



Academic Year 2023 - 2024

Intent for the Teaching of Mathematics

At Eastfield, we teach maths to all children, whatever their ability and individual needs. Through our maths teaching, we provide learning opportunities that enable all pupils to make good or accelerated progress. We strive to meet the needs of all pupils and we take all reasonable steps to achieve this.

During a child's mathematical journey at Eastfield, they develop a deep and conceptual understanding through a high-quality mathematics curriculum. Where possible, links have been made to other subjects.

We want children to:

1. Be fluent; perform mathematical problems accurately and quickly reflecting on the method they have chosen.
2. Reason mathematically; make generalisations, develop an argument or justifications to share their thinking.
3. Solve problems by applying their mathematical knowledge with increasing confidence.

We provide opportunities for children to recognise the importance of maths in the wider world to ensure that they can apply their skills in a range of different contexts. We want all children to leave our school with a passion and positive mindset for the subject.



Implementation of Mathematics

Foundation

In EYFS, we use the NCETM's 'Mastering Number' programme to ensure all our children develop a good understanding of number and numerical patterns. These sessions are 30 minutes every day and the teachers and other adults will use Rekenreks, along with other concrete resources, to teach children. In addition to this, children have access to Maths learning, during outdoor provision, this will enhance their learning from the day's Mastering Number sessions or focus on a new area. Teachers will use assessment to plan this, according to the needs of their class.

Year 1 – 6

We teach Maths through a Mastery approach, incorporating all 'five big ideas.' These are as follows: fluency, mathematical thinking, representation and structure and variation; coherence (small steps) are a running thread throughout. Therefore, as a school we ensure we teach in small steps to allow a strong and secure understanding of mathematical concepts that children can confidently reason and problem solve with accordingly.

All year groups have an hour lesson of mathematics each day. In addition, year 1 and 2 use the NCETM's 'Mastering Number' programme to ensure all our children develop a good understanding of number and place value. These sessions are 20 minutes every day, to teach children. Year 3 – 6 will have a half an hour of Maths, after lunch, focusing on fluency in the first instance.

Planning (Years 1 – 6)

We carry out curriculum planning in mathematics in three phases (long-term, medium-term and short-term).

Our LTP, details the order in which our units should be taught. Most areas in Mathematics are interlinked, therefore not all areas appear on the LTP; links have been made where possible.

The MTP for KS1 has been written by the Maths Lead (Mrs Lebbon) and cross references the teaching steps as outlined in the NCTEM PD materials to ensure a consistent approach across school. Teachers are currently using the Professional Development materials from the NCTEM to plan small coherent steps and to improve their own subject knowledge.

STP is carried out by teachers using PowerPoint, Smart Notebook. Teachers will plan their lessons according to the small steps explained in the PD materials. Teacher's will consistently use manipulatives



and mathematical talk to embed children's understanding. This will ensure that all children get the opportunity to reach their potential. The mathematical strategies taught are highlighted in the school's Calculation Policy.

Daily Learning

All classes have an hour Maths lesson, which is outlined below:

Lessons start with a clear WALT (we are learning to) and WILF (what I'm looking for) for the lesson. Children will reflect on their learning from yesterday, this will be the starting block for the new learning. Adults will model the learning using a variety of manipulatives and will continually ask open questions throughout to embed understanding. Children will be exposed to learning activities (independent learning tasks) during the lesson, this will vary due to the children's understanding or the new learning that is taking place. Adults will consistently use assessment for learning. Adults will model the correct use of mathematical language and encourage pupils to use this throughout every lesson. The terminology and examples will be displayed clearly on working walls in classrooms. This ensures that displays stay relevant. All children will be taught the same, excluding the children who have specific needs in maths. Adults will pre-teach children who struggle with a specific area, for instance, if the learning is area, the pre-teach will be around multiplication or addition, not the focus of the learning. All classes have an extra adult in their classroom. These adults will target primarily pupil premium children to ensure that the attainment gap closes. All children will sit in mixed ability seats, with exception to those children with specific needs. This encourages peer support for some and allows all children to discuss mathematical strategies, therefore embedding their understanding. Children will be challenged through key questioning by adults; therefore, differentiation is mainly achieved through outcome.

In addition to this hour, after lunch, all children partake in Mastering Number (KSI) or a daily fluency lesson for 30 minutes. This is planned by the class teacher and meets the needs of the teacher's class. Any recording is completed in the back of the books.

Displays

Teachers have a maths-working wall for their classroom display. Teachers use it as a reference whilst teaching and pupils should find it useful when working on maths activities, consequently the working wall should always be amended and adapted according to the learning taking place in the classroom. All classrooms have a set of headings to use when displaying prompts and / or key mathematical language on the display board. Vocabulary and methods are added to the display when children are taught about the topic. The headings reinforce our calculation policy and our approach to teaching



mathematics (concrete, pictorial and abstract). Please refer to the display policy for further information.

Fluency

In Autumn term, Year 1 children will calculate 1 more and 1 less than a given number, within 5 minutes to aid fluency. As they progress into Spring term, children will complete the 55 facts pyramid (number bonds to 20, without crossing the 10s) within 5 minutes. In Year 2, children will complete the 55 facts pyramid (number bonds to 20) within 3 minutes. Teachers will record the children's results each week and ensure that children's scores are improving.

Children, in year 3 upwards, get tested weekly on their times tables, appropriate to their learning needs / year group. This will be provided by TTRockstars. In addition, the last 5 minutes of the school day, children will be practising their times tables via games such as Zap or Beat the Teacher. Year 2 will use the -2, -5, and -10 times tables sheet from TTRS, to practice their recall of the 2-, 5- and 10-times tables in the Summer term.

Every term will have a competition across year 1 – year 6 to see which class can recall the most facts. This encourages children to learn the key facts for their year group and adds a competitive element. The class who wins, gets a class certificate and a small prize each.

Children will in KS2 will start their afternoon learning with a half an hour fluency session. In the first instance, this will be used to practise previous formal and informal strategies learnt in the previous year group. This will continue over the course of the academic year.

Resources (including online)

There are a range of resources to support the teaching of maths across the school. All classrooms have a wide range of appropriate concrete resources. ALL children should have access to these resources to become fluent in a mathematical concept. All other larger mathematical resources (such as weighing scales, shapes, metre sticks etc.) are available upstairs from a central resources room. Children in years 3 – 6 have access to 'TTRockstars'. Teachers use this resource during school hours to reinforce quick recall of their times tables and children will access this at home too. More detailed information concerning specific programs and their focus can be found in the school's Information and Communication Technology Policy. (See ELearning/Computing Policy)

Assessment

At Eastfield Primary we are continually assessing our pupils and recording their progress against the end of year expectations. We use assessment as an integral part of the teaching process and endeavour to make our assessment purposeful, allowing us to match work to the needs of the pupils,



thus benefiting the pupils and ensuring progress. Assessment is carried out on three levels. In short term, teachers will carry out continuous assessment of children's progress and daily lessons are adapted depending on the needs of the class. Such assessment will be formative: progress with specific skills or objectives will be assessed with a view to informing the teaching and learning subsequently appropriate for the children. Each term teachers assess their class's progress as to whether they are 'on track to meet the end of year age related expectations/ EXS', 'Greater depth/ GDS', 'Working towards / WTS' or 'below / BLW' against end of year expectations. At each of these points data is analysed to highlight areas of strength and weakness. Pupils making insufficient progress are identified as target groups, which is usually in the form of additional support sessions outside the daily lesson.

There are several statutory assessments, which we use. Foundation Stage assess using the Early Years Profile mathematical development statements. Year 4 use the multiplication check, which ensures the child is fluent in their 12 times tables (this is an end of year expectation in year 4). Year 6 use National Tests, known as SATs, and if they achieve a standardised score, on the test, of 100+, they are EXS.

Eastfield Primary School reports results and progress in mathematics to several agencies. End of Key Stage Assessments are reported to DfE and Wolverhampton LA and all assessments are shared with staff and governors of the school. Parents receive a detailed annual report on their child's progress in Maths.



Impact

The impact of a high – quality curriculum in maths is assessed through summative and formative assessment. Quality first teaching means that adults intervene quickly and assess the learning occurring in their classroom and make amendments.

We use internal data termly for teachers and leaders to reflect on every pupil. Children complete PUMA tests or LA baselines termly, these give adults a standardised score, this can support the teacher's judgement or create a professional discussion, with a member of SLT (senior leadership team), about the child's needs. Using this data, teachers make amendments to planning based on this and leaders may plan interventions if accelerated progress is needed.

As a school, we moderate children's work in house and with others in our local area. These professional discussions are vital for teachers and as a whole school.

All the above is monitored through lesson drop ins and during pupil progress meetings.