Y4 Multiplication Tables Check

Information Session for Parent & Carers

18TH JANUARY 2024

Session Aims:

1. To know the National Curriculum expectations for learning times tables.

2.. To know what the Statutory Multiplication Tables Check is in Year 4.

3. To understand in what ways you can help children learn times tables at home.

Why do you think it is important to learn times tables facts?

Three Reasons why times tables skills need to be prioritised in Primary schools

1. Times tables are fundamental to many maths topics

Fractions is the most obvious area where learning times tables well is essential. However, every short multiplication and long multiplication method and short division and long division method require speed and instant recall of times tables while at primary school. Times Tables are central to KS2 Maths and need to be embedded by Year 4 in order that pupils can then start practising for the next two years.

2. Freeing up working memory allows pupils to develop their reasoning skills

There are certain mental maths facts and operations children need to be able to carry out quickly and with a degree of automaticity in order to free up their working memory for newer, more challenging tasks at hand.

If we can ensure the transition of times tables facts to children's long term memory and times tables can become an instantly recallable fact the working memory can be freed up for reasoning.

3. Multiplication and division feature very highly in the KS2 SATs reasoning papers

Many of the end of Year 6 maths reasoning questions in the KS2 SATs seem to necessitate the use of multiplication facts and related division facts by the children in order for them to simplify complex questions.

National Curriculum Expectation

Year 1	Count in multiples of 2, 5 and 10.
Year 2	Count in steps of 2, 3 and 5 from 0. 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.
Year 4	Count in multiples of 6, 7, 9, 25 and 1000. Recall and use multiplication and division facts up to 12 × 12
Years 5 & 6	Revision of all times tables and division facts up to 12 x 12.

National Curriculum, (2013)

In 2014 the Minister of State for Schools, Nick Gibbs suggested…

Pupils should know their tables up to 12 x 12 by heart two years before completing primary education, said Nick Gibb.

He said "early memorisation" of the multiplication tables was vital to ensure pupils developed a fluency in the maths before tackling more complex subjects at a later stage.

In 2020, the Department for Education announced the introduction of Year 4 Statutory times tables test from 2020, the Multiplications Tables Check.

Multiplication Tables Check

National curriculum assessments

Key stage 2

Multiplication tables check assessment framework

In 2020, the Department for Education announced the introduction of Year 4 Statutory times tables test from 2020, the Multiplications Tables Check.

The stated purpose of the multiplication tables check (MTC) is to determine whether year 4 pupils can fluently recall their multiplication tables.

What Multiplications Tables Are Pupils in Year 4 Expected to Know?

Under the current National Curriculum…

The Year 4 programme of study for mathematics states, 'pupils should be taught to recall multiplication and division facts for multiplication tables up to 12 × 12'.

Primary children are required to learn their times tables up to 12 x 12 by the end of Year 4, and in preparation for the MTC test. The MTC test assesses the instant recall of multiplication facts.

Please watch a short DFE Video for more info.

https://www.youtube.com/watch?v=GhAJMJUsAac&feature=youtu.be

Do all pupils in the UK need to take the MTC?

It was administered as a voluntary pilot check for children in Year 4, in the 2019-2020 academic year and since the 2019/20 academic year, all state-funded maintained schools and academies (including free schools) in England are required to administer the MTC to Year 4 pupils.

What if a child has special educational needs?

Children with special educational needs will be provided for when taking the MTC e.g., extra time, an adult to read out the question, an enlarged screen, etc.

Some children will be eligible for specific arrangements:
● Colour contrast;
● Font size adjustment;
● 'Next' button (alternative to 3-second pause);
● Removing on-screen number pad;
● An adult to input answers;
● Audio version;
● Audible time alert.

FOR
EVERY
CHILD'S
BRIGHT
FUTURE

When will the Multiplication Tables Check be administered?

Year 4 will have their multiplication skills formally tested in the Summer Term of this academic year 2023-2024. The 2 week window to administer the MTC will be between Monday 3rd June – Friday 14th June 2024.

Teachers will have the flexibility to administer the check to individual pupils, small groups or a whole class at the same time.
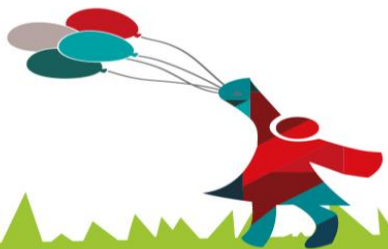
How will the test be carried out?

- The check will be fully digital.
- Answers will be entered using a keyboard, by pressing digits using a mouse or using an onscreen number pad.
- Usually, the check will take less than 5 minutes for each child.
- The children will have 6 seconds from the time the question appears to input their answer.
- There will be a total of 25 questions with a 3 second pause in-between questions.
- There will be 3 practice questions before the check begins

Children will be given the opportunity to practise answering questions in this format before the official check begins.

The test will last no longer than 5 minutes and is similar to other tests such as the 'Soundcheck' already used in TT Rockstar.

The check Questions

- Each child will be randomly assigned a set of questions
- There will only be multiplication questions in the check, not division facts.
- The 6, 7, 8, 9 and 12 times tables are more likely to be asked.
- Reversal of questions (e.g. 8 x 6 and 6 x 8) will not be asked in the same check.
- Children will not see their individual results when they complete the check.

Which times tables are expected to be tested the most?

Questions will be selected from the 121 number facts that make up the multiplication tables from 2 to 12, with a particular focus on the 6, 7, 8, 9 and 12 times tables as they are considered to be the most challenging.

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

Is there a pass mark for the test?

At present the DfE have not issued an official "pass mark".

Schools will only be given the percentage of pupils scoring 25/25 marks.

As a school we are aiming for a score between 23 -25.

So, how do we support pupils to learn their times tables?

Ways we support pupils to learn their times tables facts?

1. Know in which ways pupils learn multiplication facts best.

2. Provide opportunities for retrieval practice.

3. Have a whole school approach – progression planner

4. Recognise pupils achievement and keep them motivated.

5. Work in partnership with parents.

Recognising Achievements

Currently in Place

TT Rockstar Display to celebrate Rock Status and Speed

- 0-0.4 SECONDS = PLATINUM (ROCK ICON)
- 0.5-1.5 SECONDS= GOLD (ROCK GOD)
- 1.6-2.5 SECONDS = SILVER (ROCK LEGEND)
- 2.6-3.5 SECONDS = BRONZE (ROCK STAR)
- 3.6-4.5 SECONDS = PURPLE (BAND MEMBER)
- 4.6 + SECONDS = RED (NUMBER ONE FAN

Ways you can support times tables Knowledge

- Count and look for patterns.
- Understand that multiplication is repeated addition.
- Remember that multiplication is commutative. (4 x 8 = 8 x 4)
- Remember that multiplication is the inverse of division.
- Recall and utilise number families. (6, 7, 42   6 x 7 = 42   7 x 6 = 42   42 / 7 = 6   42 / 6 = 7)
- Learn tricks such as 5,6,7,8 for remembering 7 x 8 and 8 x 7   = 56

Use different representations to represent multiplication, such as:
- Concrete manipulatives suck as multilink cubes or counters.
- Create pictorial representations such as arrays.

Counting & looking for patterns

Example: Counting in 2s
2, 4, 6, 8, 10...

- Ensure children have a strong understanding of counting in groups first.
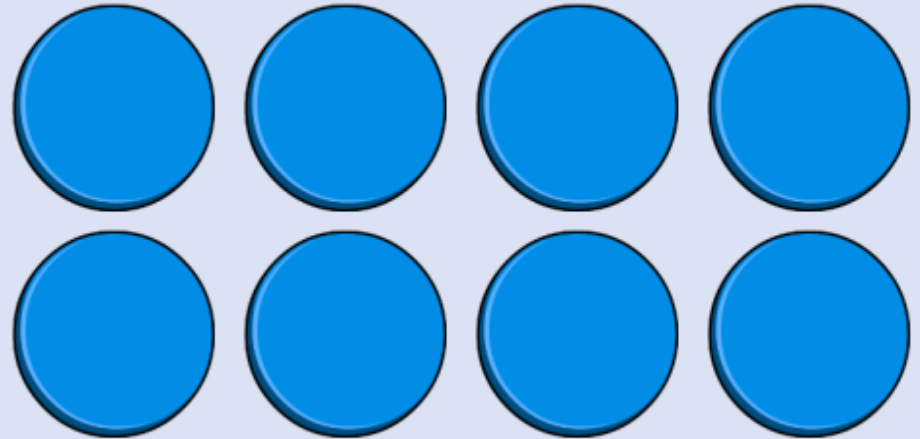- When children are secure with counting, they can then look for patterns.

Repeated addition

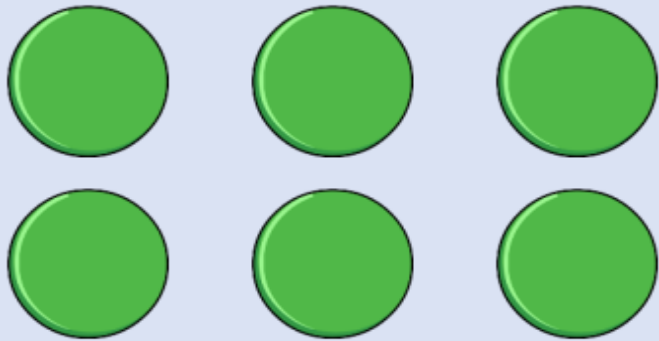Knowing that 2 x 4 is the same as 2 + 2 + 2 + 2
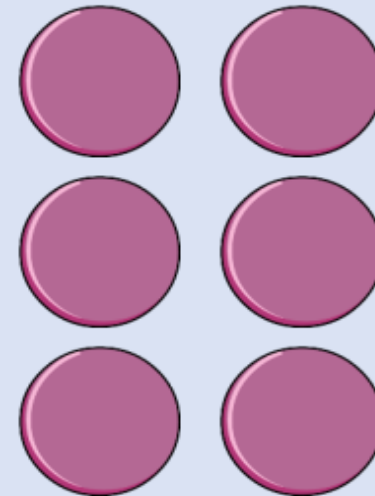
2 + 2 + 2 + 2 = ?

2 x 4 = ?

Multiplication is commutive

3 x 2 is the same as 2 x 3

Children need to understand that multiplication can be completed in any order to produce the same answer. Sometimes this link needs to be made explicit.
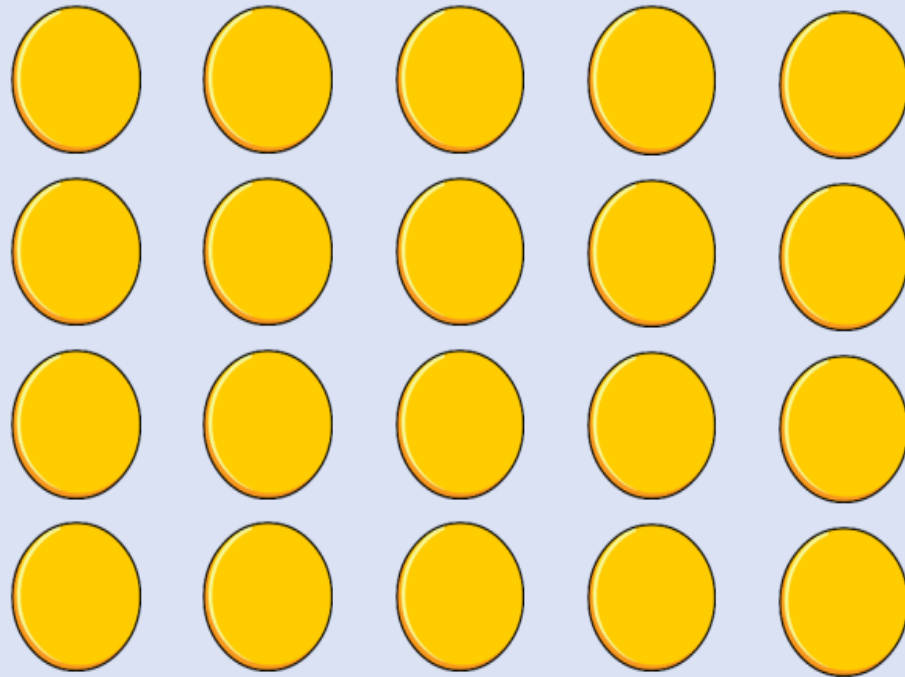
3 lots of 2 = 6

2 lots of 3 = 6

Multiplication is the inverse of division

20 ÷ 5 = 4 can be worked out because 5 x 4 = 20

Using pictorial representations (such as arrays) is useful here for children to see the link between multiplication and division.

Fact families

$4 \times 5 = 20$, $5 \times 4 = 20$, $20 \div 5 = 4$, $20 \div 4 = 5$

Due to their commutative understanding, children should also be able to see whole number families. For many children this will need to be pointed out and discussed.
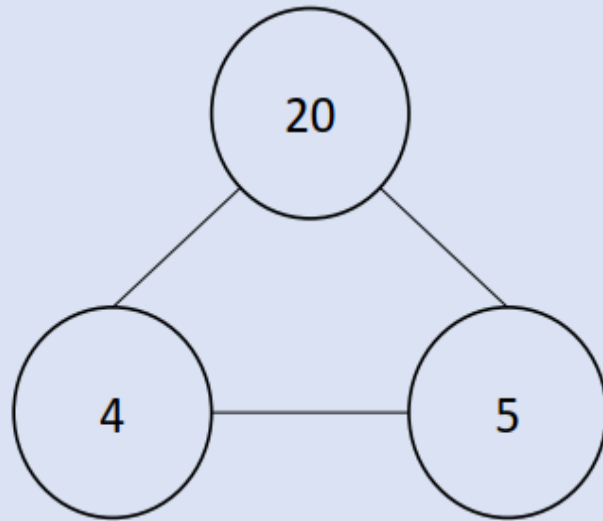
Known facts

12 x 6 = ?
I know 11 x 6 = 66
Therefore, 66 + 6 = 72

By using known facts from 'easier' times tables, children should be able to find answers with increasing speed.

36 Essential Facts

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

36 facts

https://player.vimeo.com/video/810044805?quality=720p

How to best prepare your child

- Remind them that the check should last no more than 5 minutes.

- If you want to go over times tables, make them fun.

- If you have any concerns, talk to your child's teacher.

- If your child has any concerns, encourage them to talk to a trusted adult (for example, yourself, their teacher).

- If you're looking to support your child further with maths at home, there are lots of good websites with free resources e.g.

- MTC Test – URBrainy

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

- Children can also continue to use Times Table Rockstars to help with this.

Thank you for coming!

Please take a leaflet on your way out