Collierley Primary School

Maths Policy

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Ethos

Mathematics is a creative and highly inter-connected discipline that has been developed over centuries, providing the solution to some of history's most intriguing problems. It 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 therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject. At Collierley Primary School we aim to ensure that children are equipped with the knowledge and growth mindset to solve mathematical problems within practical situations by using a mastery approach to teaching. Maths is celebrated in school each week with a 'Magical Mathematician' certificate awarded to a child in each year group during celebration assembly.

To support and ensure this ethos, the Maths co-ordinator is responsible for monitoring the teaching and learning of Maths across the school. To fulfil this role, the Maths co-ordinator is responsible for completing lesson observations, book looks, learning walks and ensuring that colleagues receive training and support where necessary.

Early Years Foundation Stage and National Curriculum Aims

The National Curriculum for Mathematics clearly sets out aims and objectives that need to be taught for each year group. In order to teach these objectives successfully teachers must ensure that they are including the following points within their daily lessons:

- Become fluent in the fundamentals of mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically; follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems. Breaking down problems into simpler steps and persevering in answering.

The EYFS Statutory Framework 2014 sets standards for the learning, development and care of children from birth to five years old and supports an integrated approach to early learning. This is supported by the 'Development matters' non statutory guidance. The EYFS Framework in relation to mathematics aims for our pupils to:

- Develop and improve their skills in counting.
- Understand and use numbers.
- Calculate simple addition and subtraction problems.
- Describe shapes, spaces, and measures.

Daily Teaching

Every year group is taught Mathematics every day. This session in KS1 and KS2 lasts for at least an hour. Within this session children will be taught focussed fluency for 20 minutes. This part of the lesson is designed to improve children's basic number and calculation skills.

Fluency helps children to learn known facts about number and the number system. Fluency is an integral part of teaching Maths as without this children will not be as successful as they could be within reasoning and problem solving as they will need to spend time working out calculations rather than reasoning or problem solving. The Big Maths programme is used within school to support the teaching of fluency. Teachers ensure that a range of methods are used to support the teaching of maths including concrete, pictorial and abstract concept methods. In order to ensure that the curriculum is covered effectively Years 1-6 use the White Rose Maths Hub schemes of learning as their medium term planning documents. These schemes provide teachers with exemplification for maths objectives and are broken down into fluency, reasoning and problem solving, key aims of the National Curriculum. They support a mastery approach to teaching and learning and have number at their heart. They ensure teachers stay in the required key stage and support the ideal of depth before breadth. They support pupils working together as a whole group and provide plenty of time to build reasoning and problem solving elements into the curriculum. The Math Hub schemes of learning also support higher achievers as they allow every individual to access more challenging maths reasoning without the need to differentiate. This promotes the ethos that every child can be a high achiever in some aspects of the maths curriculum but not necessarily all.

Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child initiated activities both inside and outside of the classroom. Mathematics is taught through an integrated approach.

We aim to ensure that every child meets expected standard and above for their age. To do this we ensure that quality first teaching is taking place in every lesson. This is monitored regularly by the Senior Leadership Team (SLT) and the Maths Co-ordinator with lesson observations, book looks and learning walks. Some children may need extra support in meeting the expected standard. In these cases interventions take place. These could be small group work with the class teacher/TA, 1:1 support or a specialist intervention programme. We use Success@number to support small group interventions.

Marking and feedback in Maths follows the whole school marking policy. In addition to adding an effort grade and a mountain if the child achieves the lesson objective, in Maths a challenge question is always added. This question should challenge the child and extend their learning. If the child did not achieve the lesson objective the class teacher will provide feedback modelling the correct way to answer the problem.

Assessment

All children are formally assessed every term. We use NFER testing throughout school. This summative assessment is used alongside formative assessment throughout the term by the class teacher to determine the level in which the child is working at. This data is used to complete pupil progress meetings with the SLT. Within these meetings progress of pupils is discussed and appropriate intervention considered and put in place where appropriate.

Classroom Displays

Maths should be celebrated and promoted in every classroom. In order to do this, effective classroom displays need to be visible at all times. In each class there will be two Maths displays. One will be a working wall where important vocabulary is displayed, as well as any tools that the children might need to help support their maths work. This display should be constantly changing. To promote times tables knowledge within school every class should have a times tables display. This display should include the children in the class and share

their successes in learning their times tables. This should motivate the children to want to learn their times tables quickly.

Special Educational Needs and Disabilities

Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. Where required, children's SEN Support Plans incorporate suitable objectives from the National Curriculum for Mathematics or development Matters and teachers keep these in mind when planning work. These targets may be worked upon within the lesson as well as on a 1:1 basis outside the mathematics lesson. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by trained support staff and overseen by the SENCO and/or the class teacher. Within the daily mathematics lesson teachers have a responsibility to not only provide differentiated activities to support children with SEND 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.

Equal opportunities

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics. The aim is to ensure that everyone makes progress and gains positively from lessons and to plan inclusive lessons. Differentiated questions are used in lessons to help children and planned support from Teaching Assistants and other adults.