Bitterne C of E Primary School

Maths: Times Tables Policy

Headteacher

Andy Peterson

Last review- December 2019

Next review – December 2021

Signed by Chairs of Governors

Amanda Humby on behalf of Bitterne CE Primary School

Purpose of times table policy

Times table knowledge is at the heart of mental arithmetic, and is vital to delivering a maths mastery curriculum. Fluency of known multiplication and division facts form the basis of a child's understanding and ability when working with number. With fluent understanding of multiplication tables and the related division facts, children are able to work efficiently and more confidently through a wider range of calculations. Confidence in their knowledge of times tables reduces cognitive load and ensures that children can focus on more complex mathematical challenges and deeper conceptual understanding. At Bitterne Church of England Primary School, we believe that through a variety of interactive, representational, engaging and rote learning techniques, most children can achieve the appropriate times table knowledge required by the national curriculum.

Aims

1. To explain the expected practices across the school, and to ensure that children learn their times tables.
2. To raise the profile of the teaching of times tables, and to raise overall knowledge of the times tables and related division facts.
3. To ensure continuity in practices and progression in times tables.
4. To ensure there is consistent teaching and learning of times tables and related division facts within the school.
5. To develop the vocabulary associated with times tables: 'times', 'lots of', 'product', 'groups of', 'commutative', 'distributive', 'associative', 'quotient', 'divisor', 'dividend'

Progression of times tables throughout the school

Below is the expected progression through the school, with certain times tables prescribed to year groups based on national curriculum requirements and, in some circumstances, linked times tables taught at an earlier stage than the national curriculum stipulates.

As per the national curriculum, some year groups are required to demonstrate that children can count in multiples of a given number, but aren't required to recall multiplication and division facts associated with the given number. In other year groups, there is a definite requirement for children to fluently recall the associated multiplication and division facts for specific times tables.
The teaching and learning requirements for each year group are listed in the timetable below.

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.
  For example: if the child has to count on in ones to reach the next multiple of 5, the child is not able to count on in 5s.
- To be able to recall, the child must be able to recall the times tables and related division facts instantly.
  For example: if the child must count on in sixes to reach 4 x 6, the child does not know their 6x table. They are able to count on in 6s.

End of year group expectations:

Reception

- To be able to count on in steps of 2

Year 1

- To be able to count on in steps of 2
- To be able to count on in steps of 5
- To be able to count on in steps of 10

Year 2

- To be able to recall the 2 times table and associated division facts
- To be able to recall the 5 times table and associated division facts
- To be able to recall the 10 times table and associated division facts
- To be able to count on in steps of 3

Year 3

- To be able to recall the 3 times table and associated division facts
- To be able to recall the 4 times table and associated division facts
- To be able to recall the 8 times table and associated division facts
- To be able to recall the 11 times table and associated division facts

Year 4

- To be able to recall the 6 times table and associated division facts
- To be able to recall the 7 times table and associated division facts
- To be able to recall the 9 times table and associated division facts
- To be able to recall the 12 times table and associated division facts

Year 5 and 6

- To be able to recall all of the times tables and related division facts through regular and timely consolidation of all.

Year R						
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Tables taught					Count in 2	Count in 2

Year 1						
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Tables taught	Count in 2	Count in 2 and 5	Count in 2 and 5	Count in 5 and 10	Count in 2 and 10	Count in 2, 5 and 10

Year 2						
Term	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Tables taught	2x and ÷ Count in 10	2 and 5 x and ÷	2 and 5 x and ÷ Count in 10	5 and 10 x and ÷ Count in 3	2, 5 and 10 x and ÷ Count in 3	2, 5 and 10 x and ÷ Count in 3

Year 3																																		
Term	Autumn 1						Autumn 2						Spring 1						Spring 2						Summer 1						Summer 2					
Week	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Tables taught	3x and ÷	2x and ÷	3x and ÷	5x and ÷	3x and ÷	10x and ÷	2x and ÷	4x and ÷	3x and ÷	4x and ÷	3x and ÷	4x and ÷	4x and ÷	8x and ÷	3x and ÷	8x and ÷	4x and ÷	8x and ÷	8x and ÷	5x and ÷	8x and ÷	10x and ÷	8x and ÷	Recap test	3x and ÷	Count in 11	4x and ÷	Count in 11	8x and ÷	Count in 11	11x and ÷	8x and ÷	11x and ÷	4x and ÷	11x and ÷	3x and ÷

Year 4																																		
Term	Autumn 1						Autumn 2						Spring 1						Spring 2						Summer 1						Summer 2					
Week	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Tables taught	3x and ÷	6x and ÷	11x and ÷	6x and ÷	8x and ÷	6x and ÷	6x and ÷	12x and ÷	4x and ÷	12x and ÷	8x and ÷	11x and ÷	6x and ÷	9x and ÷	12x and ÷	9x and ÷	12x and ÷	8x and ÷	6x and ÷	7x and ÷	9x and ÷	7x and ÷	12x and ÷	7x and ÷	Teaching based on AfL; Year 4 Multiplication Checks						Consolidation activities, based on AfL					

Year 5																																		
Term	Autumn 1						Autumn 2						Spring 1						Spring 2						Summer 1						Summer 2					
Week	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6	1	2	3	4	5	6
Tables taught	3x and ÷	6x and ÷	3x and ÷	9x and ÷	6x and ÷	12x and ÷	7x and ÷	8x and ÷	4x and ÷	8x and ÷	11x and ÷	12x and ÷	Bi-weekly practice, based on AfL												Daily recap and review through arithmetic practice											

Teaching of times tables across the school

Before beginning to learn times tables, children should be familiar with the concept of repeated addition so that they can make an explicit link between times table facts and this concept. This should also allow children to see the relevance of times table knowledge in every day contexts.

It is expected that times tables are taught across all of the year groups as specified above. Year groups are required to support children's times table knowledge through teaching the focus times table in a lesson-type format before then recapping the knowledge, through any appropriate means that will embed children's fluent and reasoning application of the table.

A range of teaching and learning strategies are expected to be used to provide appropriate support for children. Alongside a level of rote learning of times tables, there is an expectation that the teaching of times tables will embrace the school's concrete-representation-abstract approach to mathematics.
There are many strategies that teachers will use to support times table teaching, including many strategies from the 'mastery' approach to mathematics. These may include, but are not limited to:

- Counting sticks;
- Chanting;
- Quick-fire questions;
- Number lines;
- Dienes;
- Cuisenaire rods;
- Ten-frames;
- Bar models;
- STEM sentences;
- Reasoning and problem-solving rich activities, which allow children to make links and spot patterns.

Further to this, all pupils in key stage 2 at Bitterne CE Primary have accounts for TTRockStars (ttrockstars.com) in order to support their learning of key times table facts, which can be accessed at both school and home.

Throughout times table teaching, teachers will promote mathematical vocabulary and an awareness or the appropriate terminology associated with multiplication and division. This will include key mathematical terms, such as: factor, product, multiple, dividend, divisor, and quotient. Moreover, children will become increasingly familiar with the commutative, associative and distributive laws.
Additionally, teachers will ensure that children recognise that the 'X' symbol for multiplication represents 'of' or 'groups of'. For example, this will mean that children will become increasingly aware that the calculation 3 X 2 means 3 groups of 2.

Differentiation

As some children may be at varying stages of times table knowledge, there is an understanding that children may require different activities to deepen and enhance their times table knowledge.
It is expected that children will be at varying stages in their times table journey. In KS1, it is very important that less able children have extra support in developing an understanding of the concept of 'lots of' to support their understanding of multiplication.
If children are confident in the times tables allocated for their year group, they must be exposed to deeper, problem-solving based activities to identify patterns and links, as well as building related facts. If they have not yet achieved the target times tables for their year groups, they must receive additional support with their times tables knowledge from the prior year group's curriculum until they are secure.

Assessment

To ensure that children are secure in the recall of the times table and related division facts, the children need to be regularly assessed.
In reception and year 1, this knowledge can be assessed through carpet recall sessions and through evidence found in the times table/counting on learning journeys.
From year 2 onwards, the children should be assessed weekly on their ability to recall times tables and related division facts. These assessments can take place at the beginning or end of maths lessons, or at other points in the time table as the class teacher sees fit.
In year 3 and year 4, at the end of a half term, teachers will complete a summative assessment of children's times table knowledge taught over the half term to identify gaps and give teachers the flexibility to adapt planning and provision moving forward.
Teachers can also use additional tools to support their assessments of children's times table knowledge by using reports from interactive sources, including TT Rock Stars (ttrockstars.com).

Displays

All times tables covered within, or before, the given year group should be displayed in all classrooms. These must be available for children to consult for support and reference, although these should be taken down or covered during weekly assessments. It is important that children are aware of the expectations for correctly using the displays to support their learning. If teachers desire, they can display additional times tables that they feel will support or contribute to their pupil's learning and understanding.
Where there is a limit to display areas, teachers will have times table grids and similar supports available to assist children at their tables or on the carpet.

If teachers desire, they can use displays to record children's attainment and progress in their ability to recall specific times tables; however, this is not a requisite.

This policy will be reviewed every 2 years or sooner as appropriate.