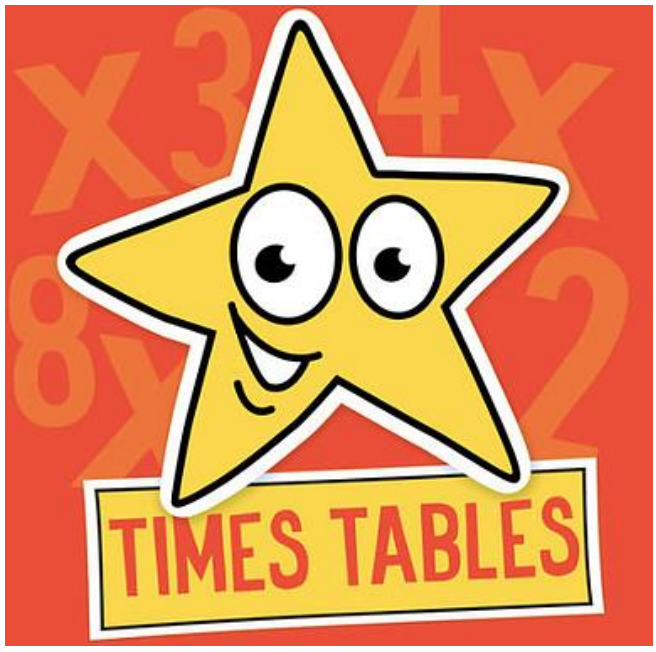
Multiplication Check Information Booklet



2018

T.Bastian C Malone S Greer

November 2018

Multiplication Tables Check (MTC)

The **Multiplication Tables Check (MTC)** will be administered to children in Year 4, starting in the 2019-20 academic year.

The purpose of the MTC is to determine whether Year 4 pupils can recall their multiplication tables up to 12x12 fluently as outlined in the National Curriculum.

Children will be tested using a computer, where they will have to answer multiplication questions against a clock. The test will last no longer than 5 minutes; children will have 6 seconds to answer each question in a series of 25.

A sound recall of times tables will form a strong foundation for all maths learning that follows especially in the lead up to Year 6 SATS.

I'm sure we all remember standing up, chanting tables at school. Learning by rote is one strategy, but there are also other activities we can do with children to help them learn their tables.

How with the Multiplication Check be administered?

The MTC will be **administered as an online**, **on-screen digital assessment**. Under standard administration, the check will take each pupil **less than 5 minutes to complete**. It will be automatically scored, and results will be available to schools once the assessment window closes.

Who will be assessed?

The MTC will be available as a **non-statutory, voluntary check in the 2018/19 academic year** and we have decided as a school to participate in this. The current Year 4 cohort will complete this check in the summer term.

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However, the actual MTC will be **statutory from the 2019/20 academic year** and all **eligible year 4 pupils** who are registered at maintained schools, special schools or academies (including free schools) in England will be required to take the check.

What is happening now?

Across the school, as part of daily input and weekly lesson design, children are **regularly taught** and **practising the rapid mental recall of multiplication facts** as part of their mathematical learning and in line with expectation set out by the 2014 National Curriculum.

Year group **expectations** regarding multiplication are as follows:

Year One

- **Counting** in **2's, 5's** and **10's**

Year Two

- Recalling **multiplication facts** for **2, 5** and **10**

Year Three

- Recalling **multiplication facts** for **3, 4** and **8**

Year Four

- Recalling **multiplication facts** for numbers up to **12x12**

What will happen next?

In order to ensure as a school, our pupils are best prepared for the MTC in 2019-20, we are participating in a **Deanery Maths Multiplication check project** with the current Year 4 cohort which will be assessing the impact of a range of strategies to best support the earning of multiplication facts.

Additionally, we will be launching the use of a free multiplication App for children to use at home and at school that will allow them to regularly practise their multiplication facts and track their progress and ability.

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As a school, we will also take part in the **voluntary Multiplication check** that is due to take place in the summer term, later this year.

What can you do?

- DO NOT PANIC ☺

- **Encourage** your children to **take an active interest** in learning and acquiring their respective **multiplication facts**

- Make **use of the Multiplication App** and **other tools** we will be providing and you will be made aware of

The aim of this booklet is to show you some of the strategies we use in school and that you could try at home to help your child with their tables.
We hope you find it useful!

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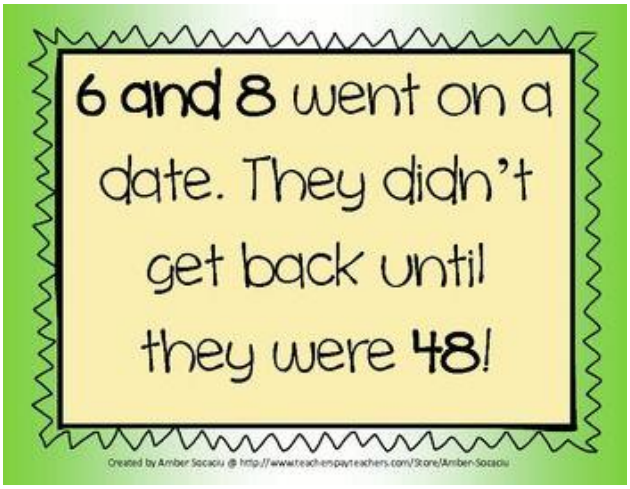
Rhyme Time!

Silly rhymes and songs can help children to remember these patterns, e.g. '0 2 4 6 8, my mum thinks I'm great' – the sillier the better really!

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.
8x8=64	He ate and ate and was sick on the floor, eight times eight is 64.

You can:

- See if, together, you can think of a silly rhyme to go with the first few numbers in each table: **'5, 10, 15, 20 ...'**



One Less **Equals Nine!**

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

1. Subtract 1 from the number you are multiplying by. E.g. 7x9, one less than 7 is 6.
2. This number becomes the first number in the answer. 7x9=6__
3. The two numbers in the answer add up to 9 so the second number must be 3. 7x9=63

You can:

- Investigate this theory with your child by exploring this rule and finding more patterns. This will familiarise your child with the 9 times tables.

Bingo!

This game will need 2 players!

Make a grid of six squares on a piece of paper and ask your child to write a number in each square from the target tables. Give them a question and if they have the answer, they mark them off. First one to mark off all their numbers is the winner!

You can:

- Turn this into a family game and include a reasonable reward/incentive to entice your child.

Number Squares

When numbers are placed in a number square, highlighted times tables make a visual pattern. Some children find these very visual patterns help them to remember the table.

Here is a number square with the 3 times table highlighted.

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
51	52	53	54	55	56	57	58	59	60
61	62	63	64	65	66	67	68	69	70
71	72	73	74	75	76	77	78	79	80
81	82	83	84	85	86	87	88	89	90
91	92	93	94	95	96	97	98	99	100

You can:

- Print the 3 times table number square and stick it somewhere in your house, where your child will find it easy to read for a few minutes a day. Encourage them to read to 12 × 3 a few times and then close their eyes and see how much they can recall.
- Print off a plain number square to explore. With your child, choose a times table for them to highlight with a coloured pencil or highlighter pen. See if they can see a pattern appearing. Now practise the times table as above.

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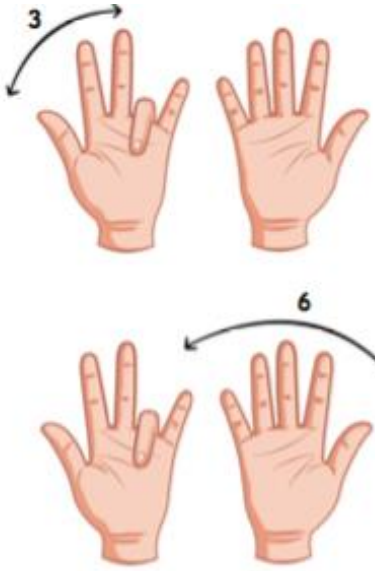
9 Times Tables on your Fingers!



1. Hold your hands in front of you with your fingers spread out.
2. For 9 x 4 bend your 4th finger down (like the picture).
3. You have 3 fingers in front of the bent finger and 6 after the bent finger. Thus the answer must be 36!
4. The technique works for the 9 times table up to 10.

You can:

- Explore with your child which method helps them most with the 9 times table – the more physical hand trick, or the more visual exploration of number patterns.

Super Fingers!

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.

You can:

- Adapt other games to focus on multiplication tables, or create some totally new tables games with your child.
- Start the game by giving children a copy of the times table to refer to if they need it. Then, when they're ready for the challenge, they can try the game without.

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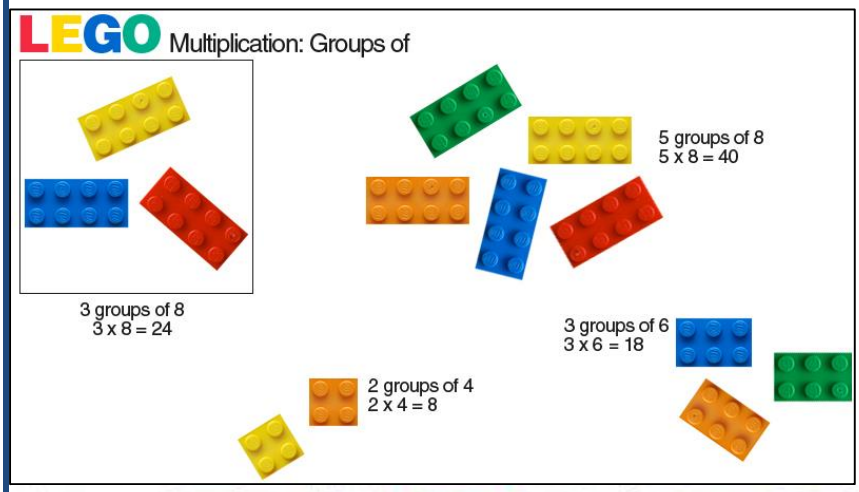
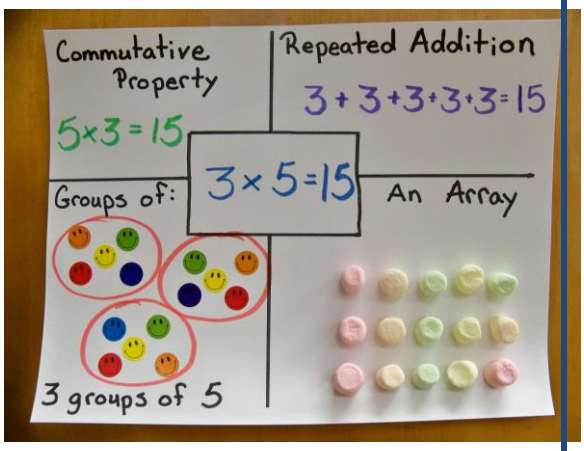
Concrete Pictorial & Abstract Approach (CPA)

Manipulation of physical resources and construction of pictorial representations before conquering the abstract understanding of times tables is extremely valuable. Multiplication has a strong presence in our day-to-day life. Look for opportunities to use them when problem-solving when shopping or using recipes. In order for maths experiences to be effective children need to be able to work with and manipulate practical materials.





You can:

- Organise a multiplication array hunt. Exploration of arrays will increase your child's understanding of multiplication.

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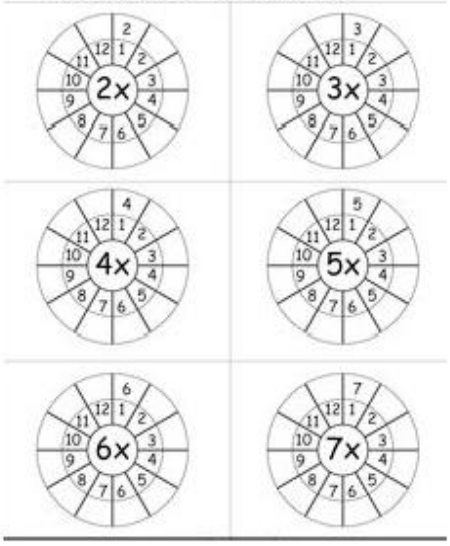
Drawing and making arrays

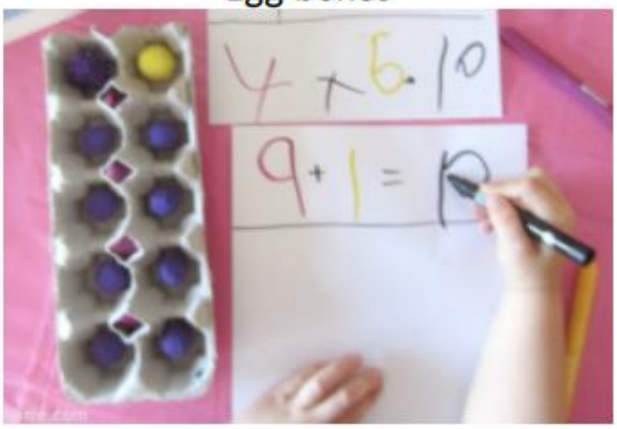
Multiplication target circles

Multiply the numbers by the center number.

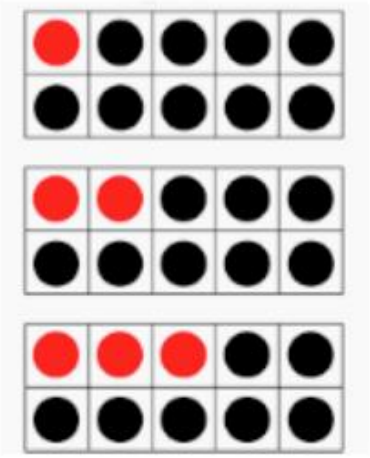


Number bonds

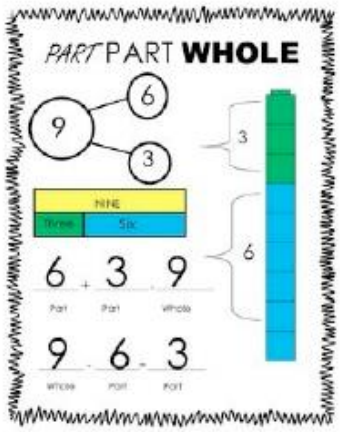
Egg boxes



Ten frames



Part-part-whole model



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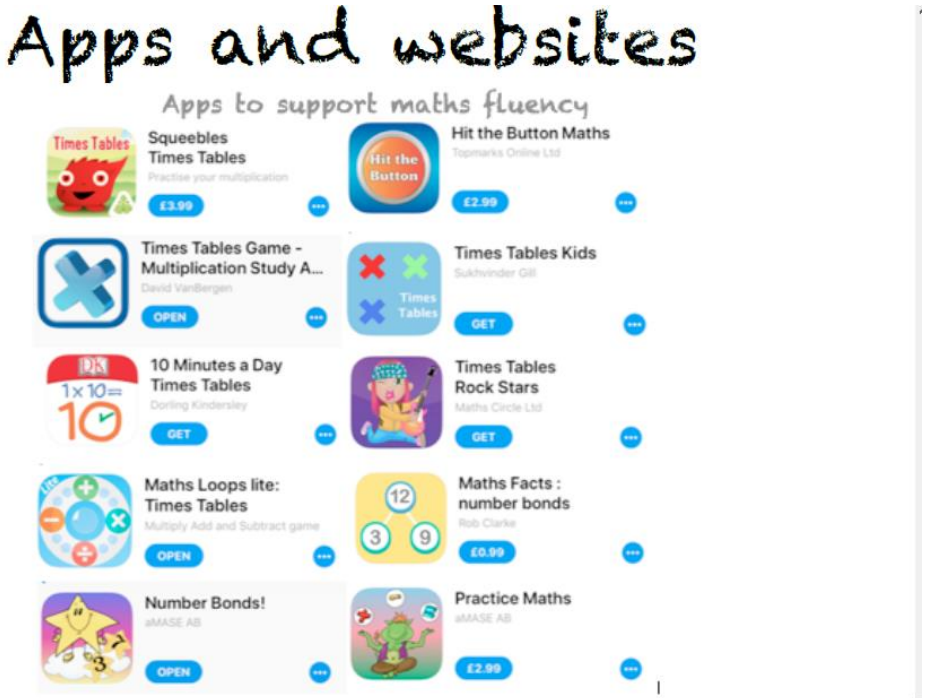

Mathletics	https://community.mathletics.com/signin/#/student
Hit the button	https://www.topmarks.co.uk/maths-games/hit-the-button
ICT games	http://www.ictgames.com/multiplication_rounding.htm
Ways to make 10	https://www.topmarks.co.uk/Flash.aspx?f=WaystoMake
Maths playground – numberbonds	https://www.mathplayground.com/number_bonds_10.html

Maths Frame Multiplication Tables Check

https://mathsframe.co.uk/en/resources/resource/477/Multiplication-Tables-Check

This website has created a game to mirror the 'Multiplication Tables Check' that will be given to children at the end of Year 4. There are twenty-five questions and children have six seconds to answer each question and three seconds between questions.

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We hope you find this booklet useful.
With grateful thanks to:

T Bastian - Sacred Heart
C Malone – St Teresa's
S Greer – SS Peter & Paul

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