



# **Multiplication tables check:**

# Presentation for Parents

## What is the purpose of the Multiplication Tables Check?

- To determine whether Year 4 pupils can fluently recall their multiplication tables.
- To help schools to identify pupils who require additional support.
- There is no 'pass' rate or threshold - expected to achieve **100%**.
- The DfE will create a report on overall results across all schools in England.

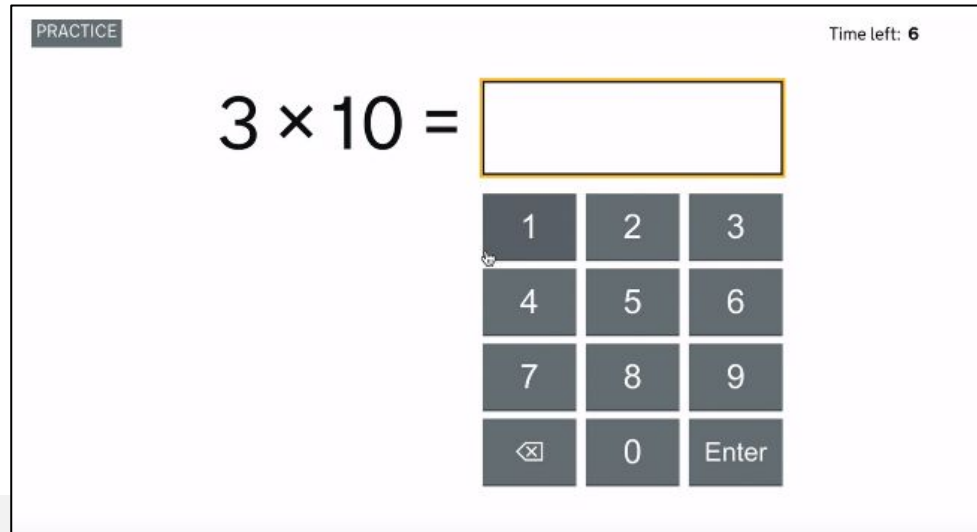
## When the Multiplication Tables Check will be carried out

- There will be **2-week window in June** for the administration of the check.
- There is **no set day** to administer the check.
- Children are not expected to take the check at the same time.
- All eligible\* Year 4 pupils England will be required to take the check.

*\*If a pupil is not entered for the check, the school should inform the pupil's parents.*

## How the Multiplication Tables Check is carried out

- The check will be **fully digital** and take place on screen.
- Children will be able to use laptops, desktops and tablets.
- Answers will be entered using a keyboard or by pressing digits using a mouse or touchscreen using an on-screen number pad.



A screenshot of a digital practice interface. In the top left corner, the word "PRACTICE" is displayed in a small grey box. In the top right corner, the text "Time left: 6" is shown. The main area of the screen displays the multiplication problem  $3 \times 10 =$  followed by a large, empty rectangular input box with a yellow border. Below the input box is a 4x3 grid of dark grey buttons with white text. The buttons are arranged as follows: the first row contains "1", "2", and "3"; the second row contains "4", "5", and "6"; the third row contains "7", "8", and "9"; and the fourth row contains a backspace icon (a square with an 'x'), "0", and "Enter". A mouse cursor is positioned over the "1" button.

## How the Multiplication Tables Check is carried out

- The multiplication check will take **less than 5 minutes per pupil**.
- Children will get **6 seconds** from the time the question appears to input their answer.
- There will be **25 questions** with a 3 second pause in-between questions.

**\*\*The check will only focus on recall of times tables facts\*\***

It does not reflect their understanding of wider mathematical topics.

## **Specific arrangements for Multiplication Tables Check**

Children with additional needs, who have similar provision in their day-to-day learning at school, may be allotted specific arrangements, including:

- Colour contrast;
- Font size adjustment;
- 'Next' button (alternative to 3-second pause);
- Removing on-screen number pad;
- An adult to input answers;
- Question reader;
- Audible time alert.

## The questions

- Each pupil will be **randomly assigned** a set of questions.
- There will be repeated questions across different checks each year, but no more than 30% of questions will be repeated in any two checks.
- Children will only have **multiplication questions** in the check (not related division facts).
- Pupils will not see their individual results when they complete the check.

## During the check

- There will always be questions from the 3, 4, 5, 6, 7, 8, 9, 11 and 12 multiplication tables in each check.
- There will be no questions from the 1 times table (i.e 1 x 8 or 8 x 1).
- The 6, 7, 8, 9 and 12 times tables are more likely to be asked.
- There will only be a maximum of 7 questions from the 2, 5 and 10 times tables.
- Reversal of questions will not feature in the same check.

e.g.  $6 \times 9 =$      $9 \times 6 =$

## Multiplication table limits

The STA (Standards & Testing Agency) 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.

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

## Questions most likely to appear

The following 11 multiplication questions are most likely to be included in the check:

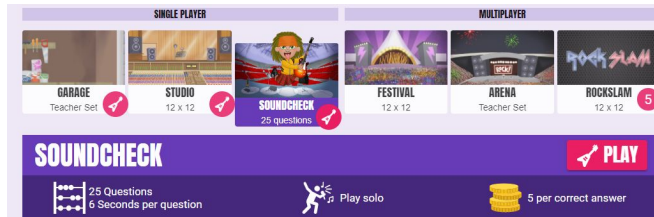
- $6 \times 6$ ,  $6 \times 7$ ,  $6 \times 8$ ,  $6 \times 9$ ,  $6 \times 12$
- $7 \times 8$ ,  $7 \times 9$ ,  $7 \times 12$
- $8 \times 9$ ,  $8 \times 12$
- $12 \times 12$

## Before the check

There will be a 'try it out' area the children can use to become familiar with the timings and layout of the check.

## TTRS Soundcheck

<https://www.timestables.co.uk/multiplication-tables-check/>



## How we teach times tables so pupils learn instant recall

Use of different representations to build the tables

- Concrete manipulatives such as counters, cubes, Numicon
- Pictorial representations such as arrays
- Looking at patterns/ links between tables

Numberlink board



Build the table using related facts

1 x 10x 5x (half of 10x)

2x 4x (double 2x) 8x (double 4x)

3x 6x (double 3x)

7x

9x

$$1 \times 7 = 7$$

$$2 \times 7 = 14$$

$$3 \times 7 = 21$$

$$4 \times 7 = 28$$

$$5 \times 7 = 35$$

$$6 \times 7 = 42$$

$$7 \times 7 = 49$$

$$8 \times 7 = 56$$

$$9 \times 7 = 63$$

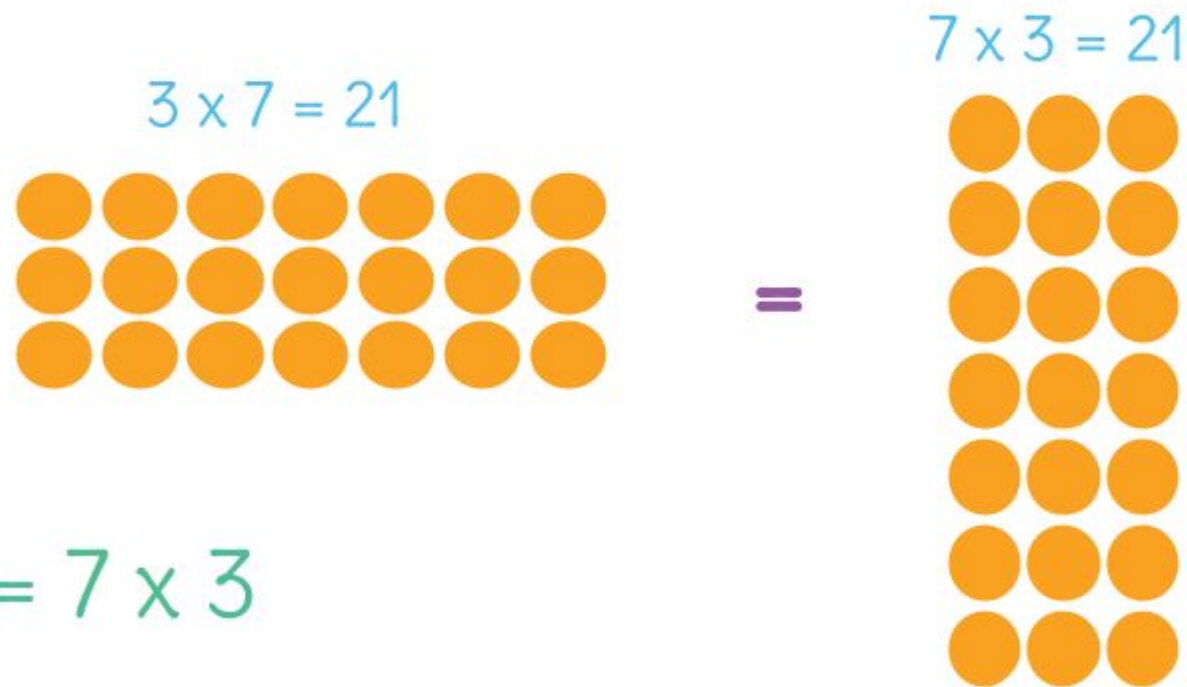
$$10 \times 7 = 70$$

$$11 \times 7 = 77$$

$$12 \times 7 = 84$$

## Multiplication is commutative

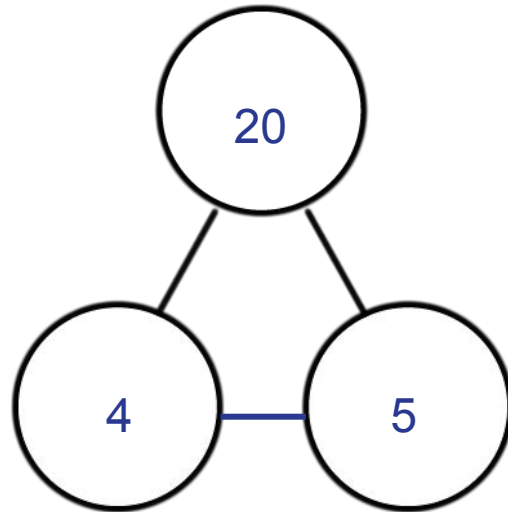
Children need to understand that multiplication can be completed in any order to produce the same answer.



## Number 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 derive related facts



## Using known facts

$$7 \times 12 = ?$$

I know  $7 \times 11 = 77$

Therefore,  $7 \times 12 = 84$

Or

I know  $7 \times 10 = 70$

$$7 \times 2 = 14$$

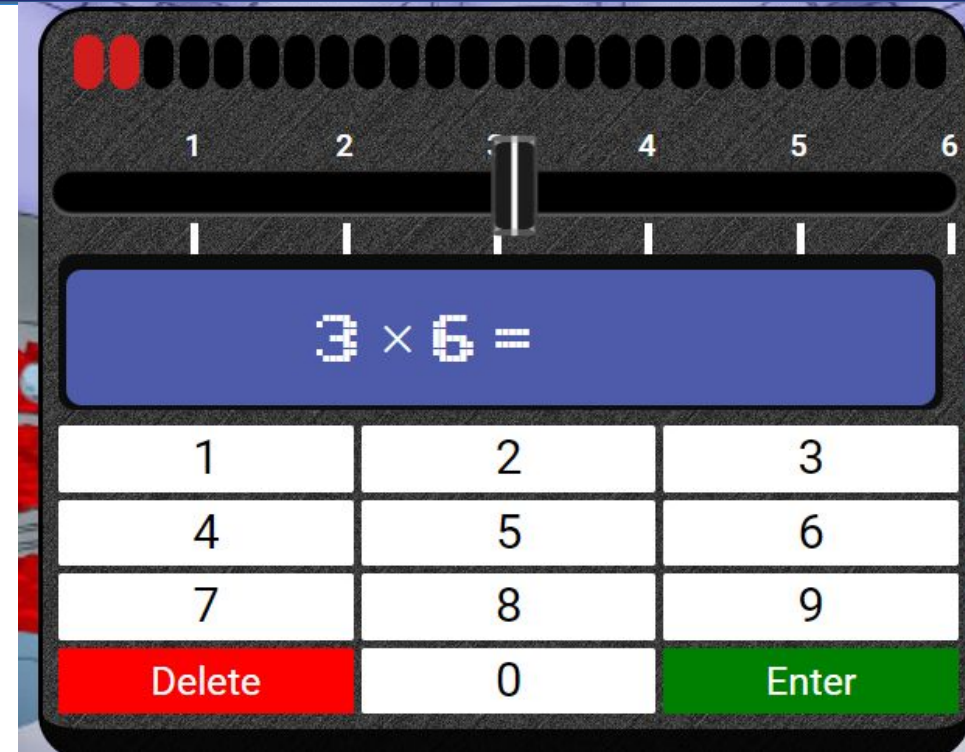
By using known facts from 'easier' times tables, children should be able to find answers with increasing speed.

## Example multiplication table check

TTRS Soundcheck

<https://play.ttrockstars.com/>

<https://www.timestables.co.uk/multiplication-tables-check/>



## How can I support my child with learning their times tables?

Make times tables fun!

- Climb stairs using skip counting (4,8,12,16,20,...)
- Times tables charts
- Listen to and learn times tables songs
- Times Tables Rock Stars

Garage & Studio – up to 12x12 – builds up recall of facts and speed  
Soundcheck

- <https://www.timestables.co.uk>  
5 step plan to build times tables knowledge



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$$\begin{array}{l} 1 \times 7 = 7 \\ 2 \times 7 = 14 \\ 3 \times 7 = 21 \\ 4 \times 7 = 28 \\ 5 \times 7 = 35 \\ 6 \times 7 = 42 \\ 7 \times 7 = 49 \\ 8 \times 7 = 56 \\ 9 \times 7 = 63 \\ 10 \times 7 = 70 \\ 11 \times 7 = 77 \\ 12 \times 7 = 84 \end{array}$$

September  
response  
time:  
6.5 seconds  
per question

	10	2	5	3	4	8	6	7	9	11	12
10	10 × 10	10 × 2	10 × 5	10 × 3	10 × 4	10 × 8	10 × 6	10 × 7	10 × 9	10 × 11	10 × 12
2	2 × 10	2 × 2	2 × 5	2 × 3	2 × 4	2 × 8	2 × 6	2 × 7	2 × 9	2 × 11	2 × 12
5	5 × 10	5 × 2	5 × 5	5 × 3	5 × 4	5 × 8	5 × 6	5 × 7	5 × 9	5 × 11	5 × 12
3	3 × 10	3 × 2	3 × 5	3 × 3	3 × 4	3 × 8	3 × 6	3 × 7	3 × 9	3 × 11	3 × 12
4	4 × 10	4 × 2	4 × 5	4 × 3	4 × 4	4 × 8	4 × 6	4 × 7	4 × 9	4 × 11	4 × 12
8	8 × 10	8 × 2	8 × 5	8 × 3	8 × 4	8 × 8	8 × 6	8 × 7	8 × 9	8 × 11	8 × 12
6	6 × 10	6 × 2	6 × 5	6 × 3	6 × 4	6 × 8	6 × 6	6 × 7	6 × 9	6 × 11	6 × 12
7	7 × 10	7 × 2	7 × 5	7 × 3	7 × 4	7 × 8	7 × 6	7 × 7	7 × 9	7 × 11	7 × 12
9	9 × 10	9 × 2	9 × 5	9 × 3	9 × 4	9 × 8	9 × 6	9 × 7	9 × 9	9 × 11	9 × 12
11	11 × 10	11 × 2	11 × 5	11 × 3	11 × 4	11 × 8	11 × 6	11 × 7	11 × 9	11 × 11	11 × 12
12	12 × 10	12 × 2	12 × 5	12 × 3	12 × 4	12 × 8	12 × 6	12 × 7	12 × 9	12 × 11	12 × 12

Current  
response  
time:  
5 seconds  
per question

	10	2	5	3	4	8	6	7	9	11	12
10	10 × 10	10 × 2	10 × 5	10 × 3	10 × 4	10 × 8	10 × 6	10 × 7	10 × 9	10 × 11	10 × 12
2	2 × 10	2 × 2	2 × 5	2 × 3	2 × 4	2 × 8	2 × 6	2 × 7	2 × 9	2 × 11	2 × 12
5	5 × 10	5 × 2	5 × 5	5 × 3	5 × 4	5 × 8	5 × 6	5 × 7	5 × 9	5 × 11	5 × 12
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8	8 × 10	8 × 2	8 × 5	8 × 3	8 × 4	8 × 8	8 × 6	8 × 7	8 × 9	8 × 11	8 × 12
6	6 × 10	6 × 2	6 × 5	6 × 3	6 × 4	6 × 8	6 × 6	6 × 7	6 × 9	6 × 11	6 × 12
7	7 × 10	7 × 2	7 × 5	7 × 3	7 × 4	7 × 8	7 × 6	7 × 7	7 × 9	7 × 11	7 × 12
9	9 × 10	9 × 2	9 × 5	9 × 3	9 × 4	9 × 8	9 × 6	9 × 7	9 × 9	9 × 11	9 × 12
11	11 × 10	11 × 2	11 × 5	11 × 3	11 × 4	11 × 8	11 × 6	11 × 7	11 × 9	11 × 11	11 × 12
12	12 × 10	12 × 2	12 × 5	12 × 3	12 × 4	12 × 8	12 × 6	12 × 7	12 × 9	12 × 11	12 × 12



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Any questions?

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