



'We use maths every single day of our life' Niamh, Year 4

The national curriculum for mathematics intends to ensure that all pupils:

1. Become fluent in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately
2. Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
3. Can solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication, including breaking down problems into a series of simpler steps and persevering in seeking solutions Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. The programmes of study are, by necessity, organised into apparently distinct domains, but pupils should make rich connections across mathematical ideas to develop fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

They should also apply their mathematical knowledge to science and other subjects.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress should always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly should be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

Our School Vision - We have agreed that, together, we will strive to ensure that we: 'Achieve, Believe, Care' whilst we 'Love and respect ourselves, others and God's world.' Our vision permeates all aspects of school life and is supported by the Christian values we teach. At the heart of our vision is our commitment to serving with Grace, we will give our very best to our school communities, and every individual within our communities, adult and child alike. 'Grace is a gift from God.' (Ephesians 2:8).

Intent - At Tibberton and Hindlip C of E First Schools we see mathematics as a key life skill and we aim to create confident and inquisitive mathematicians.

We intend to ensure that:

- Our children have access to a high quality maths curriculum that is both challenging and enjoyable.
- Provide our children with a variety of mathematical opportunities, which will enable them to make the connections in learning needed to enjoy greater depth in learning.
- Ensure children are confident mathematicians who are not afraid to take risks.
- Fully develop independent learners with inquisitive minds who have secure mathematical foundations and an interest in self-improvement.

We follow the National Curriculum 2014 and we provide all of our children with opportunity to:

- Fluently recall and use the basics of mathematics, including learning times tables, number bonds, number facts and their relationships
- Talk and think mathematically - describing, explaining, convincing, justifying and proving
- Solve problems by applying their basic skills with independence, including breaking down problems into a series of simpler steps and persevering in seeking solutions.

Our curriculum is planned for them to be able to build on prior learning and make links across the aspects of Mathematics. The progression of skills is planned using National Curriculum 2014 requirements - **see Mathematics progression skills map**. We also pay regard to the Calculation Policy that has been constructed as a Pyramid of school in the Droitwich area. This document sets out the way children should solve all four calculations and this policy shows the progression throughout year groups of primary education. This works to ensure consistency in offer as the children transition through their school career in the three tier system.

Implementation - At Tibberton and Hindlip C of E First Schools, we work to achieve our intention by delivering exciting and engaging daily maths sessions that are appropriately modelled to give enough support whilst ensuring challenge. We believe it is crucial that all groups and abilities of learners feel success and demonstrate security in the skills they are practising and applying.

Along with what we offer at school, we know that any reinforcement of skills at home, benefit the children greatly and links to a range of websites and support can be found in the Useful Links tab.

Maths skills are developed through working towards secure understanding of the curriculum subject. Planning is structured through a numbers of stages:

1. Long term: Using the statutory requirements of the National Curriculum and Development Matters.
2. Medium term: Yearly overview, up-dated annually in response to data and in house monitoring of teaching & learning.
3. Short term: - Daily lessons include a clear lesson intention 'TO' and clear success criteria 'Steps to Success'. - Daily lessons are taught in 3 parts: Starter (Fluency/recall), main teaching with application activity & plenary. Through this stage we incorporate the Teaching Cycle (Teach, Practice, Apply and Review/Assess). - Short term planning is supported by the use of the White Rose Maths Hub materials and pays regard to the calculation policy.

Teaching: 'Quality first teaching' linked to teaching standards, we expect that 'All teachers':

1. 'Know where their children are' through the use of concise summative assessment, prior learning, assessment, maths talk
2. 'Understand where their children need to be' through a secure understanding of year group expectations and/or pre key stage expectations and incisive, ongoing, formative assessment
3. 'Know how they are going to get them there' through the use of a range of strategies to promote independence, mastery and high expectations of ALL.
4. Effectively deploy adults, specifically during introductions, plenaries & catch-up sessions
5. Plan for progression during and between lessons.

Learning: 'Quality first learning' we work as a team to ensure all of our children:

Are school ready, feel safe & secure are supported by effective classroom routines, are emerged in an engaging environment, have a clear understanding of the high expectations set for them and have high expectations of themselves.

Specifically in Mathematics we work to ensure that children are:

- Confident in their mathematical learning
- Feel ready and excited to be challenged
- Are independent learners
- are effective critical friends

- As we are aware that speed recall and fluency of facts is an area for development in our school, we use Times Table Rock Stars with children from Year 2- 4 to allow practise of their skills. Use also have an in school system of 'Maths Club' where a weekly activity children practise their speed recall. They need to get 100% in 5 minutes or less 3 weeks in a row to make the next level. Year 1 and 2 focus on recall of bonds to 10 and 20 respectively and Years 3 and 4, times table recall.

Impact

The Maths curriculum is evaluated through:

- Regular checks on the Maths sequences being taught, along with the quality of written work in Maths and curriculum books is evaluated by learning walks, drop ins, pupil conversations and work and planning scrutiny.
- Summative assessment occurs at the end of the year in Year 3 and 4 using PUMA test materials that provide standardised data. This was also used as a baseline in September 2020 following lock down and return to school. Teacher assessment judgments are made termly and reported to the Executive Head teacher. The analysis of this used to identify areas of development and any children who are not making expected progress.
- Judgements are moderated in house and once externally with our pyramid of schools. Unless the teacher wishes to moderate with the Maths lead more frequently.

Assessment:

- Summative/reported - PUMA Standardisation (Y3 - Y4) end of year. We carry out SATs in Year 2 and Times Tables Check in Year 4.
- Summative/ diagnostic - White Rose
- Formative / ongoing - * See Marking, Assessment & Feedback policy
- Prior & Post learning - informs future planning, demonstrates progress in books, celebrates effort and achievement.
KS1 outcomes have been moderated by external moderators -in 2016. The outcome was that the 'Local Authority Moderator agreed with the Teacher Assessment judgements.

Tibberton Data outcomes	Hindlip Data outcomes
EYFS GLD:	EYFS GLD:
2018 (88%)	2018 (80%)
2019 (77%) National: (72%)	2019 (86%) National: (72%)
KS1	KS1
2018 14 pupils (86%)	2018 14 pupils (95%)
2019 17 pupils (82%) National (76%)	2019 17 pupils (80%) National (76%)
KS1 Maths GD	KS1 Maths GD
2018 14 pupils school (36%)	2018 14 pupils school (42%)
2019 17 pupils school (41%) National (22%)	2019 17 pupils school (20%) National (22%)