MATHEMATICS POLICY

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INTRODUCTION

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.

INTENT

The aims of the 2014 National Curriculum are for our pupils to:

- 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.

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. Decisions about when a child will 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.

FOUNDATION STAGE CURRICULUM

Our Foundation Stage teachers use the Early Years Foundation Stage Curriculum to support their teaching of mathematics in the Foundation Stage. Master the Curriculum resources are used.

The children have the opportunity to talk and communicate in a widening range of situations and to practise and extend their range of vocabulary and mathematical skills.

The children explore, enjoy, learn about, and use mathematics in a range of personalised situations.

Mathematics is planned on a weekly basis and assessed using the criteria from the Early Learning Goals.

KEY STAGE 1 AND 2 CURRICULUM

The teachers in Key Stage 1 and Key Stage 2 follow the White Rose Mathematics scheme to support their planning and delivery of mathematics teaching. It is aligned with the National Curriculum 2014 and is based on the principle of mastery.

Assessment of mastery within mathematics will be supported by end of topic assessments for each year group and tracked by termly progress assessments and teacher judgements. Teaching and learning is differentiated to best match the needs of the class and the individuals within it using Concrete, Pictorial and Abstract representations. A Calculation Policy ensures that calculations are taught in this sequence and progress year on year. The calculation policy for each year group is displayed in classrooms in order to support children with their independent work.

If the needs of the children are best met following an alternative plan, which deviates from the National Curriculum 2014, then the class teacher and SLT discuss this and decide on a way forward.

Each year groups year plan for mathematics is shared on the school website
http://www.catmoseprimary.com/overview/

IMPACT

FEEDBACK AND MARKING

It is recognised by the school that high quality next steps marking of Maths is an essential tool to enhance children's learning. Marking should be both diagnostic and summative and school policy believes that it is best done through conversation with the child but acknowledges that constraints of time do not always allow this. Teachers allow time in lessons to give immediate feedback to learning and use the intervention book to recognise the children who require further support in consolidating their knowledge with a particular concept or area of mathematics.

ASSESSMENT

Assessment is an important tool used across the primary school and is used to inform future planning and teaching and ensure children achieve their full potential. Key pupils are identified through assessment and this is monitored through termly Pupil Progress meetings. From Year 1- 6 the children are assessed on a termly basis through the school tracker. Parents are given opportunity to discuss their child's progress on throughout the year. Written reports are distributed through the year. The assessment and recording of pupils' achievements in Mathematics is carried out through both continuous teacher assessment (through observations and marking) and through formal assessments. These are then used to track pupils' progress and produce end of term reports and targets.

In EYFS, continuous teacher assessment of mathematics is made.

In Key Stages 1 and 2, the data collated is a mixture of test scores (increasing in formality and length as the pupil progresses through the school) and teacher assessment. This provides a balanced judgement of a pupil's attainment and progress.

We use a range of measures to determine the success of our curriculum which are monitored and shared with governors, these include:

- Pupil attendance. If our curriculum is engaging, broad and balanced, pupils will want to attend School.
- Pupil behaviour. If the curriculum is right for our children, lessons and other activities will be engaging and rates of poor behaviour and exclusions will be low.
- The quality of lessons observed. If our curriculum is well designed and planned, lessons will be of a high quality and this will be shown through the grades the senior team award for lessons.
- Pupil engagement in the enhanced curriculum. We will monitor pupil participation in trips and visits, events within School, competitions and clubs, ensuring that all pupils are involved in a broad mix of activity.
- A strong positive response for our stakeholder surveys. We annually survey staff, pupils and parents asking a range of questions about our curriculum.
- Outcomes at the end of the EYFS, Phonic Screening Check, KS1 SATs and KS2 SATs, with progress made from KS1 SATs to KS2 SATs. If the curriculum we offer meets the needs of our children, outcomes will be good or better.