

## Year 4 Multiplication Tables Check 2022 Presentation for Parents \& Carers

Important information about multiplication tables check (MTC)

- The MTC determines if Year 4 children can fluently recall their multiplication tables.
- They are deigned to help schools identify which children require more support to learn their times tables.
- There is no 'pass' rate or threshold which means that, unlike the Phonics Screening Check, children will not be expected to re-sit the check.
- The Department for Education (DfE) will create a report about the overall results across all schools in England, not individual schools.

When the check will take place

- There will be a 3 week window from Monday $6^{\text {th }}$ June to Friday $24^{\text {th }}$ June 2022 for schools to administer the check.
- There is no set day to administer the check and children are not expected to take the check at the same time.
- All eligible Year 4 children in England will be required to take the check.


## How the check is 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.


## Specific arrangements for the check

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.


## 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. $8 \times 6$ and $6 \times 8$ ) will not be asked in the same check.
- Children will not see their individual results when they complete the check.


## More information about the questions

The Standards and Testing Agency (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.
5.2.1 Table 1 - Multiplication table limits in the MTC

| Multiplication <br> Table | Minimum number <br> of items in each <br> form | Maximum number <br> of items in each <br> form |
| :---: | :---: | :---: |
| $\mathbf{1}$ | Not applicable | Not applicable |
| 2 | 0 | 2 |
| 3 | 1 | 3 |
| 4 | 1 | 3 |
| $\mathbf{5}$ | 1 | 3 |
| 6 | 2 | 4 |
| 7 | 2 | 4 |
| 8 | 2 | 4 |
| 9 | 2 | 4 |
| 10 | 0 | 2 |
| 11 | 1 | 3 |
| 12 | 2 | 4 |

## Why are times tables so important?

- Supports mathematical learning, particularly aspects of number (long multiplication, short division)
- Supports other mathematical learning eg. calculating equivalent fractions, finding the area of a square/rectangle, finding fractions of amounts
- It will help children to calculate more fluently. (Children can then focus on the method needed to complete a reasoning problem rather than being distracted with struggling to work out the times table)
- Consequently, children will feel more positive/ confident within maths.
- Children are expected to know their times tables by the end of Year 4 so that they can work confidently in Years 5/6 and beyond into secondary school.


## Ways to support times table knowledge

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

Use different representations to represent multiplication, such as:

- Concrete manipulatives suck as multilink cubes or counters.
- Create pictorial representations such as arrays.

Counting and looking for patterns.

Example: Counting in $2 s$
$2,4,6,8,10 \ldots$

- 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 $2+2+2+2$


$2+2+2+2=?$

$2 \times 4=?$

## 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.


3 lots of $2=6$


2 lots of $3=6$

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

$$
\begin{gathered}
12 \times 6=? \\
\text { I know } 11 \times 6=66 \\
\text { Therefore, } 66+6=72
\end{gathered}
$$

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

How best to prepare your child for the check

- 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.

