



# Sherborne C of E Primary School – Mathematics Policy

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Date of next review:  
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Version	Date	Page	Description of Change	Origin of Change
1	25/09/2016	All	Updating existing policy	Flora Ellis
2	26/09/2016	All	Editing policy	SMT

## Monitoring and Evaluation

The subject leader is responsible for updating this policy in line with any new developments in the school and new government guidance. All staff are expected to follow the policy and the subject leader will be responsible for ensuring the effectiveness of practice across the school, reporting to the Performance and Standards Committee.

Discussed by the staff: September 2016                      Signed: \_\_\_\_\_

Discussed by the Governing Body: September 2016      Signed: \_\_\_\_\_

### Intention of the Policy

The purpose of the Mathematics Policy is to set and maintain standards of teaching and learning at Sherborne C of E Primary School, and in doing so, ensure that all employees are aware of the school's expectations. It is designed to help and encourage all teaching staff to achieve and maintain high levels of performance.

### How the policy will enhance pupils' learning

We aim for all of our children to make substantial progress in Mathematics through ensuring that teaching:

- *enables pupils to recall and apply their knowledge confidently and efficiently, becoming fluent in the fundamentals of mathematics through varied and frequent practice*
- *develops a strong conceptual understanding of mathematics, its structures and its relationships, allowing pupils to reason mathematically*
- *develops pupils' interest and perseverance in seeking solutions through following lines of enquiry, conjecturing relationships or generalisations, and through developing an argument, justification or proof, using mathematical language*
- *provides opportunities for pupils to become secure in using written methods for which they have a clear understanding*
- *enables pupils to solve problems by applying their mathematics to a variety of routine and non-routine problems with increasing sophistication*

Mathematics is an interconnected subject in which pupils need to be able to move fluently between representations of mathematical ideas. At Sherborne we believe that problem solving and investigative skills should lie at the heart of our mathematics teaching. This will in turn enable pupils to make rich connections across mathematical ideas, developing their fluency, mathematical reasoning and competence in solving increasingly sophisticated problems.

Our expectation is that all children should welcome challenge and that teachers will foster the attitude that all of us - even the highest of attainers - should expect to struggle. We will value the mistakes that pupils make, as opportunities for learning, and ensure that pupils who grasp concepts rapidly will be challenged through rich and sophisticated problems that deepen understanding. Those who are not sufficiently fluent with earlier material will be given opportunities to consolidate their understanding, including through additional practice, before moving on. We take a mastery approach to our teaching; promoting greater depth of learning, over acceleration through content.

Pupils should also be able to apply their mathematical knowledge to science and other subjects and, as such, we aim to provide cross-curricular opportunities for the development of mathematic skills, wherever appropriate. We also recognise that collaboration and communication of ideas are crucial life skills and should be developed through our mathematics teaching.

### School practice

At Sherborne, teaching and learning takes place through daily mathematics lessons. The time given to mathematics each day may vary between key stages, but the usual provision is sixty minutes a day, which can be split into two sessions. Additional opportunities for mental mathematics practice are taken throughout the day.

In Years 1 and 2 we use 'Maths No Problem' resources to deliver our lessons. This is a scheme of learning which focuses on developing greater depth of understanding from the basics of number upwards. We believe that this provides our young learners with a secure and thorough foundation for future learning.

Throughout the school a variety of teaching and learning practices are adopted, which include:

- identifying pupils' misconceptions and valuing their mistakes as starting points for learning
- giving time for pupils to think and valuing their oral contributions
- fostering an ethos in which all children feel they can contribute.

Our classroom practice will include:

- discussions with pupils of their success criteria for meeting age-related objectives
- practical 'real' activities to introduce concepts and reinforce learning objective
- children working individually on a task, in pairs or in small groups
- differentiated tasks, assessed throughout lessons, which meet the needs of all stages of attainment
- an emphasis on correct use of mathematical language supported by key vocabulary being displayed
- a balance between open-ended investigations and the learning and practising of written methods for calculation

## Working walls, displays and resources

To support good practice, all classrooms will have:

- stage-appropriate resources, particularly concrete and pictorial apparatus, to support children to grasp concepts
- mathematical vocabulary displayed so that children can use this in the communication of their understanding
- a working wall for developing current understanding during lesson time
- pupils' work and support materials on display in order to encourage a positive attitude and enthusiasm towards mathematics for all groups of children

The National Curriculum 2014 sets out the programme of study for mathematics, which can be organised into separate strands. This means children will be taught to:

- develop a complete understanding of number and place value
- calculate using addition, subtraction, multiplication and division, both mentally and using written methods
- recognise, compare, order and calculate with all types of fractions
- read, write, order, compare decimals and percentages
- use ratio and proportion to show comparisons between two or more amounts
- use simple algebraic formulae, describe missing number problems algebraically and generate and describe linear sequences
- familiarise themselves with all standard units of measurements, including time, and be able to convert between related measures
- use knowledge of geometry to describe the properties of shapes and angles through identification, classification, representation, comparison and measurement
- describe position, direction and movement and represent and interpret position and direction on a coordinate grid
- interpret and present both discrete and continuous data using a range of graph and chart types
- undertake investigations and use reasoning to solve a wide range of problem types, involving any one, or combination of the above

Monitoring will take place through:

- books looks, lesson moderation, staff moderation exercises, cross-school moderation exercises, pupil interviews, informal discussions with staff, data tracking, planning scrutinies and assessment portfolios

This policy works in conjunction with the following policies:

- SEN Policy
- Assessment Policy
- Marking and Feedback Policy
- Presentation and Handwriting Policy
- Teaching and Learning Policy
- Homework Policy
- Planning Policy