TUTSHILL CHURCH OF ENGLAND SCHOOL

Mathematics Policy

'Love One Another, Know Ourselves, Believe and Grow'

Written: March 2024
Review: March 2026

Signed Headteacher……

Signed Committee chair……

Introduction

Our Curriculum focuses on ensuring that all our children have the best chance to achieve our Christian Vision; Love One Another, Know Ourselves, Believe and Grow.

Our School Vision is rooted in 1John 4:7 *'let us love one another, for love comes from God'.*

Tutshill C of E Primary School is an inclusive school where all people are valued and nurtured to flourish and become the best version of themselves and responsible members of God's family.

Curriculum Drivers

Throughout each subject that we teacher we want to ensure that children leave Tutshill School ready for the next chapter of their life. There for we want out children to:

- understand and use our school values
- be resilient and curious learners
- be globally aware
- be able to play a role in wider society

Subject intent

At Tutshill C. of E. Primary School we aim to provide a stimulating, challenging Mathematics Curriculum for our children, underpinned by the objectives set out in the EYFS Framework and National Curriculum of 2014.
We do this by:

- Following the White Rose Maths Curriculum alongside Power Maths Practice Books.
- Providing opportunities for fluency, reasoning and problem-solving through White Rose and Power Maths.
- Adopting the 'Do it, Twist it, Solve it, Prove it' approach. Linking this to our ABCDE model of learning which allows the children to understand how they learn and how to improve (metacognition).
- Employing the 4Cs approach to problem-solving which also develops skills in metacognition by allowing children to plan and monitor their own learning.
- Providing a Teaching for Mastery approach that is child-led without pre-conceived ideas of attainment and achievement to challenge all learners.
- Delivering a curriculum that represents Mathematics through concrete, pictorial and abstract representations encouraging deeper understanding of mathematical concepts.
- Emphasising the importance of 'Number Talk' – with a deliberate emphasis on key mathematical vocabulary to explain and reason.
- Creating real-life contexts for our Mathematics learning which increases the children's Global Awareness, understanding of the importance of maths within society and the wider world.
- Using our core Christian Values and key learning behaviours to overcome challenges and work effectively.

Legal Framework
This policy has due regard to statutory legislation and guidance including, but not limited to, the following:

- DfE (2013) 'National curriculum in England: Mathematics programmes of study'
- DfE (2023) 'Statutory framework for the Early Years Foundation Stage'
- Equalities Act 2010

Roles and Responsibilities
Governing Board

- Link Governor will meet with the subject leader to be able to understand the programme of study.

The Executive Headteacher is responsible for:

- Evaluating the overall quality of teaching, marking, feedback and assessments and the impact these have on pupils' learning.
- Identifying areas within school performance that require monitoring and evaluation.
- Ensuring that the data and observations taken from monitoring and evaluation are collated and analysed and are used in the review process.
- Ensuring that overall targets for staff and pupil performance are set and used to inform future planning for improvement.
- Monitoring the effectiveness and efficiency of systems that support pupils' wellbeing, e.g. pastoral care, social input
- Monitoring the quality of staff development.
- Undertaking direct observations of teaching staff to ensure teaching practices are in line with the school's curriculum, ethos and policies.
- Reporting to the Governing Board, staff and parents the findings of the monitoring process and how the information will be used to improve the school's overall performance.
- Consulting with the Governing Board, staff, parents and any external agencies to review and agree on strategies for school improvement.
- Reporting to the Governing Board regarding the effectiveness and implementation of action plans on a termly basis.

The Subject Leader is responsible for:

- Ensuring the coverage of their subject meets the requirements of the curriculum.
- Analysing and utilising the monitoring and evaluation data relevant to their subject area and using this to assist the SLT with future planning.
- Assisting the Executive Headteacher with creating action plans for their subject areas in line with the SDP.
- Reviewing their subject area's relevant policies on an annual basis.

- Reporting to the Governing Board on an annual basis regarding the progress made in their subject area – action plans or a request to present to the Governing Board
- Assisting the Executive Headteacher with their monitoring and evaluation duties as necessary, e.g. book looks, learning walks, and participating in reporting their findings to the Governing Board.
- Monitoring, evaluating and reviewing the targets set for pupils as a group and as individuals.
- Monitoring staff awareness of CPD, within their remit.
- Joint subject leaders that lead subjects in one school within the federation will be given joint time to work together to complete the above.
- Single subject leader, leading across the federation will be required to attend both sites.
- To fulfil the duties of subject leadership across the federation, staff can work remotely or at the school.

The classroom teacher is responsible for:

- Contributing to developing an accurate, evidence-based overview of the standards and quality of teaching and the learning environment.
- Using findings from monitoring and evaluation to take appropriate action to address their teaching performance.
- Summarising each pupils' progress on an annual basis and collating a report, which is made available to the pupils' parents.
- Attend termly Pupil Progress meetings with the Assessment Lead
- Setting targets for individual pupils, for groups of pupils and the class as a whole.
- Monitoring, evaluating and reviewing pupils' targets and ensuring these are in line with the pupil's EHC plan and liaise with the SENCO, where required.
- Discussing progress and targets with pupils and ensuring they are aware of the importance of continual improvement.
- Monitoring and evaluating the performance of early career teachers and teacher trainees.
- Undertaking pupil assessment activities as timetabled
- Maintaining class notes about pupils' performance and targets in a class overview file and making this available to subject leaders and the Executive Headteacher
- Reporting on pupils' progress at parents' evenings and in end of year reports.

The Specialist Educational Needs and Disabilities Co-ordinator (SENDCO) is responsible for:

- Reviewing the effectiveness and implementation of pupils' EHC plans.
- Participating in specific monitoring and evaluation duties to support pupils with SEND, e.g. book looks, learning walks, lesson visits
- Collating reports on pupils with SEND and ensuring these are made available to the Executive Headteacher and relevant professionals.
- Collaborative working across the federation
- Presenting a termly report to the Governing Board
- Ensuring that the correct level of support is given to pupils with SEND in line with their EHC plan.
- Supporting the Executive Headteacher in creating adverts and interviewing of SEND TA
- Organising annual reviews for pupils with SEND, including the reports made available to the parents of pupils with SEND.
- Working with the relevant teaching staff to monitor and evaluate the progression and performance of pupils with SEND.
- Keeping up-to-date with the latest updates in the sector relating to SEND.

The Curriculum
Early Years Foundation Stage

Mathematics in EYFS is delivered through the Early Learning Goals Number and Numerical Pattern. In addition, our EYFS Curriculum includes rich opportunities for children to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures.

National Curriculum

The curriculum is delivered following the White Rose Scheme.

• In Key Stage 1, the principal focus of mathematics teaching is to ensure that pupils develop confidence and mental fluency with whole numbers, counting and place value. This should involve working with numerals, words and the four operations, including with practical resources [for example, concrete objects and measuring tools]. At this stage, pupils should develop their ability to recognise, describe, draw, compare and sort different shapes and use the related vocabulary. Teaching should also involve using a range of measures to describe and compare different quantities such as length, mass, capacity/volume, time and money. By the end of Year 2, pupils should know the number bonds to 20 and be precise in using and understanding place value. An emphasis on practice at this early stage will aid fluency. Pupils should read and spell mathematical vocabulary, at a level consistent with their increasing word reading and spelling knowledge at key stage 1.
• In Lower Key Stage 2, the principal focus of mathematics teaching is to ensure that pupils become increasingly fluent with whole numbers and the four operations, including number facts and the concept of place value. This should ensure that pupils develop efficient written and mental methods and perform calculations accurately with increasingly large whole numbers. At this stage, pupils

should develop their ability to solve a range of problems, including with simple fractions and decimal place value. Teaching should also ensure that pupils draw with increasing accuracy and develop mathematical reasoning so they can analyse shapes and their properties, and confidently describe the relationships between them. It should ensure that they can use measuring instruments with accuracy and make connections between measure and number. By the end of Year 4, pupils should have memorised their multiplication tables up to and including the 12 multiplication table and show precision and fluency in their work. Pupils should read and spell mathematical vocabulary correctly and confidently, using their growing word reading knowledge and their knowledge of spelling.

• In Upper Key Stage 2, the principal focus of mathematics teaching is to ensure that pupils extend their understanding of the number system and place value to include larger integers. This should develop the connections that pupils make between multiplication and division with fractions, decimals, percentages and ratio. At this stage, pupils should develop their ability to solve a wider range of problems, including increasingly complex properties of numbers and arithmetic, and problems demanding efficient written and mental methods of calculation. With this foundation in arithmetic, pupils are introduced to the language of algebra as a means for solving a variety of problems. Teaching in geometry and measures should consolidate and extend knowledge developed in number. Teaching should also ensure that pupils classify shapes with increasingly complex geometric properties and that they learn the vocabulary they need to describe them. By the end of Year 6, pupils should be fluent in written methods for all four operations, including long multiplication and division, and in working with fractions, decimals and percentages. Pupils should read, spell and pronounce mathematical vocabulary correctly.

Subject Implementation

Teaching and Learning

- We provide two Maths sessions daily which include a full Mathematics lesson and a Mini-Maths session or Number Talk session.
- Our Mini Maths Meetings focus on key skills and related vocabulary. This session may also be used to deepen understanding of concepts taught in Maths lessons and also address misconceptions. Number talk sessions focus on the use of key vocabulary to explain ideas/ methods/ reasoning.
- Maths sessions include a balance of Fluency (Do it), Reasoning (Twist it) Problem-solving (Solve it). Children use key learning behaviours in order to: take risks by challenging themselves; problem-solve with curiosity; work co-operatively with learning buddies to share methods, ideas and approaches; use resilience and resourcefulness to overcome mistakes and misconceptions and use reflection and evaluation to celebrate and improve on their learning. These learning behaviours are underpinned by our Christian values of Respect, Responsibility, Creativity, Courage and Perseverance.
- The use of concrete resources including Numicon, Base10 and place value counters and pictorial representations (paper-based and digital) are used to help learners understand the structure of the Maths they are learning.
- The ‘4Cs approach’ encourages children to ‘Consider’, ‘Construct’, ‘Calculate’ then ‘Check’ when problem-solving. This helps to develop the link between pictorial and abstract and a deeper understanding of mathematical concept.

- We use Power Maths Practice Books which are affiliated with the White Rose Mathematics Curriculum. In addition to this, jotters can be used in order to provide opportunities for further support or challenge

Assessment and reporting

Throughout the year, teachers will plan on-going assessment opportunities using our assessment program Maths.co.uk in order to gauge whether pupils have achieved the key assessment criteria.

- Assessment in mathematics is based upon knowledge and understanding shown in both maths sessions and summative assessment.
- Formative assessment, which is carried out informally throughout the year, enables teachers to identify pupils' understanding of subjects and informs their immediate lesson planning.
- In terms of summative assessments, the results of end of year assessments will be passed to relevant members of staff, such as the pupil's future teacher.
- Parents will be provided with a written report about their child's progress during the summer term every year.
- Verbal reports can be provided at parental consultations during the Autumn and Spring terms.
- Pupils with special educational needs and disabilities (SEND) will be monitored by the special educational needs coordinator.

<u>Assessment will take place through the following ways:</u>

1. Formative assessment tasks take many forms including individual work, teacher observation, mental and oral questions, practical and written tasks.
2. Maths.co.uk tasks end of unit tasks are used as appropriate to inform teacher assessment.
3. Children in Year 2 take Optional KS1 National Tests.
4. Children in Year 6 take KS2 National Tests.
5. Use of an online assessment program to track children's achievement and understanding through the year. This information is used to inform teacher assessment, planning and teaching
6. Targets set for individuals/groups/classes, as appropriate.
7. Homework tasks.
8. Assessment in EYFS through Early Learning Goals and Baseline assessment.
9. Assessment tracked using INSIGHT.

Health and Safety

All staff will act in accordance with the schools Health and Safety policy.
Staff immediately will report any concerns to the Office Manager and Executive Headteacher, Deputy Headteacher in Head's absence.
Specific risk assessments are completed when required eg, outdoor learning activities, visits or visitors to school.

- All pupils will have access to the mathematics curriculum, including practical experiments.

- Gender, learning ability, physical ability, ethnicity, linguistic ability, cultural circumstances and/or any other factors, will not impede pupils from accessing all mathematics lessons.
- Where it is inappropriate for a pupil to participate in a lesson because of reasons related to any of the factors outlined above, the lessons will be adapted to meet the pupil's needs and alternative arrangements involving extra support will be provided where necessary.
- All efforts will be made to ensure that cultural and gender differences will be positively reflected in all lessons and teaching materials used.
- We aim to provide more academically able pupils with the opportunity to extend their mathematical thinking through extension activities such as problem solving, investigative work and research of a mathematical nature.

Subject Impact

- Children are confident, engaged, challenged and enjoy their Mathematics learning
- Children use key mathematical vocabulary with confidence to explain ideas, methods and reasoning
- Attainment in Mathematics at the end of Key Stage One and Two is consistently above the national average.