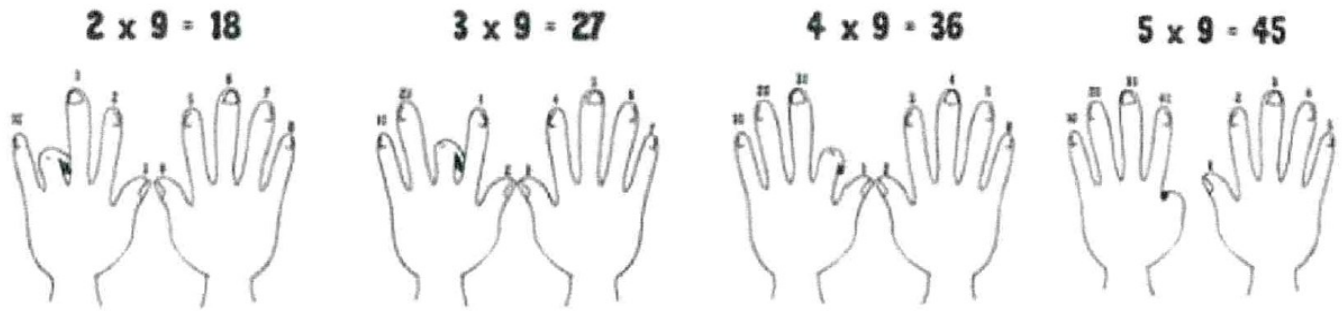
Five Times Table
All multiples of 5 end in five or zero. For even numbers (e.g. 8 x 5) you can halve the number (4) and then put a zero after it (40). For odd numbers (e.g. 7 x 5) you can subtract one from the number (6), halve it (3) and then put a 5 after it (35). Any odd number times 5 ends in a 5. Any even number times 5 ends in 0.

Six Times Table
The six times table is double the three times table. So 5 x 3 = 15, 5 x 6 = 30, 30 is double 15.

Seven Times Table
Combine the 5 and the 2 times table: 7 x 4 = 28 or (5x4) + (2x4) = 28

Eight Times Table
The eight times table is double the four times table. So 7 x 4 = 28, 7 x 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).

Nine Times Tables
Fingers can be used to work out the nine times table up to 10 x 9. The first finger is put down for 1 x 9 and the remaining fingers show 9 units (1 x 9 =9). Then the second finer is put down for 2 x 9 and the remaining fingers show 1 ten (to the left) and 8 units (to the right) which equals 18, and so on.



For example: The digits found in the multiples of nine when added together also equal nine. For example: 9 = 9, 18 (1 + 8) = 9, 27 (2 + 7) = 9, 36 (3 + 6) = 9, 45 (4 + 5) = 9 etc.

Ten Times Table

All the digits in the ten times table end in zero.

Eleven Times Table

Most of the multiples in the eleven times table are recalled by putting two of the number side by side. 7 x 11 = 77, 8 x 11 =88.

Twelve Times Table

The units in the twelve times table go up in twos. 12, 24, 36, 48, 60, 72, 84, 96, 108, 120, 132, 144 (2, 4, 6, 8, 0, 2, 4, 6, 8, 0). The multiples of 12 are also the multiples of 10 and the multiples of 2 combined.

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

LOOKING FOR PATTERNS…

What are the green numbers?

Look at the 3, 6 and 9 times tables—what do you notice?

Look at the 11 times table—what do you notice?