



Mathematics Policy

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Pensby Primary School

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The Nature of Mathematics!

Mathematics at Pensby Primary School is promoted as a tool for everyday life.

We aim for pupils to have a positive attitude towards Mathematics, enjoying the challenges that Mathematical problem solving can create. They will be able to solve problems, reason, think logically and work in a systematic way when faced with challenges, always endeavouring to work with accuracy by initially estimating and then checking results, questioning outcomes as necessary.

Within the Early Years Foundation Stage we aim to ensure that pupils seek patterns and make connections through finding out about and working with numbers, counting, shapes, space and measures. Children will use their developing understanding to solve problems, generate new questions and make connections across other areas of Learning and Development.

We encourage pupils to work collaboratively with others as well as independently across Key Stage 1 and 2 building on the work already started in Foundation Stage.

We aim to ensure that our pupils have a secure mathematical understanding and knowledge of concepts and skills, and are able to use and apply these in a range of everyday contexts and across the curriculum.

The school uses the programmes of study from the National Curriculum 2014 underpinned by the 3 pillars; fluency, problems solving and reasoning mathematically. This ensures that children are accessing and mastering an age-related curriculum.

Breadth Of Study

Our mathematics curriculum aims to ensure that pupils are given opportunities to:

- Engage in Mathematical games and practical activities that will support learning
- Problem solve regularly so that they are confident and competent with approaching unusual Mathematical tasks and questions.
- Develop independence through open tasks as well as closed tasks that will allow pupils to practise skills.
- Work with a range of mathematical representations to explore key concepts.
- Talk and discuss their Mathematics through appropriate group, paired and whole class discussions.
- Develop a range of arithmetical skills and knowledge of mathematical facts in order to work fluently and with pace.

Scheme of Work

We use a wide range of resources and materials to develop and tailor a planning system that works best for our children. This incorporates (but is not exclusive to) White Rose Maths Hub and Hamilton Trust.

We also use Maths of the Day to supplement and enrich our teaching of maths.

Our calculation policy outlines the expectations for procedural approaches across the school.

Morning Maths (Basic Maths) forms an integral part of Maths teaching cross our school and in the development of fluency.

Cross-curricular

Maths not seen as a lesson but transferable skills!

Teachers identify regular opportunities to integrate Mathematics across the curriculum when medium term planning for the Foundation Subjects.

Appropriate links are made to Mathematics predominantly through Geography, Science and P.E.

SEN, Differentiation & Vulnerable Groups

Children with SEN are clearly identified and supported in a range of different ways. This may include 1:1 teaching within the classroom or in certain instances with a specialist teacher outside the classroom.

Our approach to teaching maths is for the children to 'Keep Up' not 'Catch Up'. Lessons offer challenge for all ability children and are differentiated in a variety of different ways depending on the lesson intention. More able children are taught to deepen their understanding rather than accelerating their progress to enable them to access 'Mastery' within Mathematics.

Pupils Records of Work

Squared books are introduced at the relevant stage within a child's learning. A child is not expected to record in squared books if it is unlikely to support their mathematical understanding. These are used to support with presentation and understanding of calculation particularly when introducing partitioning, empty number lines and positioning of numbers on a number line.

A range of squared books are available for teachers to select for pupils to use:

- 1cm square Years 1 and 2
- 7mm square: Year 3 upwards

Relevant photographs and observations of individual pupil Mathematical learning are recorded by teachers or additional adults in the class evidence book and using SPTO.

We expect the highest standards of presentation in all recording of work from pupils.

All mathematics work is completed in pencil. Mistakes are crossed out using 1 single line. All lines are drawn using a ruler.

All children are required to record the short date at the top of each piece of work.

When working in squared books, children will record 1 digit per square. This does not apply when writing and pupils should write in their normal style in line with our handwriting policy.

Separate books may be used to record Morning Maths activities.

Children are NOT to work in the *back of their books*. Their work should show progression and be a timeline of activities taught.

Marking

All Mathematics work is marked using the guidelines outlined in the schools marking policy. The statements below are those specific to the marking within Mathematics.

There must be a distinction between a careless slip and a fundamental error.

When marking practise exercises staff will use a ✓ if an answer is correct with a ● rather than x to indicate an error. Teachers use a green target label to identify mistakes and staff will follow up mistakes/errors/misconceptions by recording comments with an appropriate model or scaffold that move the learning forward. Children are encouraged to respond appropriately to teacher comments and academic guidance using red pen response where appropriate.

Peer and self assessment is used for the marking of informal practise exercises at Key Stage 2.

Assessment and Record Keeping

- Rising Stars assessments to be completed at the beginning of every half term. Results to inform teaching and learning
- SPTO to be updated regularly
- KS1 and KS2 SATs tests
- Monitoring (lesson observations, learning walks, pupil voice, book scrutiny etc.)
- Moderation with local schools' cluster

Staffing/Resources

Children have access to a range of mathematical resources within the classroom that are well organised and clearly labelled so they can be accessed independently.

A wide range of mathematical representations are used to support mathematical learning and children are encouraged to use these independently to support thinking, moving between the concrete, pictorial and abstract as appropriate.

A Mathematics Learning Wall within each classroom is a reference point for children, identifying the sequence of learning that has taken place or key facts/information that they can use to support and scaffold their Mathematical thinking.

