

# Thaxted Primary School

## Mathematics Policy

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Policy Date: Summer 2023	Review Date: Summer 2027	Responsible Person: Headteacher In Cooperation with: Subject Leader for Mathematics
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Thaxted Primary is an inclusive school. We take safeguarding very seriously and all of our policies are developed with a high priority on children's safety and in the light of our safeguarding policy. All of our school policies are interlinked and should be read and informed by all other policies. In particular, the Mathematics policy is linked to Science and Computing policies.

### Intent

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At Thaxted our intent for mathematics is to teach a rich, balanced and progressive curriculum using maths to reason, problem solve and develop fluent conceptual understanding in each area. We believe that mathematical fluency and secure conceptual understanding of number is an essential life skill for all learners and is a pre-requisite to being able to reason and solve problems mathematically confidently.

We aim to ensure that children develop an 'everyone can do maths' attitude and an enjoyment and enthusiasm for maths that allows children to better make sense of the world around them by making connections between mathematics and everyday life. We are determined that children become resilient and resourceful mathematicians who are not afraid to take risks and make mistakes in order to learn.

The national curriculum for mathematics and at Thaxted aims to ensure that all pupils:

- become **fluent** in the fundamentals of mathematics, through varied and frequent practice, 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 in seeking solutions.
- Become resilient, resourceful and reflective mathematicians who can take responsibility for their learning.

### Implementation

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Mathematics in the foundation stage is guided by the Early Learning Goals. In Key Stages 1 and 2 learning is based on the National Curriculum 2014 guidance and is taught using NCETM and White Rose. We follow the NCETM and White Rose Maths planning which has been developed by primary practitioners to provide a curriculum plan that will support 'Teaching for Mastery'. These provide yearly overviews of blocks of learning and age-related small steps learning objectives to support deeper understanding of mathematical concepts. Other resources are used to support fluency, reasoning and problem solving. Maths is taught throughout the school on a daily basis with a balance between practical, mental and written methods which relates directly to the needs of pupils.

## Teaching and Learning

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- Mathematics is **taught** as a whole class or in year groups within a class. Focus groups may be used within and outside of the classroom with an LA or class teacher to support or extend learning.
- **Key learning objectives** (using the NCETM/ White Rose small steps) are identified during planning and used to plan learning and encourage deeper understanding. Lessons will focus on one key conceptual idea.
- **Talk in maths** - Pupils will have opportunities to talk to their partners and explain/clarify their thinking throughout the lesson. Maths talk is supported through a shared framework of sentence prompts, high expectations and modelled explanations. By orally clarifying their thinking, pupils consolidate their understanding. **Listening** to pupils' discussion and explanations provides an invaluable assessment opportunity.
- **Questions** used will probe and extend pupil understanding and learning. Responses are expected to be framed within full sentences using precise mathematical vocabulary. Stem sentences may be used to scaffold children's reasoning, vocabulary and understanding.
- Teachers use the **CPA** (concrete, pictorial and abstract) approach to support children's understanding of mathematical concepts. This applies to pupils of all ages and attainment.
- **Misconceptions** are identified during the planning process (using NCETM and WR) and in lessons and children will be supported through these. Mistakes are celebrated, addressed and overcome together.
- **Challenge for all** - all pupils should experience maths learning which challenges and stretches them. Pupils should be encouraged to develop their resilience. All pupils in a class should experience a similar amount of success.
- **Depth before breadth** - Extension is through enrichment, reasoning and depth of understanding. Greater depth activities will be planned carefully to ensure rapid graspers learning is stretched and challenged without crossing into future year's curriculum content.
- **Marking and Feedback** – we have a whole school marking policy which is followed within every classroom.
- **Assessment for learning** - this is an integral part of all lessons. Teachers are expected to respond to pupils within a lesson and adjust planning and teaching to meet pupils' needs.

## Homework

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Some opportunities are provided for the children to practise their Mathematics skills at home with the support of a parent/carer. In Key stage 1, Year 2 are given a maths task every other week to complete at home and are encouraged and challenged to use TTRockstars to begin to learn their multiplication tables facts. In EYFS and Y1 children are also challenged to learn their number bonds to 10, 20 and 100 and are awarded medals for doing so.

In Key Stage 2 children have mathematical tasks for homework each week. This may take many forms including mental and practical tasks. Homework is linked to learning in class for that week or previous learning to aid retrieval practice of mathematical concepts.

## Planning

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Mathematics is planned carefully to be in line with the demands of the National Curriculum but also taking into account the needs of the class, groups of children and individual children. See also SEND section. NCETM and White Rose are used for planning teaching and learning.

## Children with SEND

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All children are encouraged to take an active part in their mathematical learning and learning is carefully differentiated for some children with SEND using WPS booklets and one plan targets. SEND pupils – may be supported by additional adults, different resources or differentiated activities. They may also complete additional activities outside of the mathematics lesson as part of an intervention programme or precision teaching support.

## **Assessment and Record keeping Procedures**

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Throughout the year teachers make ongoing formative assessments about the children's knowledge and skills, as outlined in the national curriculum for Mathematics and small steps in WR; these assessments inform next lessons and future teaching and learning. At the end of a unit of work, topic, or term, whichever comes first, teachers use their ongoing assessments to make a summative judgement about whether a child is working towards, 'expected' or 'at greater depth' in line with the national curriculum for their year group. Assessment information is used to inform the teacher of interventions or 'catch up' programmes that may need to be planned for. Pupil progress is discussed in termly meetings and is communicated to the next class teacher. Mid-way through the year and at the end of the year, a child's attainment in Mathematics is reported to parents in a written report.

Teachers record the outcomes of formative and summative assessments on National curriculum checklists which are in the front of a child's maths book.

Children are formally assessed using optional sats in Year 2 and external tests in year 6. Baseline assessment is carried out in EYFS.

## **The Role of the Subject leader**

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The subject leader's role is to model outstanding teaching; to support colleagues in planning and resourcing; to keep up to date with National initiatives and to monitor mathematics throughout the school.

## **Health and Safety**

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See Health and Safety Policy.

## **Equal Opportunities**

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The school is committed to providing equal opportunities for all, regardless of race, faith, gender or capability in all aspects of school. We promote self and mutual respect and a caring and non-judgmental attitude throughout the school.

## **Links to other policies or guidance**

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This policy should be read in conjunctions with:

- WHAT book
- Inclusion/SEND Policy
- Science
- Computing
- The National Curriculum

- Marking and feedback

## **Review Procedure**

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This policy will be reviewed in line with the school Policy Schedule. See table at beginning of policy for review date.