Epsom Downs Community School
MATHEMATICS POLICY STATEMENT **2023-25 Bi-Annually**

Subject Leaders Julia Simpson and Tom Powsey

Review Date: September 2025 (Bi-annually)

Intent

Mathematics is a creative and highly interconnected 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 Epsom Downs, we believe that pupils should master maths which means acquiring a deep, long-term, secure and adaptable understanding of the subject. The phrase 'teaching for mastery' describes the elements of classroom practice and school organisation that combine to give pupils the best chances of mastering maths. Achieving mastery means acquiring a solid enough understanding of the maths that's been taught to enable pupils to move on to more advanced material.

At Epsom Downs Community School, our children come from a diverse community which we believe should be celebrated throughout their learning journey by creating a curriculum that is inspiring and challenging to all. As core subjects, our maths and English curriculums are language-rich and is scaffolded to suit the learning needs of all children despite any potential barriers they may face. We aim to provide our pupils with a firm foundation, enabling them to fulfil their potential and to acquire the cultural capital needed to succeed in life.

Objectives
Our aims in teaching mathematics are that children will:

- 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 and seeking solutions.

Our mathematics curriculum is…

Engaging – Our intention is that children enjoy maths and embrace challenge. Through high levels of engagement children can flourish, reaching and exceeding their potential in maths. We believe in bringing maths to life, both indoors and out, with on emphasis on engaging and purposeful learning. Maths is taught through the CPA model (concrete, pictoral and abstract) which engages through practical experiences.

Enriching – Our truly unique curriculum enriches the children's skills and knowledge of maths. Our maths curriculum is enriched in the following ways; real world contexts, purposeful use of our school environment both indoors and out, links to curriculum themes and Enrichment activities such as cookery.

Value-Centred – Our Epsom Downs values are underpinned in our maths curriculum. Our children are taught the values of respect, resilience, empathy, self-awareness, positivity, excellence, communication and teamwork to enable them to develop the skills to be fluent, reason and problem-solve in maths.

Language-rich – At Epsom Downs, we recognise our children come from a diverse community and the need for our children to be introduced to and taught specific mathematical language. This language is embedded and developed as they build upon their mathematical knowledge and skills.

Implementation

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.

Planning

In Nursery and Reception, teachers plan and respond daily to the interests and needs of the children. Provision includes carpet session, free flow explore time opportunities, focus group teaching and up levelling of independent learning. This includes indoor and outdoor learning opportunities which ensure that children develop the mathematical skills from 'Development Matters. To support the teaching of maths, we use White Rose Maths and Numberblocks. The children experience short, active and playful math's interactions during explore time that encourage sustained shared thinking, development of mathematical language and problem solving.

Epsom Downs Primary School follows the National Curriculum Progression as set out in White Rose, which has been adapted to a progression document for our school. The expectation is that all pupils work together on the same lesson content at the same time. If a pupil struggles to grasp a concept or procedure, this is identified quickly and early intervention ensures the pupil is reading to move forward with the whole class in the next lesson.

Our progression document forms the basis of our long and medium term planning structure. Teachers use this as a planning tool to develop on previous learning and map out their maths objectives into half-termly grids and weekly lesson planning. Weekly planning is completed on either a word document or notebook. Teachers focus on the importance of using consistent strategies, vocabulary and approaches in each year group, so that the children can be confident to discuss, reason and apply the skills in a range of contexts. Key facts, mathematical vocabulary and skills are revisited and learnt through:

- reviews at the start of the lesson,
- an arithmetic lesson in KS1 and KS2,
- daily Flashback 4s,
- times table and counting practise.

These strategies ensure that we avoid cognitive overload in children's working memory and enable them to focus on new concepts in their maths lessons.

Organisation

Lessons follow the format:

- a short review and skills practise (5 to 10 minutes),
- a lesson input with questioning, short tasks, explanations, demonstrations and discussion,
- the main part of the lesson with children practising or applying the maths learning that reinforces procedural fluency and develops their conceptual understanding,
- a mid-plenary to address any misconceptions,
- a plenary session for the children to reflect on their learning.

At Foundation Stage the organisation is flexible. The children are taught a mathematics whole class input everyday. They also complete a mathematics adult focused activity in small groups every week.

In KS1 and KS2 mathematics lessons last for one hour. The children are taught in classes with work scaffolded to support children's access to the learning, if needed. Throughout the school, children are introduced to a mathematical concept through concrete resources, then using pictorial representations and finally moving onto applying abstract concepts.

Assessment

Teachers carry out formative assessment within each lesson which impacts children's learning. This is done through in-the-moment marking and verbal feedback either one-to-one or whole-class. Teachers use this to identify misconceptions and follow them up. They also use summative assessment that includes White Rose unit assessments, termly assessments and teacher's marking. This informs assessment data that is collect termly which is used to identify trends and gaps across year-groups and the school.

Display

Each class has a working wall. This should include:

- Current Learning focus recorded on agreed format.
- Mathematical vocabulary
- Success Criteria and modelling steps for success
- A maths challenge area

Parental Engagement

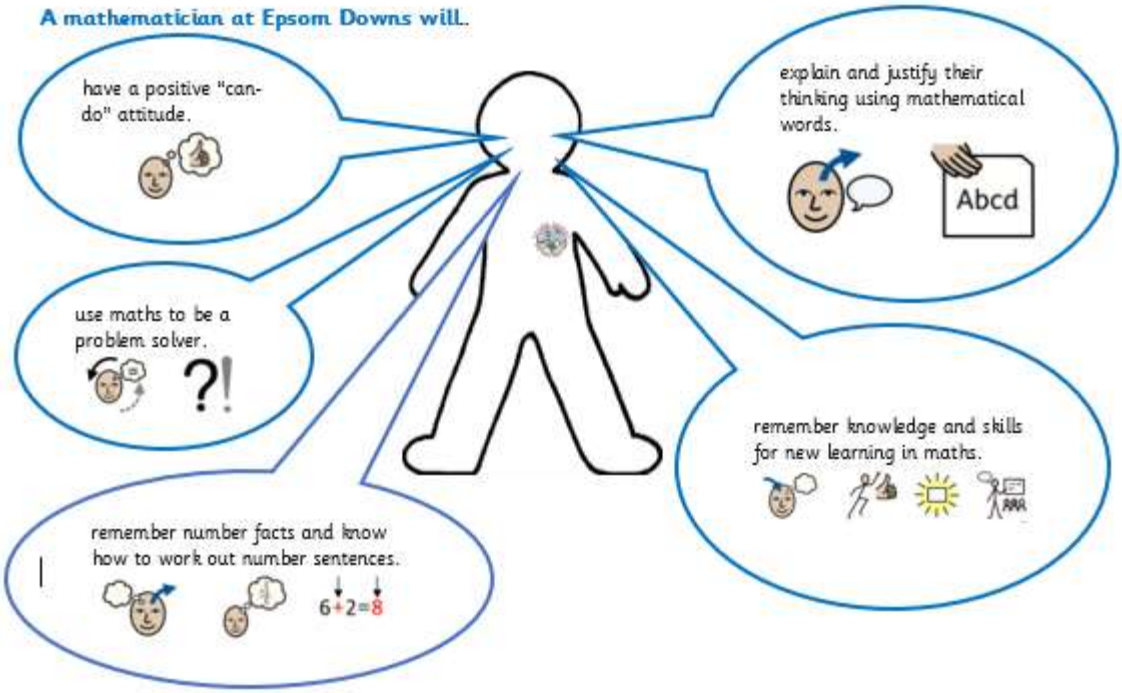
We encourage parental engagement in their children's maths learning through web sites such as Mathletics, Times Table Rock stars, and the White Rose 1-minute Maths app. We also share the children's current learning and key vocabulary with parents through our weekly newsletters. Teachers also organise maths workshops for parents to attend with their children.

Monitoring

The implementation and success of this policy will be monitored through the tracking of data, planning, work sampling, learning walks and pupil voice. The maths leaders will carry out observations of lessons to support their monitoring and delivery of maths in school. The maths leaders will monitor a phase in their subject leader time during each term as set out in the Subject Leader Monitoring schedule organised by the Deputy Head.

Impact

A mathematician at Epsom Downs will have a positive "can-do" attitude to their maths. The children will be able to recall previous learning and apply their mathematical skills rapidly and accurately. They will be able to reason using mathematical language and resources to explain and justify their thinking. They will have flexibility in their thinking and make connections in order to solve mathematical problems. This will ensure that children will leave Epsom Downs with the maths skills and knowledge needed to succeed in the next stage of their learning and adult life.



A mathematician at Epsom Downs will leave having….

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