Dodworth St. John the Baptist C of E Primary Academy

Approach to the teaching of Times Tables

Rationale

Fluency in multiplication and division facts is fundamental to success in mathematics. Secure recall supports pupils in more complex areas such as fractions, ratio, algebra, and problem solving. Without automatic recall, pupils can struggle with higher-order concepts.

This policy outlines a consistent, whole-school approach to the teaching, learning, and assessment of times tables to ensure all pupils leave primary school fluent, confident, and able to apply their knowledge in a range of contexts.

Impact

As a result of this approach, we expect that children are:

- ✓ fluent and confident in times tables recall.
- ✓ can apply knowledge to solve reasoning and problem-solving tasks.
- ✓ meet or exceed the national expectation in times tables recall by the end of Year 4.
- ✓ families are engaged in supporting fluency at home.
- ✓ Improved outcomes in maths at the end of KS2

Age-Related Expectations

Year 1

Count in multiples of 2s, 5s and 10s.

Represent repeated addition through practical and pictorial models.

Year 2

Count in steps of 2, 3, and 5 from 0, and in 10s from any number, forwards and backwards.

Recall and use multiplication and division facts for the 2, 5 and 10 tables.

Understand and use inverse relationships (multiplication and division).

Year 3

Recall and use multiplication and division facts for the 3, 4, 6 and 8 tables.

Apply facts in varied contexts (arrays, bar models, reasoning tasks).

Year 4

Recall and use multiplication and division facts for all tables up to 12 × 12.

Apply knowledge to multi-step word problems.

Prepare for the statutory **Multiplication Tables Check (MTC)**.

Year 5 & 6

Consolidate recall of all facts up to 12 × 12.

Apply knowledge to larger numbers, decimals, fractions, percentages, and algebra.

Explore related concepts (squares, cubes, primes, multiples, factors).

Order of Teaching Times Tables by rote

	Year 2	Year3	Year 4
Autumn	10x	4x 8x	7x
Spring	5x	3x 6x 9x	Consolidate
Summer	2x Counting in 3s	11x 12x	Consolidate

Where Multiplication sits in White Rose Maths (mixed age)

Year 1/2 - Spring Term

National Curriculum links

- Count, read and write numbers to 100 in numerals; count in multiples of 2s, 5s and 10s (Y1)
- Count in steps of 2, 3 and 5 from 0, and in 10s from any number, forward and backward (Y2)

Step 1	Count in 2s, 5s and 10s
Step 2	Count in 3s
Step 3	Recognise equal groups
Step 4	Make equal groups
Step 5	Add equal groups
Step 6	Make arrays
Step 7	Multiplication sentences
Step 8	Commutativity
Step 9	Make equal groups – grouping
Step 10	Make equal groups – sharing
Step 11	The 2 times-table
Step 12	Divide by 2
Step 13	Doubling and halving
Step 14	Odd and even numbers
Step 15	The 10 times-table
Step 16	Divide by 10
Step 17	The 5 times-table
Step 18	Divide by 5
Step 19	The 5 and 10 times-tables

Year 3/4 - Autumn Term

National Curriculum links

- Write and calculate mathematical statements for multiplication and division using the multiplication tables that they know, including for 2-digit numbers times 1-digit numbers, using mental and progressing to formal written methods (Y3)

Step 1	Use arrays
Step 2	Sharing and grouping
Step 3	The 2, 5 and 10 times-tables
Step 4	The 4 times-table
Step 5	The 8 times-table
Step 6	The 2, 4 and 8 times-tables
Step 7	The 3 times-table
Step 8	The 6 times-table
Step 9	The 9 times-table
Step 10	The 3, 6 and 9 times-tables
Step 11	The 7 times-table
Step 12	The 11 times-table
Step 13	The 12 times-table
Step 14	Multiply by 1 and 0
Step 15	Divide a number by 1 and itself

Year 3/4 - Spring Term

National Curriculum links

- Recognise and use factor pairs and commutativity in mental calculations (Y4)

Step 1	Factor pairs
Step 2	Multiply and divide by 10 and 100
Step 3	Reasoning about multiplication
Step 4	Multiply three numbers
Step 5	Efficient multiplication
Step 6	Scaling
Step 7	Correspondence problems
Step 8	Multiply up to a 3-digit number by a 1-digit number – no exchange
Step 9	Multiply up to a 3-digit number by a 1-digit number – with exchange
Step 10	Related calculations – multiplication and division
Step 11	Divide by a 1-digit number – flexible partitioning
Step 12	Divide up to a 3-digit number by a 1-digit number – no exchange
Step 13	Divide up to a 3-digit number by a 1-digit number – with exchange
Step 14	Divide up to a 3-digit number by a 1-digit number – with remainders

Year 5/6 - Autumn Term

National Curriculum links

- Identify multiples and factors, including finding all factor pairs of a number, and common factors of two numbers (Y5)
- Solve problems involving multiplication and division, including using their knowledge of factors and multiples, squares and cubes (Y5)

Step 1	Multiples
Step 2	Common multiples
Step 3	Factors
Step 4	Common factors
Step 5	Rules of divisibility
Step 6	Prime numbers
Step 7	Square and cube numbers
Step 8	Multiply by 10, 100 and 1,000
Step 9	Divide by 10, 100 and 1,000

National Curriculum links

- Multiply numbers up to four digits by a 1- or 2-digit number using a formal written method, including long multiplication for 2-digit numbers (Y5)
- Multiply multi-digit numbers up to four digits by a 2-digit whole number using the formal written method of long multiplication (Y6)

Step 1	Multiply a 2-digit number by a 2-digit number
Step 2	Multiply up to a 4-digit number by a 2-digit number
Step 3	Solve problems with multiplication
Step 4	Short division
Step 5	Divide a 4-digit number by a 1-digit number
Step 6	Division using factors
Step 7	Introduction to long division
Step 8	Long division with remainders
Step 9	Solve problems with division
Step 10	Efficient division
Step 11	Solve multi-step problems
Step 12	Order of operations
Step 13	Mental calculations and estimation
Step 14	Reason from known facts

Teaching Approaches

Daily Fluency

5–10 minutes of times tables practice each day.

Strategies include chanting, oral recall, partner games, and written recall challenges.

Weekly Practice & Assessment

Low-stakes quizzes/tests each week across all KS2 year groups.

Focused recall sessions, with progression across year groups.

Years 3 & 4 Soundchecks

Pupils complete weekly soundchecks in preparation for the MTC.

Staff analyse outcomes to identify gaps and provide targeted intervention.

Results shared with pupils and families to promote joint responsibility for improvement.

Strategies for Learning

Use of CPA (Concrete–Pictorial–Abstract) progression

Fact families (multiplication, division).

Use of visual supports (arrays, number lines, bar models).

Use of patterns, strategies, and "tricks" (e.g. doubling and halving for 4s and 8s).

Technology Integration

Regular use of **Times Tables Rock Stars (TTRS)** in lessons and home learning.

Heat maps analysed to identify gaps and track progress.

Pupil and family access to TTRS accounts to encourage home practice.

Home Learning

Weekly times tables focus shared with families.

Practical games and digital platforms encouraged at home.

Monitoring and Assessment

Daily monitoring of fluency through lesson questioning and recall activities.
Weekly assessment via quizzes/tests, adapted to year group expectations.
Year 3 and Year 4 Soundchecks:
Pupils complete weekly online soundchecks in preparation for the MTC.
Staff analyse results for gap analysis and targeted intervention (knowledge or fluency/speed)
Progress tracked and shared with parents.
Half-termly tracking of fluency across all year groups, using TTRS heat maps and teacher records.
Year 4 MTC statutory assessment prepared for systematically from Year 3 onwards.
Pupil progress meetings used to identify children requiring additional support.

Consistency and Whole-School Culture

Common strategies and language agreed and applied across the school.
Class challenges, certificates, and whole-school competitions used to celebrate success.
Maths subject lead to oversee policy implementation and data analysis.
Governors updated on school progress towards fluency targets.