Multiplication Tables Check (MTC)

What is the MTC?

Since 2019/20 academic year onwards, all state-funded maintained schools and academies (including free schools) in England are required to administer the online MTC to year 4 pupils. The purpose of the MTC is to determine whether pupils can recall their times tables fluently, which is essential for future success in mathematics. It will help schools to identify pupils who have not yet mastered their times tables, so that additional support can be provided.

More parent information can be found on the Department of education website.

https://assets.publishing.service.gov.uk/media/6543c1ef9e05fd0014be7c64/2024_Information_for_parents_ Multiplication_tables_check_PDFA_v1.1.pdf

MTC Journey at St Cuthbert Mayne In 2019 between the 10th June - 28th June children took part in the MTC pilot.

In 2021 the school took part in a second trial after the pandemic.

In June 2022/3 Year 4 children took the MTC and results were reported to the Department of Education and parents/guardians.

Key Information

Statutory timed test for Year 4

Digital assessment - computers or tablets

25 questions, 6 seconds per question

Up to x12 _____ x ___ = _____

(no division, missing number questions)

Schools will have a 2-week check window, starting on Monday 3 June until Friday 14 June 24 to administer the test

Access arrangements can be made for individual children

Use of data

There is no official pass mark.

It includes statistics for pupils in schools in England:

at national level, broken down by the following pupil characteristics: gender, disadvantage, free school meal eligibility, ethnicity, special educational need status, first language and month of birth; at national level, broken down by the following school characteristics: school type, school phase and school religious character;

at regional and local authority level, broken down by gender.

How SCM uses data

See which children need further support in Year 5. We aim for a score of 20+

Try it out area

Prior to the mandatory check window, schools will be able to provide their pupils with access to a 'try it out area' to familiarise themselves with the system. This will be available from the 8th April 24. Schools and pupils can also use the 'try it out area' to apply any precessary accessibility features for pupils that may need them. Pupils should try these features out ahead of the check window they work for them.

X	0	1	2	3	4	5	6	7	8	9	10	11	12
0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	0	1	2	3	4	5	6	7	8	9	10	11	12
2	0	2	4	6	8	10	12	14	16	18	20	22	24
3	0	3	6	9	12	15	18	21	24	27	30	33	36
4	0	4	8	12	16	20	24	28	32	36	40	44	48
5	0	5	10	15	20	25	30	35	40	45	50	55	60
6	0	6	12	18	24	30	36	42	48	54	60	66	72
7	0	7	14	21	28	35	42	49	56	63	70	77	84
8	0	8	16	24	32	40	48	56	64	72	80	88	96
9	0	9	18	27	36	4 5	54	63	72	81	90	99	108
10	0	10	20	30	40	50	60	70	80	90	100	110	120
11	0	11	22	33	44	55	66	77	88	99	110	121	132
12	0	12	24	36	48	60	72	84	96	108	120	132	144

169 facts.

Major milestones

Year 1:

- · count in multiples of twos, fives and tens
- solve simple multiplication and division using objects, pictures and arrays with support Year 2:
- count in steps of 2, 3, 5 and 10
- recall and use multiplication and division facts for the 2, 5 and 10 multiplication tables

Year 3:

- count from 0 in multiples of 4, 8, 50 and 100
- recall and use multiplication and division facts for the 3, 4 and 8 multiplication tables Year 4:
- count in multiples of 6, 7, 9, 25 and 1000
- recall multiplication and division facts for multiplication tables up to 12 × 12

Commutativity

Х	0	1	2	3	4	5	6	- 7	8	9	10	11	12	
0	0	0	0	0	0	0	0	0	0	0	0	0	0	91 facts
1		1	2	3	4	5	6	7	8	9	10	11	12	
2			4	6	8	10	12	14	16	18	20	22	-24	
3				9	12	15	18	21	24	27	-30	- 33	-36	
4					16	20	24	28	32	36	40	44	48	
5						25	30	35	40	45	50	55	60	
6							36	42	48	54	60	66	72	
7								49	56	63	70	77	84	
8									64	72	80	88	96	
9										81	90	99	108	
10											100	110	120	
11												121	132	
12													144	



Zero facts

X	0	1	2	3	4	5	6	7	8	9	10	11	12	
0														78 facts
1		1	2	3	4	5	6	7	8	9	10	11	12	, 0 10000
2			4	6	8	10	12	14	16	18	20	22	24	
3				9	12	15	18	21	24	27	30	- 33	36	
4					16	20	24	28	-32	36	40	44	48	
5						25	30	35	40	45	50	55	60	
6							36	42	48	54	60	66	72	
7								49	56	63	70	77	84	
8									64	72	80	88	96	
9										81	90	99	108	
10											100	110	120	
11												121	132	
12													144	

X 1 facts

X	0	1	2	3	4	5	6	7	8	9	10	11	12	
0														66 facts
1														
2			4	6	8	10	12	14	16	18	20	22	24	
3				9	12	15	18	21	24	27	30	33	36	
4					16	20	24	28	32	36	40	44	48	
5						25	.30	35	40	45	50	55	60	
6							-36	42	48	54	60	66	72	
- 7								49	56	63	70	77	84	
8									64	72	80	88	96	
9										81	90	99	108	
10											100	11 0	120	
11												121	132	
12													144	

X 2 facts (doubling)

X	0	1	2	3	4	5	6	7	8	9	10	11	12	
0														55 facts
1														
2														
3				9	12	15	18	21	24	27	-30	-33	-36	
4					16	20	24	28	32	36	40	44	48	
5						25	30	35	40	45	50	55	60	
6							36	42	48	54	60	66	72	
- 7								49	56	63	70	77	84	
8									64	72	80	88	96	
9										81	90	99	108	
10											100	110	120	
11												121	132	
12													144	

X 10 facts

X	0	1	2	3	4	5	6	7	8	9	10	11	12	
0														45 facts
1														10 1000
2														
3				9	12	15	18	21	24	27		-33	- 36	
4					16	20	24	28	32	36		44	48	
5						25	- 30	35	40	45		55	60	
6							36	42	48	54		66	72	
7								49	56	63		77	84	
8									64	72		88	96	
9										81		99	108	
10														
11												121	132	
12													144	

Target zone – 45 facts

12x3=36	12x4=48	12x5=60	12x6=72	12x7=84	12×8=96	12×9=108	12×11=132	12x12=144
11x3=33	11x4=44	11x5=55	11x6=66	11x7=77	11×8=88	11x9=99	11x11=121	
9x3=27	9x4=36	9x5=45	9x6=54	9x7=63	9x8=72	9x9=81		
8x3=24	8x4=32	8x5=40	8x6=48	8x7=56	8x8=64		•	
7x3=21	7x4=28	7x5=35	7x6=42	7x7=49		•		
6x3=18	6x4=24	6x5=30	6x6=36					
5x3=15	5x4=20	5x5=25		•				
4x3 =12	4x4=16		-					
3x3 = 9								



https://mathsframe.co.uk/en/resources/resource/477



There are 24 dots.

4 × 6 = 24

6 × 4 = 24

What does the 4 represent? What does the 6 represent? What does the 24 represent?



https://mathsframe.co.uk/en/resource s/resource/477

How to use the multiplication checker

Change the difficulty - number of questions, time between questions and times tables View results and support learning times table your child is finding tricky Practise daily for 5 - 10 minutes

There are four groups of six; there are twenty four altogether.

There are six, four times; there are twenty four altogether.

Four is a factor.

Three is a factor.

The product of four and six is twenty four.

Twenty four is the product of four and six.



Learning the facts



- Start with 1 x ____
- Make the array
- Clarify 0 x ___ = 0
- Write the list
- Check it
- Create the cards
- Play with the cards

Counting stick – 3LS16

0, 4, 8, 12, 16, (hic!), 12, 16, 20, 24, (hic!), 20, 24, 28, 32, (hic!), 28...



Spot the swap stick

Circle the two numbers which have swapped.





How would you work this out? What do you know already?

Can you think of 2 ways to find set the answer?

6×6	36
7 × 6	
8×6	48

What patterns 🖟 can you notice in ∰the six times ∰table?	6 times table $1 \times 6 = 6$ $2 \times 6 = 12$ $3 \times 6 = 18$ $4 \times 6 = 24$ $5 \times 6 = 30$ $6 \times 6 = 36$ $7 \times 6 = 42$ $8 \times 6 = 48$ $9 \times 6 = 54$ $10 \times 6 = 60$ $11 \times 6 = 66$ $12 \times 6 = 72$ Timestables.co.uk
	Timestables.co.uk

1. The products are even

The products increase by six each time
The products are all part of the three times tables

4. If you add each digit of the products the answer is Eleither 3, 6 or 9

Patterns in the tables



Pros	Cons

0 × 3 = 0	$0 \times 6 = 0$
1 × 3 = 3	1 × 6 = 6
2 × 3 = 6	2 × 6 = 12
3 × 3 = 9	3 × 6 = 18
4 × 3 = 12	4 × 6 = 24
5 × 3 = 15	5 × 6 = 30
6 × 3 = 18	6 × 6 = 36
7 × 3 = 21	7 × 6 = 42
8 × 3 = 24	8 × 6 = 48
9 × 3 = 27	9 × 6 = 54
10 × 3 = 30	10 × 6 = 60
11 × 3 = 33	11 × 6 = 66
12 × 3 = 36	12 × 6 = 72

What is the sepsame?

What is stepdifferent?

Seven times table hack

012	<mark>0</mark> 7	14	21
234	28	<mark>35</mark>	42
456	<mark>4</mark> 9	<mark>56</mark>	<mark>63</mark>

Nifty nines



Doubling and halving (x2, x4, x8) (x3 to x6)Commutativity (5 x 8 = 8 x 5)Near 2s, 5s and 10s - WIK (What I Know) Songs/rhymes/chants

(Percy Parker)

https://ttrockstars.com/



February - 10 minutes a week in the Garage. If they're on Auto, where should aim to have passed level 308 by the end of the month. We Focusing on the 7s and 8s.

March - 15 minutes a week in Garage. If they're on Auto, they should aim to have passed level 365 by the end of the month. Focusing on the 9s.

April - 15 games a week in Garage. If they're on Auto, they should \mathbb{R} aim to have passed level 420 by the end of the month. Focusing on \mathbb{R} the 11s and 12s.

May - 10 minutes a week in Studio and 5 minutes a week in SepSoundcheck, which is our simulator for the MTC.

June - 3 games per day in Soundcheck.

In school we are ...

Practising times tables daily - on devices and paper versions Organising times table interventions from assessment data Teaching times tables lessons Keeping times tables high profile in the classroom Using resources to teach times tables - bead strings, unifix cubes, games Setting times table homework At home you can help by ... Practising times tables daily - **5 -10 minutes everyday will have a huge impact** Help practise a times table your child is confident at along with a times table they are learning. Use the multiplication checker to build confidence and fluency. Use formal and informal ways to practise



https://mathsframe.co.uk/en/resources/resource/477