



Maths at Tetney

Maths: The Curriculum

Maths plays a central role within the curriculum at Tetney Primary School and is fundamental to our mission of creating an aspirational, knowledge-rich curriculum for our pupils. We aim to provide a high-quality mathematics education which will provide a foundation for understanding the world, to develop an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Maths at Tetney Primary School is underpinned by methodical, coherent, curriculum design created by Effective Maths and supported by carefully crafted lessons and resources to foster deep conceptual understanding and procedural knowledge. The curriculum design enables children to build on their previous learning in each new step in their learning journey. As a result of the accumulation of essential knowledge and skills our pupils will leave our school as confident, resilient mathematicians, demonstrating conceptual and procedural fluency, with the ability to reason mathematically and efficiently solve problems.

We use a Teaching for Mastery approach to support learning of mathematics. Mastery in mathematics is underpinned by the following key principles: it is achievable for all; learning is deep and sustainable; learning builds on something that has already been sufficiently mastered; reasoning about concepts and making connections; developing conceptual and procedural fluency.

At the end of the Foundation Stage

Children count confidently and have a deep understanding of the numbers to 10, the relationships between them and the patterns within those numbers. Children will have developed their spatial reasoning skills across all areas of mathematics including shape, space and measures and will have positive attitudes and interests in mathematics.

At the end of Key Stage 1

Pupils have developed their confidence and fluency with whole numbers, counting and place value. Pupils work fluently with number facts to 20 and have explored all four operations. Pupils describe properties of shapes, and also compare and describe different quantities such as length, mass as well as time and money.

At the end of Key Stage 2

Pupils have extended their knowledge of the number system and place value to larger integers. Pupils make connections between fractions, decimals, percentages and ratio. Pupils use efficient written and mental methods for calculation when solving problems. Pupils also use mathematical vocabulary correctly, when articulating and explaining how they solved the problem.

Pedagogy: How the Curriculum is Taught

Within our Maths curriculum we have the following elements:

- Lessons are structured with carefully sequenced **small steps** of learning. These small steps are developed through explicit teacher modelling, worked examples, guided practice, partner work and independent practice. Practice tasks incorporate procedural variation to ensure intelligent (not mechanical) practice.
- Pupils are provided with carefully chosen concrete or pictorial **representations to support development of conceptual understanding which will lead to procedural fluency**; the is to move towards working in the abstract.
- Whole class teaching is in **mixed attainment classes** and in **mixed attainment learning partners**.
- We work with the assumption that all pupils can achieve a high standard in mathematics. Pupil work is **not differentiated by task**. Instead, children who require more support are provided with additional structures to enable them to access the learning (such as working with concrete resources for longer or being provided with focused pre-teaching or same day intervention) Pupils who grasp concepts quickly will be challenged to think about particular aspects more deeply and to work on more complex problems within the same curriculum content.
- There is a big focus on developing children's **mathematical vocabulary and language**. Teachers use whole class chorusing, stem sentences and repetition of key words and sentences to ensure pupils develop fluency with using mathematical vocabulary and develop precise explanations.
- Fluency has dedicated teaching time, where the focus is on developing **automaticity with number facts**, and applying number facts to mental arithmetic strategies as well as formal arithmetic procedures. The focus of fluency lessons is on efficiency, accuracy and flexibility. Pupils are encouraged to notice the numbers before beginning a calculation, and to identify patterns, relationships or structures which may lead to an efficient calculation strategy.
- Pedagogy is underpinned by Rosenshine's Principles

Assessment

We use a multi-faceted approach to assessment within maths, including:

- End of unit assessment quizzes
- Regular retrieval practice
- Assessment for learning within each lesson through skilful use of questioning and live feedback
- Mid-year and end of year assessments
- Regular low-stakes times tables tests



Cultural Capital

Enrichment, is an essential part of the Maths Curriculum which provides pupils with extended time to focus and deepen their learning.

- Real life examples are given where possible
- Children go on local area visits to apply mathematical concepts to real life
- Whole school competitions in TTRS
- Practical resources and visual stimuli are used
- Children are given opportunities to talk about the maths they see in visual stimuli
- Maths is used in the wider curriculum to establish real life applications and links

Career Professional Development

We develop strong subject knowledge amongst all staff which is achieved through: comprehensive middle leadership development, a focus on developing all teachers' subject knowledge and Maths pedagogy and a comprehensive support program available through our Maths Hubs maths specialist.

CPD activities include:

- Bespoke support for teachers through working with maths lead
- Coaching and mentoring programmes
- Team-teach and model lessons
- Trust specialist support
- Subject knowledge development sessions
- Collaboration with other Maths Hubs schools
- KYRA Maths community events

Maths Curriculum Overview:

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Block 1	Cardinality 1, 2, 3 Pattern 1, 2, 3, 4, 5 Spatial relationships - shape & space 1, 2, 3, 4 - measures 1, 2, 3 Composition 1, 2	Transition unit Place value Calculation 1 Calculation 2 Geometry Money 1	Place value Addition & subtraction Multiplication and division Time Fractions Geometry	Place value Addition & subtraction Multiplication and division Time Fractions Geometry	Place value Addition & subtraction Multiplication and division Time Fractions Geometry	Place value Addition & subtraction Multiplication and division Time Fractions Percentages Geometry	Place value Addition & subtraction Multiplication and division Time Fractions Percentages Geometry
Block 2	Cardinality 1(continued), 4, 5, 6 Composition 3 Pattern 6, 7 Spatial relationships - shape & space 5, 6, 7 - measures 4, 5 Comparison 3, 4 Composition 4, 5	Place value u2 Calculation 3 Calculation 4 Statistics Calculation 5 Money 2	Money Place value U2 Addition and subtraction U2 Multiplication and division U2 Fractions U2 Statistics Place value U3	Money Place value U2 Addition and subtraction U2 Multiplication and division U2 Fractions U2 Statistics	Money & decimals Place value U2 Addition and subtraction U2 Multiplication and division U2 Fractions U2 Statistics	Money & decimals Place value U2 Addition and subtraction U2 Multiplication and division U2 Fractions U2 Statistics	Geometry Money & decimals Place value U2 Addition and subtraction U2 Multiplication and division U2 Fractions U2 Algebra Statistics measurement
Block 3	Composition 6, 7	Place value u3	Calculation Money U2 Length	Place value U3 Calculation	Place value U3 Calculation	Place value U3 Calculation	Place value U3 Calculation



	Cardinality 1(continued), 7, 8 Pattern 7, 8 Spatial relationships - measures 6 - time 1, 2	Calculation 6 Fractions Length & height Mass & volume Time Patterns & relationships	Mass & volume Patterns & relationships	Money U2 Length Mass & volume Patterns & relationships	Money and decimals U2 Length Mass & volume Patterns & relationships	Money and decimals U2 Length Mass & volume Patterns & relationships	Money and decimals U2
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