Horizon Academy Trust
Where anything is possible

Mathematics Policy

East Park Primary School

Respect, grow, believe and achieve together

Member of staff responsible:

Mrs Jo Davis and Mrs Sonia Atkinson

MATHEMATICS POLICY

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1. MISSION STATEMENT

All decision making at East Park Primary School is informed by the desire to raise:
Standards of achievement
The quality of teaching and learning
The continued personal development of pupils and staff
To enjoy learning, working and being together

EQUAL OPPORTUNITIES STATEMENT

At East Park Primary we ensure that all pupils have equal access to the full range of educational opportunities provided. We do not discriminate against anyone on the grounds of their protected characteristics. We are dedicated to promoting equality of opportunity and eliminating all forms of discrimination, in line with the Equality Act 2010.

This policy also needs to be in line with other school polices and therefore should be read in conjunction with the following school policies:
Teaching and Learning Policy Phonics Policy
Handwriting Policy Assessment Policy Feedback Monitoring policy
Marking and Feedback policy
Special Educational Needs Policy Inclusion Policy
ICT Policy
Disabilities and Equal Opportunities Policy
Health and Safety Policy
Online safety Policy
Safeguarding and Child Protection Policy
Educational visits Policy

2. INTENT, IMPLEMENTATION AND IMPACT

Mathematics Intent

Maths at East Park Primary School is informed by the National Curriculum and provides broad and balanced learning opportunities for our children that are ambitious, exciting and creative. Children become fluent in the fundamentals of Mathematics, are able to reason mathematically and can solve problems by applying their Mathematics. At East Park Primary School these skills are embedded within Maths lessons and developed consistently over time. We are committed to ensuring that children are able to recognise the importance of Maths in the wider world and that they are also able to use their mathematical skills and knowledge confidently in their lives in a range of different contexts.

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.

In line with the National Curriculum 2014, our curriculum is carefully planned and structured to ensure that current learning is linked to previous learning. 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.

Mathematics Implementation

From the beginnings of maths teaching, in our EYFS, children are exposed to mathematical talk and have lots of opportunities to explore mathematical concepts showing the interconnection to the seven areas of learning and development.

We build strong learning blocks within 'Number'. The children develop a deep understanding of numbers to 10; including the composition of each number, subitising and automatic recall. Within 'Numerical Patterns' the understanding of pattern, quantities and distribution is widely explored. Spatial reasoning is integrated into the teaching and learning of Maths through continuous provision.

The teaching of maths at East Park Primary School is carefully designed, planned and implemented to ensure that all pupils are challenged to fulfil their potential. We follow the National Curriculum and use the White Rose Schemes of Work as a guide to support teachers with their planning and assessment. Children are taught through targeted adapted, small group and mixed ability whole class lessons. Maths lessons are rich in resources, vocabulary, questioning and content, enabling them to develop the skills of mastery within the objectives of the National Curriculum.

Maths lessons are taught discretely to give depth and breadth to the curriculum area. The journey of a Maths lesson is designed to build on prior knowledge and is underpinned by basic skills. Small steps are used to deepen the children's understanding of mathematical ideas. Each lesson begins with planned opportunities to practise counting and arithmetic. Through guided practice, prior learning and/or key skills are revisited and reinforced. Maths is taught through the concepts of fluency, reasoning and problem solving allowing for challenge and to further deepen learning and understanding. At the end of a Mathematics topic, the children will complete an End of Block Post-Assessment to inform gaps and allow for planned intervention. Pupils are taught to make links between the three approaches to learning. Pupils learn concepts through the use of: concrete resources (manipulatives), pictorial representations and then move into the abstract.

Mathematics Impact

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 to demonstrate their deeper understanding of a concept. Those who are not sufficiently fluent with earlier material should consolidate their understanding, including through additional practice, before moving on.

The impact of the maths curriculum is measured through book scrutiny, subject specific learning walks, lesson observations, teacher and pupil discussions and data analysis. The

results from both formative and summative assessments are then used to determine children's progress and attainment. Data collection is made at various points over the academic year.

As a result of Maths teaching at East Park Primary school, children become confident mathematicians who are challenged and can talk about Maths and their learning. They can make links between Mathematical topics and are ready for the next stage in their mathematical journey.

3. STATUTORY REQUIREMENTS

THE GOVERNING BODY
Reports are made to the Governors on the progress of provision and to our MATHEMATICS Governor. A subject report is presented as part of the Head teachers report to the Governors.

4. PLANNING

Mathematics is a core subject in the National Curriculum, and East Park Primary use the New National Curriculum expectations as the basis for implementing the statutory requirements of the programme of study for Mathematics. The National Curriculum gives a detailed outline of what is to be taught in the long term, identifying the key objectives across each year group. East Park Primary follows the White Rose long-term planning structure and the class teacher plans and delivers their medium- and short-term planning using the White Rose small steps documents.

The Mathematics Leader's support in this planning stage and oversee progression across the curriculum. Class teachers plan appropriate tasks to deliver the objectives and adapt according to the needs of their pupils.

The Foundation Stage

Mathematics in the Foundation Stage is taught as an integral part of the school's work and we relate the Mathematical aspects of the children's work to the objectives set out in the EYFS which underpin the curriculum planning for children aged three to five. Children are given the opportunity to build strong mathematical foundations which will help them achieve further in their primary school journey.
Opportunities are provided to explore number, shape, measure, problem solving through a wide variety of activities and tasks. A supportive and encouraging

environment is created, in which pupils are able to risk take and learn by their mistakes. Children have rich and engaging experiences that foster a love of learning and a strong foundation for future mathematical success.

5. TEACHING AND LEARNING STYLE

At East Park Primary School, we value the teaching of Mathematics because:

- It is widely used in society both in the world of work and in everyday situations
- It can be used to represent or communicate, to predict, to explain and to verify
- It is interesting and valuable providing intellectual challenge.

In Mathematics lessons, the school uses a variety of teaching and learning styles. The principal aim is to develop children's basic mathematical skills, their understanding of mathematical concepts and their oral and written mathematical reasoning. This is done through a daily lesson that has whole-class and group-direct teaching alongside independent activities to demonstrate their understanding. During these lessons, children are encouraged to ask and discuss as well as answer mathematical questions. They have the opportunity to use a wide range of concrete resources, supported by visual representations and are encouraged to make use of sentence stems within their explanations. Children use ICT in Mathematics lessons to enhance their learning and to model and visualise their ideas.

Praise and reward are given for a pupil's efforts as well as achievements in order to encourage a positive attitude towards Mathematics. Feedback follows the school policy.

Intervention programmes and personalised short term intervention programmes are planned by the class teacher to ensure all children make sufficient and where possible accelerated progress.

6. FOUNDATION SKILLS

Staff to provide timely, precise feedback that reinforces taught mathematical concepts, number facts, calculation strategies, mathematical vocabulary and numerical fluency across the curriculum.

7. INCLUSION

Our Mathematics curriculum is ambitious, inclusive and designed to enable all pupils to achieve and thrive. We maintain high expectations for every pupil, recognising and responding to individual needs and barriers to learning. Through high-quality inclusive teaching, appropriate adaptations and reasonable adjustments, we ensure that all pupils

can access the curriculum, develop their knowledge and skills, and participate in learning. We regularly assess pupils' understanding, identify gaps and adapt our teaching to reduce barriers, promote independence and ensure that every pupil has the opportunity to succeed and feel a sense of belonging.

8. INTERVENTION

Intervention teaching takes place to ensure pupils make expected progress and more than expected progress. Intervention planning and groupings are based on teacher assessments. Same day intervention is used when and where necessary.

Children identified by the class teacher as those needing support (bottom 20%) are supported within the mathematics session and outside the mathematics session as appropriate.

9. LINKS WITH OTHER SUBJECTS

Mathematics does not stand alone in the curriculum; it is cross curricular. Learning maths concepts, using mathematical knowledge and skills through other areas stimulates and consolidates a grasp of abstract concepts and connections throughout the curriculum are encouraged.

10. EQUAL OPPORTUNITIES

East Park Primary School is committed to ensuring the active participation and progress of all children in their learning. All children will be given equal opportunities to achieve their best possible standard, whatever their current attainment and irrespective of gender, ethnic, social or cultural background, home language or any other aspect that could affect their participation or the progress of which they are capable.

11. ASSESSMENT

Teachers assess children's work in Mathematics in a range of ways. The short-term/daily assessments that teachers make as part of every lesson through diagnostic feedback, oral responses and written feedback helps teachers to plan the next steps and adjust lesson accordingly. Teachers match these short-term assessments closely to the teaching and learning objectives and Success Criteria.

Effective feedback with pupils ensures relevant and informative responses to pupils about their own progress and future targets. Children's feedback is in line with the objectives and success criteria of the lesson with challenging, yet achievable targets/next steps identified where appropriate.

Renaissance Mathematics assessments (Years 2-6) are completed at the start of the year to give a baseline assessment. These are then repeated at the end of the Autumn Term, the end of the Spring Term and the end of the Summer Term. These assessments enable teachers and the Maths subject leaders to see the gaps in learning and address these in lessons, within intervention or as part of homework.

Mathematics assessments for each child are updated regularly to provide a clear picture of the current level of attainment. Bromcom (an online recording system) is used to show pupil's progress against specific objectives.

All feedback:

- Aims to be encouraging and supportive and follows the schools and MATs feedback policy
- Identifies if work has been undertaken as part of a teacher focus or supported group
- Includes ticks, praise, written diagnostic comments and errors clearly identified using the schools feedback policy
- Feedback is often completed live, with the pupils present so that they instantly know their successes and ways to improve
- May sometimes be undertaken by the pupils as part of peer/self-assessment
- Includes stamps, stickers and rewards in line with the class/school systems

Whole school moderation is undertaken to assess pupil progress both within the school and other schools within the Multi-Academy Trust. Formal tests and teacher assessment are undertaken.

Children undertake the National Tests at the end of Year 6, plus the Renaissance Maths assessment. Teachers also make annual assessments of children's progress using year group expectations from the National Curriculum.

Bromcom formative sheets are completed each term by teachers to record the progress of each child in Maths. Half- yearly and annual assessments inform teacher assessment. Monthly arithmetic tests feed into the daily taught session and

End of unit tests show attainment in each of the domains taught.

12.MONITORING AND REVIEW:

Monitoring of the standards of the children's work and of the quality of teaching in Maths is the responsibility of the Mathematics subject leaders/ SLT and the Head of School.

13. ROLE OF SUBJECT LEADER:

- The Subject Leader(s) should be responsible for improving the standards of teaching and learning in Mathematics through:
- Monitoring and evaluating Mathematics through:
- Pupil progress & voice
- Provision of Mathematics
- The quality of the Learning Environment;
- Taking the lead in policy development
- Auditing and supporting colleagues in their CPD needs
- Keeping up to date with recent subject developments
- Organise, audit and purchase central and class-based Maths resources
- Monitor progression and continuity of Maths throughout the school through lesson observations and regular monitoring of outcomes of work in Maths exercise books.
- Extend relationships and make contacts beyond the school.
- Develop opportunities for parents/carers to become more involved in Maths education.

14.PARENTAL INVOLVEMENT/HOMEWORK

East Park Primary School recognises that parents and carers have a valuable role to play in supporting their child's mathematical learning.

The following information is available:

- An overview of the Maths curriculum is available on our school's website through the form of yearly overviews, curriculum newsletters and knowledge organisers. Paper copies of these documents are also available on request and are sent home to each year group. Within the knowledge organisers, activities which link to each Maths topic are suggested for parents and carers to try at home with their child.

- Children are given Maths homework weekly from EYFS to Year 6 and parents are encouraged to support its completion. Throughout a unit of work, maths homework tasks will focus on developing number fluency.
- Parents are informed of their child's progress at Parents Evenings and this is also communicated in written school reports. Information about their child's standards, achievements and future targets in Maths is shared during parent/carer meetings, as well as ways that parents/carers may be able to assist with their child's learning.
- Parents and carers are encouraged to speak to their child's teacher at any point during the year, either informally or by making a specific appointment.

15.CELEBRATING SUCCESS

Displays will celebrate pupils' achievements, as well as Weekly achievement assemblies to celebrate success or as part of a special termly achievements.