



Diocese of Norwich
St Benet's
Multi Academy Trust

Alburgh with Denton C of E Primary Academy

Maths Policy

Date for Review: September 2027

Our School Vision:

"Mighty Oaks from Tiny Acorns Grow"

Our Vision is based upon the parable of the mustard seed: "The kingdom of God is like a mustard seed, that seed is the smallest of all seeds. But when it grows, it is one of the largest garden plants" [Matthew 13 V31-32] This is underpinned by the common language of our core values: Hope, Forgiveness and Justice.

Introduction:

This policy outlines the intent, implementation and intended impact for the teaching, leadership and assessment of Mathematics at Alburgh with Denton Primary School.

Intent:

The intent of our Mathematics curriculum at Alburgh with Denton is the development of deep structural knowledge and the ability to make connections. Pupils develop fluent, technical proficiency and think deeply about the underpinning mathematical concepts. We intend to provide children with a foundation for:

- Understanding number
- Reasoning, thinking logically and problem solving with resilience
- We ensure that we deliver a high quality maths curriculum that is both challenging and enjoyable.
- To provide children with the ability to make rich connections across mathematical ideas
- We want children to develop automaticity in number facts so they can apply these in a variety of contexts
- Developing mathematical reasoning and competence in solving increasingly sophisticated problems.
- Becoming confident mathematicians who are not afraid to take risks.
- Develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.

By adopting a Mastery approach, it is also intended that all children, regardless of their starting point, achieve confidence and competence (known as 'mastery') in mathematics and will leave our school with an appreciation and enthusiasm for Maths, resulting in a lifelong positive relationship with number.

Implementation

At Alburgh and Denton our implementation is developed through secure understanding of the curriculum and subject area through the 'Five Big Ideas':

- Coherence
- Representation and structure
- Mathematical thinking
- Fluency
- Variation

Teaching and Learning, Content and Sequence

- For maths, our long-term planning follows the National Curriculum 2014. Daily lessons and short-term planning is supported by the use of the Mastery approach 'White Rose'.
- Using prior knowledge as a starting point for all future planning and teaching, we plan lessons which are required for all pupils to make good progress.
- Lessons are broken down into small connected steps that gradually unfold the concept, providing access for all children and leading to a generalisation of the concept and the ability to apply the concept to a range of contexts. These steps are: Explore, Guided Practice, Independent Task, Reasoning and challenge.
- Representations are used in lessons to expose the mathematical structure being taught, the aim being that students can do the maths without recourse to the representation.
- If taught ideas are to be understood deeply, they must not merely be passively received but must be worked on by the student: thought about, reasoned with and discussed with others.
- Children are taught quick and efficient recall of facts and procedures and the flexibility to move between different contexts and representations of mathematics. Each Maths lesson begins with a warm up of Arithmetic or times tables recall.
- Teachers represent the concept being taught, often in more than one way, to draw attention to critical aspects, and to develop deep and holistic understanding.

Leadership, Assessment and Feedback

- Assessment informs the teaching and learning sequence.
- Children who are identified as not making the expected progress are given extra support, usually in class and, when appropriate, through targeted interventions.
- Formative assessment, the use of our marking and feedback sheet within every lesson helps teachers to identify the children who need more support to achieve the intended outcome and who are ready for greater stretch and challenge through planned questioning or additional activities.
- In order to support teacher judgments, children are assessed using PiXL assessments provided by the MAT approximately once a term. The school also uses assertive mentoring grids and data from Times table Rock stars.
- Gaps analysis of any tests that the children complete is undertaken and fed into future planning.
- The maths subject leader has a clear role and overall responsibility for the progress of all children in maths throughout school. Working with SLT, key data is analysed

and regular feedback is provided at pupil progress meetings to inform on progress and future targets.

EYFS:

Our children, in Reception, begin their journey with us exploring number, patterns, measure and shape in a purposeful and rich learning environment. The classroom has a well-resourced maths area and the classroom is set up in a way that promotes daily opportunities for children to explore maths in a variety of different ways. This might be numbered cars in the construction area, or Numicon shapes hidden in playdoh. Once the children are settled into school and begin full time (third week in September), they then begin daily maths sessions. These sessions are from the same maths mastery programme that the rest of the school uses- White Rose. This provides fidelity and consistency for our children right from the very start, all the way until they leave us in year 6. Lessons have a similar structure, they start with a number song or nursery rhyme, the children then have a practical problem to explore, with lots of opportunities for thinking and talking time to develop mathematical vocabulary. Children are then supported with a teacher and teaching assistant to develop this further in everyday scenarios or with an additional 'challenge' set up in continuous provision. As the children progress throughout their Reception year, independent tasks are gradually introduced.

SEND:

We employ a 'keep up, not catch up' approach which makes sure that pupils really understand and remember what is being taught before they move on. This approach works well for children who are not meeting age related expectations meaning they can access the same curriculum with support and adaptations. This might mean that a child has additional 'guided practice' materials to look at instead of moving on to an independent task to ensure that skill has been mastered before moving them on. Children who require additional support, will often have this within the lesson, this doesn't always mean they will have a 1:1 or TA with them throughout the lesson. Where appropriate, children will be given additional materials or resources to support them to work independently. Where needed it may also mean children have targeted interventions to support one particular area within their Maths, so this might be a 'pre-teach' before the lesson begins.

Impact:

A mathematical concept or skill has been mastered when a child can represent it in multiple ways, has the mathematical language to communicate related ideas and can independently apply the concept to new problems in new ways.

As a result of teaching mathematics at Alburgh and Denton:

- Children will demonstrate quick recall of facts and procedures. This includes the recollection of the times tables.
- Children will have the flexibility and fluidity to move between different contexts and representations of mathematics.
- Children will have the ability to recognise relationships and make connections in mathematics.
- Children will be confident about and can talk about maths, their learning and the links between mathematical topics.
- Children will make good or better progress with their Maths.

Assessment:

We assess that children are on track for making expected progress in Maths if they are keeping up with the curriculum. Pupils knowledge and understanding is assessed in a number of ways:

- Dynamic assessment of pupil's progress within daily lessons;
- use of flash back 4's
- Daily marking and feedback
- Termly formal Pixl assessments
- Termly precision monitoring assessments
- Regular times table assessments using Timetable Rockstars

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Questioning and Reasoning Strategies used:

How do you know?

Justify Why?

What's the same? What's different?

Explain how you got your answer?

What did you do?

What do you notice?

How many different ways can you show me?

Think – Pair – Share

Cold call (no hands up)

No opt out (bounce back if a child isn't able to answer initially)

Probing questions (staying with a child to probe deeper to check understanding)

Say it again better (ask children to rephrase answers a second time to build a deeper, high quality answer)

Classroom Environment:

Every classroom has a maths working wall where key concepts, representations, models, vocabulary and methods are developed with the children and displayed to help facilitate the children's learning. This allows the whole class to have ownership of their learning and to be able to refer to key concepts throughout their learning in each topic. Children also have access to manipulatives to support them in their learning: number lines, place value charts, multiplication grids, Numicon, dienes, cubes, bead strings and other key resources. Children have access to these resources in every lesson.

Spirituality

In Maths, we develop children's spirituality by encouraging imagination, creativity, resilience and perseverance. Our curriculum allows children to take risks, to reflect on and grow from our successes and failures. Mathematics will enable children to make links between number, pattern and calculation, developing that natural awe and wonder around the subject.

Reading and Vocabulary

Reading is the starting point for each of our daily Maths lessons. All lessons start with a daily 'Explore' real life problem which the children read and interpret to demonstrate understanding. We discuss key vocabulary and this is modelled in context throughout Maths lessons by teachers and through the lesson resources. Vocabulary is collated on class working walls and referred to during lessons. The use of workbooks ensures the children are reading and understanding key Mathematical vocabulary.

Multiplication Tables:

Throughout the year groups 1-6, children are developing and consolidating their multiplication knowledge in line with our arithmetic and mental strategies document and age-related National Curriculum expectations. We teach multiplication in a variety of different ways including:

- Counting stick sessions
- Multiplication games
 - Times table Rockstars sessions both in school and at home
 - Weekly multiplication homework is also set using TTRS