



# **Year 4 Multiplication Tables and the Multiplication Tables Check**

## **Briefing for Parents and Carers**



# What we'll cover...

- 1. Introduction**
- 2. What do we mean by Multiplication Tables?**
- 3. Why do we learn Multiplication Tables?**
- 4. The Multiplication Tables Check (MTC)**
- 5. How we can support children to learn their tables**

## What do we mean by Multiplication Tables?

- Multiplication facts
- 1 x 1 up to 12 x 12
- Linked division facts and associated facts
- 'Instant' recall – FLUENCY!

## Why do we learn Multiplication Tables?

- Multiplication facts underpin a lot of maths knowledge:
  - Division
  - Fractions
  - Percentages
  - Multiplication
  - Number sequences
  - Many more!
- All these areas when linked to problem solving
- Expectations (x and  $\div$ ) from Y1 – 4 in the National Curriculum

## The multiplication tables check?



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## 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.
- Not statutory this year but we are using it as one small part of our assessment
- In future years, the DfE will create a report on overall results across all schools in England to measure improvements.
- All our year 4 pupils England will take the check in June. There is no set day or time.

## 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.
- For most pupils, 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 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 face multiplication statements** 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  $1 \times 8$  or  $8 \times 1$ ).
- 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.

## Questions more likely to appear

The following 11 multiplication questions are more likely to be asked:

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

## How the school teaches times tables so pupils learn instant recall

Teaching times tables facts first:

- Counting and looking for patterns
- Repeated addition
- Multiplication is commutative
- Multiplication is the inverse of division
- Number families

Use of different representations

- Concrete manipulatives such as counters or multilink cubes
- Pictorial representations such as arrays

## Counting and looking for patterns

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  $2 \times 4$  is the same as  $2 + 2 + 2 + 2$


Sam




Chen



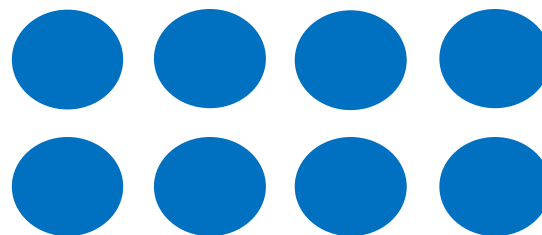
Krishna



Alex



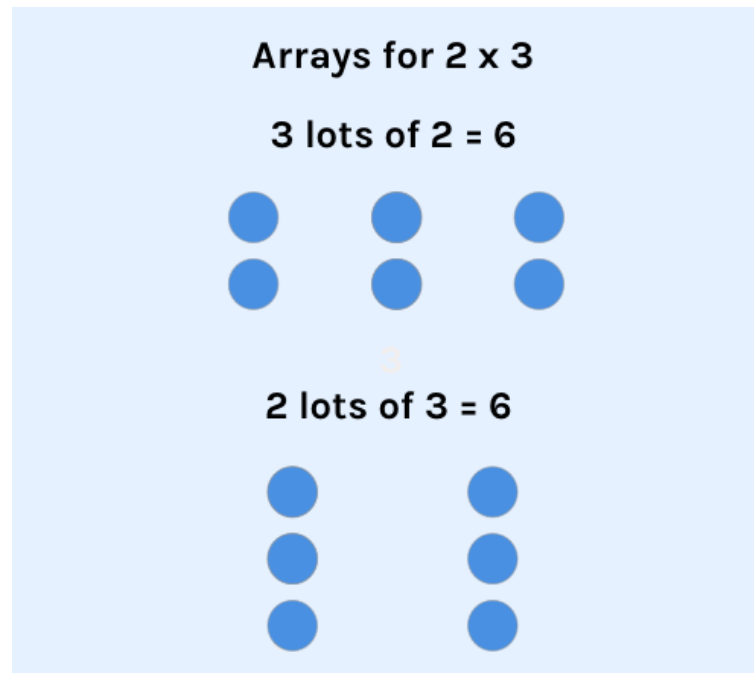
$2 + 2 + 2 + 2 = ?$



## Multiplication is commutative

$3 \times 2$  is the same as  $2 \times 3$ .

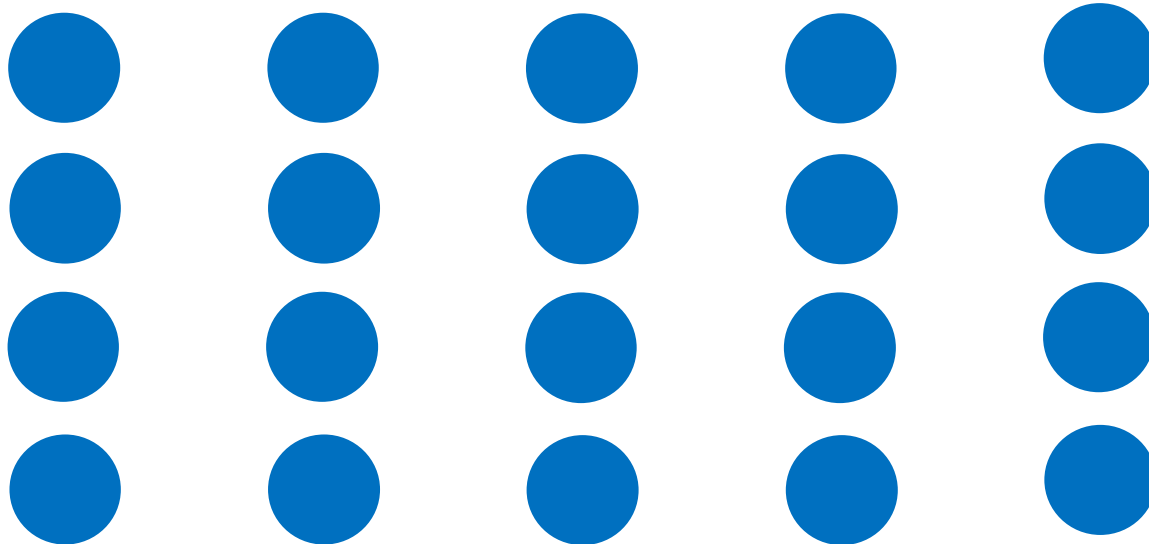
Children need to understand that multiplication can be completed in any order to produce the same answer. Sometimes this link needs to be made explicit.



## Multiplication is the inverse of division

$20 \div 5 = 4$  can be worked out because  $5 \times 4 = 20$ .

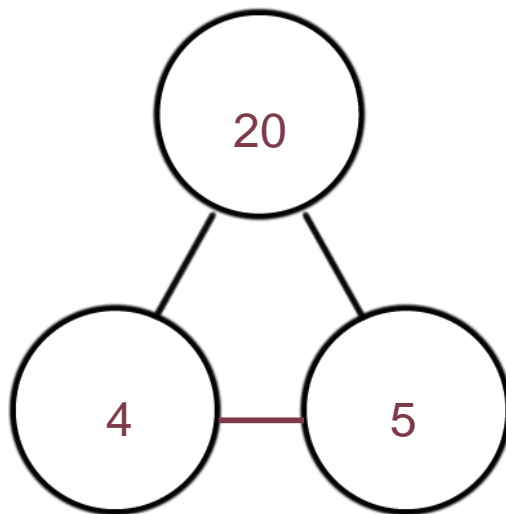
Using pictorial representations (such as arrays) is useful here for children to see the link between multiplication and division.



## 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 see whole number families. For many children this will need to be pointed out and discussed.





## Using known facts

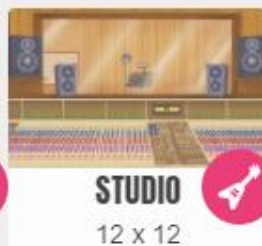
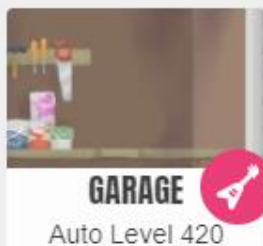
$$7 \times 12 = ?$$

I know  $7 \times 11 = 77$   
Therefore,  $77 + 7 = 84$

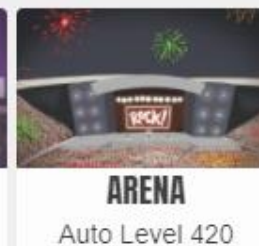
By using known facts from 'easier' times tables, children should be able to find answers with increasing speed.

## Times Tables Rockstars!

### SINGLE PLAYER



### MULTIPLAYER



You can also use this free multiplication table check which will give you an idea of the speed at which children will be asked questions:

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

## How can I support my child with their multiplication tables?

Firstly, a positive attitude goes a long way – so as much encouragement and support as possible (but we don't need to tell you that)!

Some further tips:

- Make times tables fun;
  - Climb stairs counting in multiples
  - Play verbal times tables games
  - Listen to and learn times tables songs
  - Take it in turns to say different times tables in funny voices (i.e. say  $2 \times 3 = 6$  in a lion's voice)
  - Play online maths games
- Encourage your child to talk to you, their teacher, or another adult they trust, if they express persisting anxieties about the check. Remember that a small amount of anxiety is normal and not harmful.

**Any Questions?**