



Water Orton Primary School – Maths Policy

Intent:

At Water Orton Primary School, we encourage children to become confident and competent mathematicians, equipping them with essential skills for life that can be applied to a wide range of contexts. Teachers deliver maths content with enthusiasm to foster a love of the subject, recognising mathematics as a set of creative and highly inter-connected skills that has developed over centuries to solve some of history's most intriguing problems.

Mathematics is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. A high-quality mathematics education provides a foundation for understanding the world, reasoning mathematically, and appreciating the beauty, power and enjoyment of mathematics (National Curriculum 2014).

We recognise the importance of taking a consistent whole-school approach to the teaching of maths in order to close gaps and enable the highest possible number of children to attain the expected standard or higher. Our aim is for all children to develop enquiring minds and use their mathematical skills to make sense of the world through rich life experiences. We want them to build confidence, resilience and fluency, applying reasoning to solve problems and recognising that maths surrounds them in daily life. This will be achieved through the teaching of a balanced and progressive curriculum, where pupils make rich connections across mathematical ideas to develop fluency, reasoning and competence in tackling increasingly sophisticated problems.

Through our teaching of maths, we aim to ensure that all children:

- 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
- **reason mathematically** by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language
- 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

We aim to provide a stimulating and exciting learning environment that takes account of different learning styles and uses appropriate resources to maximise teaching & learning.

Implementation:

Long-Term Planning

- All phase teams will have a Long-Term Plan that outlines the maths curriculum coverage for each term. Teachers with mixed classes should be exposing their class to both year

groups' objectives but differentiating accordingly and grouping similar objectives together. The Long-Term Plan must match the White Rose Maths overview.

Medium Term Planning

- Our medium term plans should be the first port of call when planning to ensure complete coverage of all the objectives throughout the year. Our medium term plans are the schemes of work from White Rose Maths. These include the objectives, broken down into 'small steps'.

Short Term Plans

- Must be completed in presentation format e.g. PowerPoint. Lessons should follow the 4-part structure (anchor & review, guided practice/tasks, intelligent practice & application and reflection). As part of this structure Key Stage 2 have included a fluency slide as part of the intelligent practice and application stage of their lessons. This is to provide an opportunity to explore the skill the children are learning and apply this to quick fire questions. Then as they progress through this stage they will complete a variety of question styles with different representations and structures.
- There may be the occasional lesson which is organised in a different way if it is more appropriate, including practical lessons using a range of manipulatives. Teachers will plan using the concrete-pictorial-abstract approach where possible/appropriate. Planning will also include a good balance of fluency work, reasoning tasks and problems.
- In Key Stage 2, one lesson per week will be dedicated solely to calculation/arithmetic.
- Teachers will use the mathematical vocabulary used in the White Rose Maths scheme but may use resources from a variety of sources.

Within the daily mathematics lesson, teachers have a responsibility to not only support to lower attaining children, children with SEND and children who struggle but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability, this will include a range of challenges that the children independently choose.

Extra support for maths:

Teaching assistants are placed in classes where the need is greatest. Those children who are identified as SEND for Maths are closely monitored by their class teacher and our school SENCO/inclusion manager. For some children, regular intervention teaching will be put in place. In class, children can be supported in various ways, including through adult support, additional resources, adapted work etc. Teachers may also feel it appropriate to arrange one-off or blocks of intervention e.g. booster sessions, small group work, tutoring to support children. To support children who have complex needs we also have access to schemes and resources such as Maths for Life. This provides children the hands-on experience they need to develop their understanding. This is similar to the Maths lessons taught in the **Evergreen Resource Provision**, where the children have a White Rose Maths introduction and then resources and hands on activities are used to support the children's understanding.

Timestables:

Times tables will be taught in Year 2 (2, 5 and 10-times tables), Year 3 (3, 4 and 8-times tables) and Year 4 (remaining times tables up to 12 x 12) as part of maths lessons during the multiplication and division teaching units and Times Tables Rock Stars will be used as a practice tool. An average of three Times Table Rock Stars practice sessions will be carried out each week in Key Stage 2 and children will be encouraged to practise online at home. Teachers will ensure all children complete a 'TTRS 100 Grid' at the end of each half term after a 'Gig' is completed on TTRS as this will analyse what timestables the children know and what timestables the children need to work on.

At the end of each term teachers choose a '**timestables champion**' who receives a certificate and treat along with their photo taken for class dojo and our Maths display board. There are also a range of tournaments and competitions through Timestable Rockstars for children, staff and other schools to compete against each other.

Impact

The impact of maths teaching and learning is monitored throughout the academic year in the following ways:

- Marking of books
- Children's verbal responses
- Informal observations/learning walks
- Monitoring of books
- Pupil voice discussions
- Years 3, 4 and 5 complete summative assessment through NFER papers.
- Year 4 will complete Timetables assessments and we will use Timetable Rockstars to support this learning throughout the school.
- Year 6 complete past papers and then SATs in May of each year.
- Summative NFER Analysis of pupil progress and attainment (using Sonar) in order to identify underachievement for individuals or groups of children (termly) and plan

Regular, ongoing and accurate class teacher assessment is used to inform next steps in planning and ensure that all children make progress. Verbal feedback is used to give children instant feedback.