



How we teach Maths at Austrey and Newton Regis CE Primary Schools

Becoming the person God made me to be: living,
learning, loving.

*"I praise you because I am fearfully and wonderfully
made" Psalm 139:14*

TRUST



JUSTICE



FORGIVENESS



HOPE



DIGNITY



COMMUNITY



Summer 2024

Links: [Calculation Policy](#), [Feedback Policy](#)

For the National Curriculum Document, please [click here](#)

Our Vision

Austrey and Newton Regis Church of England Schools are small schools at the heart of their rural communities. They have a living Christian foundation that follows the teaching and example of Jesus who reached out **in love** and drew in everyone, whatever their status or struggles, beliefs or views.

The biblical and theological ideas that have shaped our vision are as follows:
Created to be like God, we are all individual, different, and precious.

*As school families, we treat everyone with **dignity**, seeing each person as a vital stroke in the creation of the masterpiece which is our school **community**. We **love** and welcome everyone, supporting them in the ups and downs of life and giving them **hope** for a bright future in their **lives** and **learning**. We seek **justice** for all, embracing those who face challenges in their **lives** and **learning**. We act responsibly, treating everyone fairly but not necessarily the same. We work to ensure that everyone has what they need, and we act and speak up for those who don't. **Equity** underpins our commitment to enabling everyone to flourish as the person God made them to be. Therefore, living like Jesus, we think and act with generous and **forgiving** hearts in the strategic and day to day life of the school. **Trusting** in God and the teaching of the bible, we are building a culture of **trust** in which everyone can feel safe; confident that their spiritual, emotional, and academic needs will be met and that their **uniqueness** will contribute to the **unity** and **wholeness** of Austrey and Newton Regis Church of England Primary Schools.*

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Intent

The 2014 National Curriculum for mathematics aims to ensure that all children become fluent in the fundamentals for mathematics, are able to reason mathematically and can solve problems by applying their knowledge.

At Austrey and Newton Regis, we are committed to ensure that children develop an enjoyment and enthusiasm for mathematics by unlocking mathematical fluency and knowledge whilst recognising the importance for mathematics in the wider world.

Implementation

How do we teach mathematics at our school?

Our Maths curriculum provides breadth and balance, is relevant and engaging and is differentiated to match the needs and abilities of all our children to ensure that all pupils are able to excel.

Children take part in a daily maths lesson with additional sessions devoted to number proficiency and times tables. From Reception to Year 6, we adhere to our calculation policy which outlines the progression of strategies and methods to be taught across the four main operations of addition, subtraction, multiplication and division.

Long Term Plans and Resources

From Reception to Year 6, teachers use the scheme of 'White Rose' which supports children in learning the fundamentals behind the meanings of numbers and exploring other key mathematical areas. A range of resources are used in order to prepare children to answer a variety of fluency, problem solving and reasoning questions. These resources allow pupils to develop resilience, justify reasons and make connections within the mathematics curriculum. Staff have the freedom to create their own resources to meet the needs of their class through careful lesson design and planning using their assessment for learning; White Rose, NCETM, Classroom Secrets and Collin's Busy Ant are some of those commonly used throughout the school.

Teaching of Mixed Age Year Groups

As our pupils are taught in mixed age classes, within the maths lessons, teaching is differentiated mostly by year group. This is often done using a rotation teaching approach; one year group working with the teacher whilst the other year group is consolidating or practising a previous lesson objective, or working on a discussion task as a small group with a teaching assistant, and then this is swapped over.

Interrupting the Forgetting

As the maths curriculum covers many areas, we use an 'interrupting the forgetting' approach through short challenge activities and/or quizzes during registration, after lunch or at the end of the day to help our pupils remember ideas, rules and methods that they have completed in lessons taught the previous week, month or year. These activities can take anywhere between two and ten minutes in length depending on the skill being focused on.

Teaching - what elements would I see in a maths lesson?

- A range of concrete and pictorial resources being used
- Modelling of concepts by the teacher and teaching assistant
- A range of tasks, scaffolded to cater for all abilities
- A range of fluency, problem solving and reasoning activities being used
- Rotation teaching of year groups to meet mixed age objectives
- Mini-plenaries where necessary
- Active learning during teaching input - pupils engaged through discussion, working on mini-whiteboards
- Children working independently, in pairs or small groups

Assessment - feedback not marking

Teachers will use a range of assessment methods during a maths lesson which will then inform their future planning. This includes on the spot marking, children using self-marking to check their own answers and small group peer marking with a teacher or teaching assistant. When pupils get a question wrong, they are encouraged to correct their error using a purple pen.

Teaching of times tables and number fluency

All pupils from Y2-Y6 have their own personal TTRockstars login to aid their fluency and rapid recall of multiplication tables. It is expected that children use this at home at least three times per week. Pupils will be allocated time within the classroom to use this resource and is sometimes used during the rotation teaching approach when teachers are working with one year group. Times tables must be taught as well as tested in KS1 and lower KS2. We teach times tables through a variety of ways including oral chanting, using a counting stick and singing songs and rhymes. The suggested approach for teaching tables is as follows:

Year 2 - 2 / 5 / 10

Year 3 - 2 / 4 / 8 (taught in that order and link them through doubling) then onto 3/6/9

Year 4 - 3 / 6 / 9 (taught in that order and link to double/treble) then 7 / 11 / 12

Years 5/6 - fluency with all and related facts e.g. 0.8×3 using 8×3 , place value.

Other resources like weekly speed grids (of increasing difficulty) and multiplication and division based interactive games should also be used outside of the maths lesson to aid children's rapid recall, especially in KS2.

Sumdog

All children have their own Sumdog account where they consolidate areas of the maths curriculum. Teachers will set practice tasks based on current learning for the children to access; this could be during lessons as well as homework. Children will carryout baseline assessments termly so that the content available

to them is personalised for them. Sumdog tasks may be used as part of the rotation teaching process in our mixed age classes whilst the teacher is working with one year group.

Impact

Assessment of EYFS

EYFS will be assessed through continuous observations against the Development Matters statements.

Termly Assessments - NFER/SATs

In line with practice across the BDMAT, children use NFER summative assessments at the end of each term. These help guide teachers with their planning and preparation as well as giving a focus on particular areas in which their class need to focus on. Analysis of these results will then inform teacher's intervention groups for their class.

Teachers are expected to mark their assessments themselves to inform future planning. The results are tracked and analysed systematically by staff. Question level analysis is also completed for arithmetic and this will link in to challenges outside of the lesson (interrupting the forgetting) to improve fluency.

Pupils in Y2 and Y6 use old SATs papers rather than NFER in preparation for their end of key stage assessments. In the summer term, pupils in these year groups will undertake the statutory assessments in line with Government guidance.

Year 4 Multiplication Tables Check

Teachers in Year 4 should ensure that pupils are fully prepared for the statutory MTC check which happens in June. Children will be given the opportunity to practise this using the 'Soundcheck' function of TTRockstars within school on multiple occasions during the school year. Data will be collected in preparation for this early in the Spring term and then interventions will be put in place using precision teaching in order to improve pupil's rapid recall.