



# Maths Multiplication Policy

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Northbourne CE Primary School  
Cockcroft Road,  
Didcot  
OX11 8LJ

## Introduction

Times Tables are at the heart of mental arithmetic, which helps form the basis of a child's understanding and ability when working with number. Once a child has learnt the times tables and related division facts by heart, they are able to work far more confidently and efficiently through a wide range of more advanced calculations.

At Northbourne, we believe that through a variety of interactive, visual, engaging and rote learning techniques, most children can achieve the full times table knowledge by the time they finish Year 4.

## Aims

- To raise the profile of the teaching of times tables and to raise the overall knowledge of times table and related division facts across the school.
- To develop our knowledge of language associated with times tables: 'times', 'lots of', 'product', 'multiplied by'.
- To ensure continuity in practices and progression in times tables.

## Times Tables Progression

Below is the expected progression throughout the school, but children who are ready may progress into higher year group expectations once they have a secure knowledge of the times table facts (and related divisions) from their own year group and can recall them accurately.

Requirements for satisfying the year group expectations are as follows:

- To be able to count in steps, the children are required to count on in quick succession. If the child has to count on in 1's to reach the next 5, the child is unable to count on in 5's.
- To be able to recall, the child must be able to recall the times tables and related division facts instantly. If the child needs to count on/count up in 7's to reach  $4 \times 7$ , they do not know their 7 times table. They are able to count on in 7's.

Reception	To begin to count in steps of 10, 5 and 2. To double and half.
Year 1	To secure counting in steps of 10, 5 and 2.
Year 2	To be able to recall the 10, 5, 2 and 11 times tables. To begin to recall related division facts. To be able to count in steps of 3.
Year 3	To be able to recall the 3, 6, 4 and 8 times tables and related division facts.
Year 4	To be able to recall the 7, 9 and 12 times tables and related division facts. Revision of all times tables and division facts up to $12 \times 12$ .
Year 5	Revision of all times tables and division facts up to $12 \times 12$ , including decimal equivalents.
Year 6	Revision of all times tables and division facts up to $12 \times 12$ , including decimal equivalents.

## Teaching Times Tables

Times tables are taught explicitly at the start of one mathematics lesson (typically a Monday) for approximately 15 minutes. This should include strategies and techniques to help children understand the concept of times tables, including arrays, findings patterns and making links between known times tables where relevant. A range of activities are used to support learning, including counting sticks, chanting, songs, times table grids, games and challenges. The times table chosen for this taught session could be the one the majority of children in the class are working on or be more randomly chosen. It is expected that a short counting or times tables starter, to rehearse knowledge, takes place daily throughout the school.

## Assessment

To ensure that children are secure in the counting and recall of the times table and related division facts the children need to be regularly assessed.

In Reception and Year 1, this assessment is broadly teacher assessment through carpet counting sessions.

In Year 2, children complete a paper activity once a week and children in KS2 complete a paper test three times a week.

In KS2, there are six tests of 13 questions for each multiplication, which consist of: mixed multiplication questions with the answers available, mixed multiplication questions without the answers, mixed division questions with the answers available, mixed division questions without the answers, a mixture of both multiplication and division questions and a mixture of both multiplication and division questions with missing boxes.

Children in KS2 are given three minutes to complete each test, while children in KS1 are given 5 minutes to complete their activity and must repeat the test or activity until it can be completed in this time.

If errors are made in a test, the test must be repeated until no errors occur. It is at the discretion of the class teacher to decide when to activate more focussed intervention support, to allow mastery of each times table and to ensure all children can move throughout the six tests at a steady rate.

Marked tests/activities are sent home with children to share with parents, across all year groups.

Children are rewarded with a certificate once they have completed all tests from a multiplication.

## Differentiation

It is expected that children will be at varying stages in their times table journey. If children are confident in the times tables allocated for their year group, they must be moved on to the times tables from the year above. If they have not yet achieved the target times tables for their year groups, they must continue to work on the times tables from the year group below until they are secure.

Once children can recall all their times tables facts, they need to be extended through place value, related number facts and real-life problem solving in context. They may also complete randomly chosen previous tests to allow regular rehearsal of these number facts.

## Displays

Times tables should be on display in all classrooms, for children to use as support and reference – although these must be covered during the assessment session.

In KS1, the 2, 5, 10, 11 and 3 times tables must be displayed. In KS2 the 4-12 times tables must be displayed. Teachers may display other times tables if they wish.

### **Home learning**

Times Table Rock Stars is a home learning tool to which all pupils from Year 2 to 6 have access. It is a carefully sequenced programme of daily times tables practice. Each week concentrates on a different times table, with a recommended consolidation week for rehearsing the tables that have recently been practised every third week or so. Teachers can access and set learning tasks for pupils, and children are expected to be actively encouraged to access this platform from home. The focus is on the speed at which the children can answer questions, with different rock statuses that the children can work towards.

### **Application of times tables in calculation**

A child's growing understanding of times tables is only relevant if they are aware of their application in calculations and real life. Children should be using recall of times tables when needed in calculations. This awareness can be created in several ways:

- Highlighting when times tables are being used during modelling.
- Discussion of how they are being applied during problem solving.
- Inclusion of real-life examples of times table application.
- Practising times tables daily.
- Marking that identifies where errors have been made, due to incorrect calculating.