



Ireby Church of England Primary School

Mathematics

Signed by:

_____  _____ Head Teacher

Date: 2nd October 2022

Next review date: October 2024 or sooner if required

School Governance:

Responsibility of the school leadership

Mathematics

Christian vision: 'Created to do Good' Ephesians 2:10

By instilling our values through our learning and play, it is our hope that our children develop a deeper understanding of themselves and the world around them. We want our children to know that they are part of our local, national and global community and that, in their own way, they can help to make our world better place.

Our Aim

To build children's mathematical skills and knowledge towards specific '**end points**' at each key stage of their learning, and commit this learning to their long-term memory, enabling them to know more and do more and fulfil our Christian vision of being healthy, active citizens who can contribute positively to making our world a better place both during their time at Ireby and beyond.

Intent

By the time they leave Ireby Church of England primary, we want our children to be confident mathematicians, to have developed a maths fluency and be able to apply skills to reason and solve problems.

The National Curriculum sequences out the expectation and structure for each key stage in the primary phase. We have also created a maths curriculum Progression document to make it clear which objectives each year group will be covering, and a maths vocabulary progression document that clearly shows the new vocabulary that will be introduced and used in each year group.

Our maths curriculum allows our children to be able to use their maths knowledge across other areas of the curriculum, to have a wider sense of number and to be able to solve problems using practical mathematical skills and oral and written reasoning. They will be able to use and apply their maths skills in different environments, preparing them for the next stages of their education and then adult life.

Implementation

- We have 5 one-hour lessons per week (1 per day)
- In addition, we also have 60 additional minutes timetabled each week (2 30 minute sessions) to support the teaching of arithmetic. This allows our children to embed mental and calculation skills (see our calculation policy) required to achieve mathematical fluency and confidence.
- Prior to a mathematical unit being taught, children have a short written assessment of their skills (pre-assessment) which allows teachers to adapt their planning to meet the needs of the children. The outcomes of these assessments are used to explicitly inform groups and individuals of the improvements they need to make.

- The same assessments are then revisited at the end of a unit and improvements made in purple pens and teachers can monitor the impact of their teaching (see impact)
- Maths lessons are taught as per our [curriculum intent, implementation and impact policy](#). They are thoughtful, calm, full of discussion and time for independent reflection. Teachers model expectations clearly and children are then clear on how to present work in their books.
- There is plenty of opportunity for the development of mental and calculation strategies.
- Clear learning objectives are shared and discussed throughout the lesson.
- AFL is used throughout lessons in order to assess children's understanding of the concepts. Examples may showing working out on whiteboards, discussions, explanations, saying the answer at the same time and of course live marking and feedback. Through using these techniques, teachers are able to support children and provide for their needs.
- Marking is completed as per our policy with LO's highlighted green when there is sufficient evidence that it has been met.
- We also carry out half-termly assessments in order to ensure that skills are embedded over time.
- Cross-curricular opportunities to use and apply maths are planned and implemented where appropriate, eg in Science, DT, art, geography, history, etc.
- Maths teaching is also supported by the on-line teaching tool, Mathletics, which allows teachers to set specific interventions or focussed work for each pupil. This tool gives teachers information on the children's thinking which they can use to inform their teaching.
- Times tables are a focus in every year group, with the aim of children achieving the national standard by the end of year 4 and knowing all times tables by heart by the end of year 6.

Implementation of maths will be in-line with our [Curriculum intent, implementation and impact policy](#).

Impact

- We know that our maths curriculum is having an impact due to the work produced by children in their books, the opportunities they are given and the engagement of children in the subject.
- Daily marking against the learning objective ensure children meet the curriculum requirements each day.
- Unit assessments (pre and post) demonstrate clear progress and children speak to us about the improvements they have made.

- Half-termly assessments ensure skills are being committed to memory.
- Pupil Voice is carried out by governors and staff each term to ensure children show their feelings, confidence and engagement in maths.
- All pupils will have made at least expected standards and progress in national tests.

Timetabling and organisation

EYFS and Key Stage 1 are taught in their class, Key Stage 2 are taught as Lower Key Stage 2 (Year 3 and 4) and Upper Key Stage 2 (Year 5 and 6).

In EYFS, Key Stage 1 and 2, the maths curriculum is delivered through five one-hour lessons per week. Maths is focussed on:

- Number and Place Value
- Number: Addition and subtraction
- Number: Multiplication and division
- Number: Fractions, including decimals from Year 4 and percentages at Year 5
- Measurement
- Geometry: The properties of shapes
- Geometry: Position and direction
- Statistics (Year 2 upwards)
- Ration and proportion (Year 6 only)
- Algebra (Year 6 only)

Maths is taught by qualified teachers and Teaching Assistants. We invest heavily in equipment and resources and continued professional development in order to ensure all lessons or interventions are delivered with impact. As a school we also use [Mathletics](#) to support children's learning.

The development of mathematical skills and knowledge are also supported across our curriculum. For example, collecting and analysing data in geography and science.

Our Curriculum design

Mathematics is planned on a one-rolling programme designed to repeat for two year groups i.e. Year 1 and 2, Year 3 and 4 and Year 5 and 6. Units are sequenced in order and are carefully designed to support our Christian vision and aims i.e to build knowledge and skills, commit these to memory and reach identified 'end points'.

As a school, we utilise Hamilton Trust materials to support our teaching. Hamilton Trust has been designed by [Professor Ruth Merttens](#) and is utilised across a large number of school across the United Kingdom.

Our termly overview provides a clear teaching order matched to these very useful criteria, as well as listing the all-important outcomes. The 2022 SATs were different in that, as many teachers observed, they linked apparently more directly to the Ready-to-Progress criteria than to some parts of the National Curriculum. The pace of teaching and learning is rather steadier and the focus is on building a robust understanding of key skills rather than teaching the harder written algorithms, such as long division, or the more difficult concepts, such as ratio.

Long term plans and Ready-To-Progress Criteria

[Reception LTP and R-T-P Criteria](#)

[Year 1 and 2 LTP and R-T-P Criteria](#)

[Year 3 and 4 LTP and R-T-P Criteria](#)

[Year 5 and 5 LTP and R-T-P Criteria](#)

Our mathematics curriculum supports every child to reach a required 'end point' or 'ready-to-progress' criteria by the end of each year group. These 'end points' reflect both the requirements of the National Curriculum 2014, and the needs of the children in our school context. Hamilton have linked every unit of teaching in our maths blocks to the **Ready-to-Progress criteria**.

Teachers who had drawn heavily on the Ready-to-Progress criteria to prioritise planning for learning will have been happy to think that this enabled their children to succeed in this year's national assessments.

Click on the links below to find out more:

Monitoring and evaluation of effectiveness of this policy

The headteacher and maths subject leader are responsible for monitoring and evaluating the effectiveness of this policy towards meeting our stated vision and aims. This will be achieved through:

Activity	Frequency
Lesson observations	Our maths leader will sample maths lessons during the year
Pupil voice	Samples on mathematics during year
Collecting and evaluating summative assessment	Termly Teachers will review learning towards 'end points' and record data on Scholarpack for evaluation by the subject leader

The role of governors

Our governors determine, support, monitor and review the school's approach to teaching and learning. In particular they:

- support the use of appropriate teaching strategies by allocating resources effectively;
- ensure that the school buildings and premises are used optimally to support teaching and learning;
- check teaching methods in the light of health and safety regulations;
- seek to ensure that our staff development and our performance management both promote good-quality teaching;
- monitor the effectiveness of the school's teaching and learning approaches through the school's self-review processes, which include reports from the headteacher, senior leaders and subject leaders, and a review of the continuing professional development of staff.

Monitoring and review of this policy

Senior leaders monitor the school's Mathematics Policy so that we can take account of new initiatives and research or any changes in the maths curriculum, developments in technology or changes to the physical environment of the school. We will therefore review this policy every three years or sooner if required.