

**Multiplication Tables Check**  
**Assessment Framework**



On Tuesday 13th November 2018, the Multiplication Tables Check Assessment Framework was published by the Standards and Testing Agency (STA). The aim of the framework document is to provide guidance to the test developers to help them develop fair and robust tests, but it also provides an excellent guide to what schools and teachers will be expected to have taught their pupils when the first Year 4 Times Tables Test KS2 comes in 2020.

Here are the top line questions about the Year 4 Times Tables Test – or, as it's officially known, the Multiplication Tables Check – you need the answer to straightaway.

## **What is the purpose of the multiplication tables check?**

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.

## **Who Will Take the Multiplication Tables Check**

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.

## **When Does The Multiplication Tables Check Start**

The Multiplication Tables Check will be available as a voluntary check in the 2018/19 academic year. Schools can decide whether they wish to participate. Subject to approval from Parliament, the MTC will be statutory from the 2019/20 academic year so it won't affect your current Year 4s.

And now, let's get into the detail with the 22 key facts for teachers and school leaders which we have gleaned from the new Multiplication Tables Check Assessment Framework. Some of them may surprise you!

## **1: The Times Tables Check Does Not Have To Be Completed Until June 2020**

Assuming it gets parliamentary approval, the check will not be statutory until June 2020.

This means that your current Year 4 pupils do not have to complete the check, but that your current Year 3 pupils will have to complete the check.

It is therefore important to ensure that your Year 3s develop fluency in their multiplication facts this year. Remember, the curriculum suggests that by the end of Year 3, children should be [fluent in the 2, 3, 4, 5, 8, 10 times tables](#).

BUT

## **2: Schools Are Able To Voluntarily Administer The Check In June 2019**

In the assessment briefing that published the test framework, it was clarified that schools can choose to administer the check in June 2019. This voluntary check will take place between 10-28 June 2019.

If schools are wanting to take part in the check, they will need to check their pupil registration data is correct on NCA tools when the multiplication check area opens on 1st April 2019.

Whilst it is voluntarily, we would advise that schools do take part in the voluntary multiplication tables check in 2019. This will enable you to see the format of the check and assess any accessibility features pupil may need to shore up work.

This will enable you to be better prepared for the statutory roll out in 2020. The results of the voluntary check will not be reported through Analyse School Performance (ASP), but you will be able to access pupil level scores on NCA tools (more information on this below!)

### **3: It Will Only Present Children With Multiplication Statements Not Division**

It's been confirmed that Year 4 children will only face multiplication statements in the check. This means that related division facts, whilst a key part of children's mathematical learning, will not be tested as part of the check.

Some maths experts are already saying that this removes any benefit (of which there was already very little) of the check.

### **4: The Times Tables Check Is Online And On-Screen**

It's been confirmed that test will be fully digital and take place on screen. It will be available to use on laptops, desktops and tablets.

The STA will publish full guidance for your IT administrators before April 2019, but it is expected that most equipment that has access to a web-browser should work with the check.

### **5: The Check Will Take Place In June Each Year**

The framework clarifies that there will be 3-week window in June for the administration of the check. There is no set test day, nor an expectation that all children will take the check at the same time.

### **6: Children Can Practise Before Taking The Check**

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.

It'll be important for schools to ensure they build in time for this familiarisation, so the check style is not 'new' when children take the actual check. This ties back in with our recommendation to access the check voluntarily in June 2019.

This practice area may not be a suite of full tests, and that 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.

### **7: It'll Take Less Than 5 Minutes Per Pupil**

Under standard administration (i.e. without any access arrangements) the multiplication check will take less than 5 minutes per pupil. There is no requirement for all children in a class to take the check all at once.

### **8: Children Will Have 6 Seconds To Answer Each Question.**

Children will get 6 seconds from the time the question appears to input their answer. This means that children must be able to read, recall and enter their response within 6 seconds.

Children will enter their answer using a keyboard or by pressing digits using a mouse or touchscreen on an on-screen number pad.

This means that it is vital that schools are ensuring children are able to rapidly recall multiplication facts, and can do so 'out of sequence' (i.e. answer  $6 \times 7$  without having to count in 6's from 0).

Whilst it may be tempting for schools to resort to 'rote learning' for the multiplication tables, it is important that this is avoided, as it leads to children simply being able to chant facts without any meaning, and reduces their ability to recall facts out of sequence. **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.

As the facts have to be read by the child (rather than being read to them), it is also important that children are used to answering multiplication questions in a written format, rather than only answering questions when they are read out to them.

## **9: Whatever Is In The Answer Box At The End Of The 6 Seconds Will Be Counted As The Answer**

This means that if a child is mid-way into entering a two digit answer (e.g. they only enter the 7 out of 72 when answering  $8 \times 9$ ) they will be recorded as having answered  $8 \times 9$  as 7.

## **10: Children Will Face 25 Questions**

Children will be presented with 25 questions. There will be a 3 second pause in-between each question, before the next question appears on screen. It is therefore important that children have been used to answering (at least) 25 questions in quick succession before they face the test.

Each child will be randomly assigned a set of questions, which the STA refer to as a 'form'. This is the spread of questions.

There will be repeated questions across different sets of questions each year, but no more than 30% of the questions will be the same in any two sets of questions. This means if the test gets interrupted and children need to re-start it, they will only have a minimal advantage.

## **11: 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  $1 \times 8$  or  $8 \times 1$ )
- 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,  $8 \times 3$  and  $3 \times 8$  won't be asked to the same pupil.

The full breakdown of questions can be found in the table below:

### 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

### **12: 6 x 3 Is '6, Three Times'**

The STA state that they are classifying the multiplication tables by the first number in the question. For example,  $8 \times 3$  would fall within the 8 times table.

This reflects what is now considered to be best practice – for example, that  $8 \times 3$  should be thought of as 8, three times rather than 8 lots of 3.

### **13: Remember, Commutativity Is Really Important**

Of course, it is important that children understand the commutative property of multiplication, and that  $8 \times 3$  (8, three times) is the same as  $3 \times 8$  (3, eight times.)

Therefore, if children have made this conceptual connection, it effectively reduces the number of unique facts children need to remember, and helps children answer questions such as  $8 \times 4$ , which if taken as an 8 times table question may cause more panic than  $4 \times 8$ .

### **14: 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: –

- $6 \times 6$ ,  $6 \times 7$ ,  $6 \times 8$ ,  $6 \times 9$ ,  $6 \times 12$
- $7 \times 8$ ,  $7 \times 9$ ,  $7 \times 12$
- $8 \times 9$ ,  $8 \times 12$
- $12 \times 12$

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.

## **15: (Nearly) All Year 4 Children In England Need To Take The Check From 2020**

After approval from parliament, the multiplication tables check will be statutory from the 2019/20 academic year. Once it has become statutory all children in Year 4 who are registered at maintained schools or academies in England will need to take the check.

This includes free schools, academies and special schools.

## **16: Some Children Can Be Withdrawn From The Assessment**

It will be possible to withdraw certain children from the assessment.

Full details about the grounds for withdrawing pupils will be made available in the 2019/20 Assessment and Reporting Arrangements (ARA) which will be published in October 2019.

However, expect the grounds for withdrawal to be stricter than grounds for withdrawing from the SATs tests.

## **17: Strictly Speaking, The Check Should Not Be Used As A Diagnostic Tool**

The STA are clear that the check has not been developed for schools to use a diagnostic tool. However, of course, schools can use the check to help identify KS2 pupils who require additional support.

As it has not been designed as a diagnostic tool, it means that there may be gaps in children's understanding and knowledge of multiplication that is not picked up by the check.

## **18: Results Will Only Be Available At The End Of The 3-Week Window**

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.

## **19: There Is No 'Pass' Rate Or Threshold**

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...

## **20: National And Local Authority Results Will Also Be Published**

From 2020, the DfE will report on the performance of pupils in the check nationally and in each local authority. There is no guidance at this point as to what form these reports will take, but we can infer from the test framework that is likely to include the percentage of children who achieve full marks.

Through Analyse School Performance (ASP) schools are also likely to be able to see the percentage of children in their cohort who achieved each score compared to the percentage of children nationally.

The STA state that this national and local authority data will enable schools to benchmark the performance of their pupils, but it will not form a formal pass mark.

## **21: Results Will Not Be Published In Performance Tables**

The document clarified that results of the check will not be published in the publicly accessible school performance tables. We also know from previous information released about the test that there are no current plans to use the results from the multiplication check in judging if schools meet the 'floor standard'.

BUT...

## **22: Results Will Be Reported And Analysed- Including By OfSTED**

From 2020, school and individual pupil-level reports will be made available to schools- in a similar way to the results from the KS1 Phonics Check are reported. This will mean that schools can target support and intervention where needed.

It is also important to note that the results will also be available to OfSTED and local authorities through ASP (analyse school performance), so it is likely that schools will face questions about the Multiplication check during an OfSTED inspection.