TIMES TABLES WORKSHOP

12th January 2022

Multiplication Tables Check Explained

What is the purpose of the Multiplication Tables Check (MTC)?

- Primary-school children are expected to know all their times tables ***(and related division facts***) up to 12x12.
- The purpose of the MTC is to determine whether year 4 pupils can fluently recall their multiplication tables. Although the check will help schools to identify pupils who require additional support, it is not intended as a diagnostic tool.

Which children will sit the multiplication check?

- The times tables test will be taken by children in Year 4, in the summer term (in June).
- In June 2020 it was planned to become compulsory for all English schools, however, both the 2020 and 2021 checks were cancelled due to the pandemic. Schools could voluntarily participate in 2021, which Fairfield Primary School did, in order for us to gain insight into what the check involved.

Multiplication Tables Check Explained

How will children be tested?

- Children will be tested using an on-screen check, where they will have to answer multiplication questions against the clock. The children have 6 seconds to answer a question. The test will last no longer than 5 minutes and their answers will be marked instantly.

Can children practise before the test?

- Before the test window opens each year, there will be the opportunity for children to access a practice area to become familiar with the style of the KS2 times tables test.
- We will build in time for this familiarisation, so the check style is not ‘new’ when children take the actual check. The results from the practice area will not be reported on or available to schools, so this cannot be used as an ongoing tool for assessment before the actual check.

Multiplication Tables Check Explained

What tables will be tested?

There Will Not Be An Equal Spread Of Each Multiplication Table Within The Check

- The check has been designed to focus on times tables that fit within the KS2 curriculum.
- The 6, 7, 8, 9 and 12 times tables are more likely to be asked than the 2, 3, 4, 5, 10 or 11 multiplication tables. The STA state that there is a focus on these as these are the 'most difficult' multiplication tables.
- There will always be questions from the 3, 4, 5, 6, 7, 8, 9, 11 and 12 multiplication tables in each test.
- There will be no questions from the 1 times table (i.e 1 x 8 or 8 x 1)
- There will only be a maximum of 7 questions from the 2, 5 and 10 times tables.
- Reversal of questions using the commutative law will not feature in the same check. This means that, for example, 8 x 3 and 3 x 8 won't be asked to the same pupil.

Multiplication Tables Check Explained

Breakdown

5.2.1 Table 1 – Multiplication table limits in the MTC

Multiplication Table	Minimum number of items in each form	Maximum number of items in each form
1	Not applicable	Not applicable
2	0	2
3	1	3
4	1	3
5	1	3
6	2	4
7	2	4
8	2	4
9	2	4
10	0	2
11	1	3
12	2	4

Multiplication Tables Check Explained

Which facts are the most likely to appear?

- **Eleven Facts Are More Likely To Appear Than Others**
- The framework sets out that the second number in the multiplication will be monitored to ensure that the instances of each number is +/- 1 of the parameters discussed above.
- This means that the following 11 multiplication questions (**and their commutative equivalents**) are more likely to be asked: –
- 6 x 6, 6 x 7, 6 x 8, 6 x 9, 6 x 12
- 7 x 8, 7 x 9, 7 x 12
- 8 x 9, 8 x 12
- 12 x 12
- Of course, not each set of questions will feature all of these facts, and other questions will be asked, but it is likely that a good proportion of the above will be present in each set of questions.
- Questions involving 2, 5 and 10 are least likely to be asked, with there only being a maximum of 8 (including the +/-1 parameter mentioned above) of these questions in each test.

Multiplication Tables Check Explained

What happens with the results?

- You will only access the result for each pupil at the end of the 3-week window. The child (or teacher) will not be shown the total score on screen. This means there will be a bit of a waiting game to find out how your children have done.
- The guidance is clear that there is no expected pass rate or threshold. This means that, unlike the KS1 Phonics Screening check, children will not be expected to re-sit the check if they do not meet a set threshold in this KS2 Times Tables Test.

BUT

- **National And Local Authority Results Will Also Be Published**

Why times tables?

Having a secure understanding of times table and division facts underpins:

- Formal written methods of multiplication and division.
- Multiples, factors, factor pairs, common factors, prime numbers.
- Square numbers, cube numbers.
- Multiply and divide by 10, 100 or 1000.
- Percentages.
- Conversion of measures.
- Multiply fractions, divide fractions, simplify fractions, add fractions, subtract fractions, compare and order fractions.
- Area, perimeter and volume.
- Ratio and proportion.
- Algebra.
- Mean (average).
- Estimation.
- Solve multistep problems.

Without the foundations the tower will collapse!

In 2018 Maths SATs, 62 marks involved the use of multiplication and division, this was 56% of the marks.

How are tables and division facts taught?

Conceptual understanding

If children are conceptually taught multiplication, and are supported to make, understand and use the relationships and links within multiplication, they will gain the ability to rapidly recall their multiplication facts, and will be able to use them to help them calculate in other areas of maths as well.

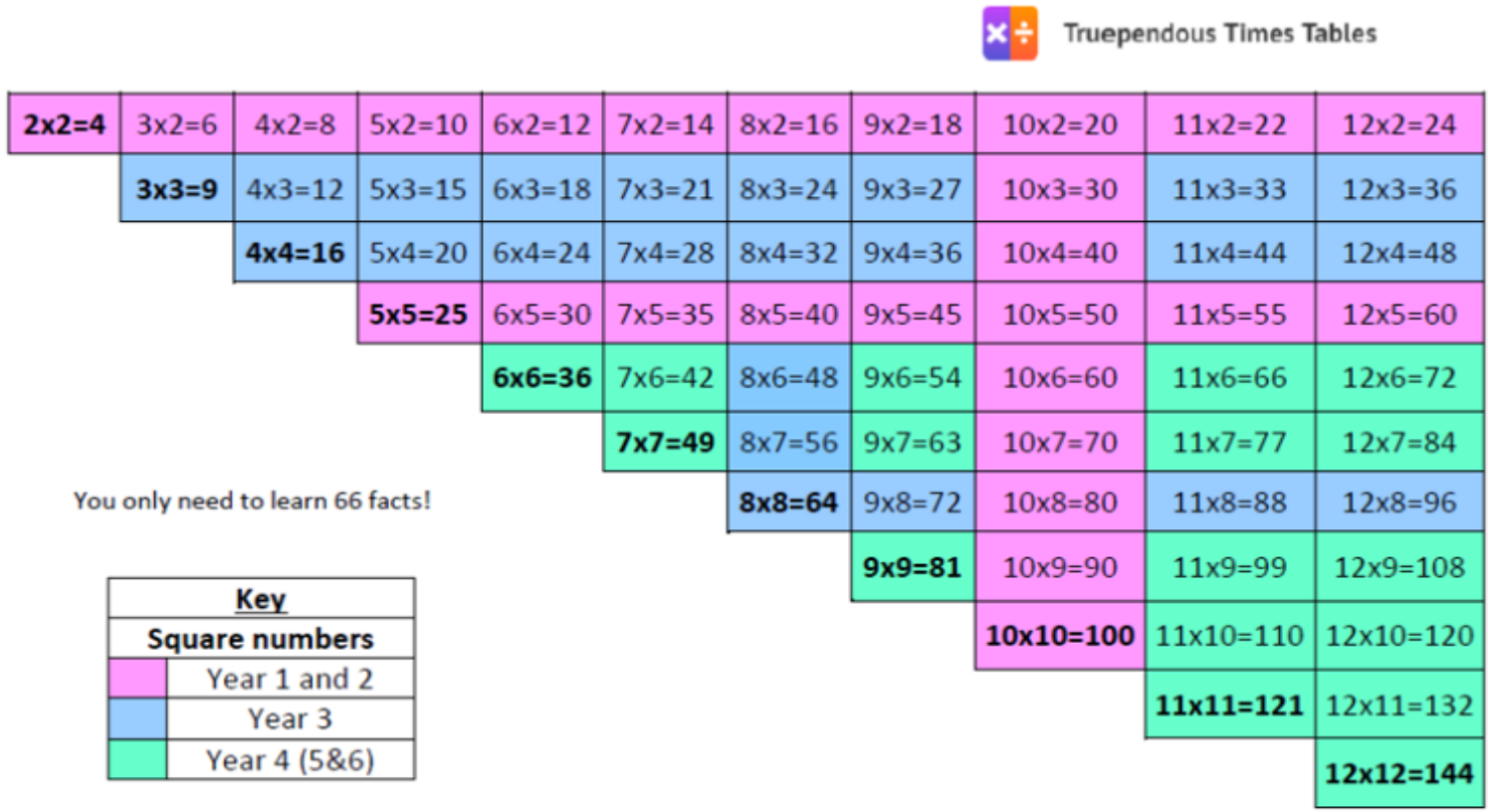
In lessons children will be taught

- Repeated addition
- Inverse relationships (Division)
- Number Families
- Patterns
- Derive Facts from those already known
- Commutative Law

  4 x5 = 20 = 5 x 4

Commutativity

This is a fantastic poster to show you don't need to know as many facts as you might first think! In fact, there are just 66 :)



Truependous Times Tables

7x2=	10x2=	4x2=	5x2=	12x2=	**2x2=**	8x2=	11x2=	3x2=	9x2=	6x2=
	5x3=	4x3=	**3x3=**	6x3=	12x3=	8x3=	11x3=	**10x10=**	9x3=	7x3=
		11x4=	5x4=	12x4=	7x4=	9x4=	8x4=	10x7=	**4x4=**	6x4=
			12x5=	6x5=	10x5=	8x5=	9x5=	7x5=	11x5=	**5x5=**
				7x6=	**6x6=**	**8x8=**	9x6=	10x6=	12x6=	11x6=
					9x7=	8x7=	**7x7=**	10x4=	12x7=	11x7=
						8x6=	11x8=	10x9=	9x8=	12x8=
							11x9=	10x8=	**9x9=**	12x9=
								10x3=	12x10=	11x10=
									12x11=	**11x11=**
										12x12=

You only need to learn 66 facts!

Key	
Square numbers	
	Year 1 and 2
	Year 3
	Year 4 (5&6)

Of course Practise makes Perfect!

- Counting
- Singing
- Chanting
- Speed Tests
- Board Games
- Card Games
- Times Table Tricks

Online

- TT Rockstars
- Hit the Button
- Topmarks
- Youtube songs
- MathsFrame – Times Tables check. (This mirrors the actual check)

Thank You for coming!