



The Federation of North and South  
Cowton Community Primary School and  
Melsonby Methodist Primary School



# Mathematics Policy

<b>Document Status</b>			
<b>Date of Next Review</b>	December 2021	<b>Responsibility</b>	<i>Governing Body</i>
<b>Success Criteria for review completion</b>		<b>Responsibility</b>	<i>(Chair)</i>
<b>Date of Policy Creation</b>	<b>Adapted school written model</b>	<b>Responsibility</b>	<i>Stuart Priestley Chair of governors</i>
<b>Date of Policy Adoption by Governing Body</b>	<b>Signed</b>		
<b>Method of Communication</b> DB and hard copy policy folder			

The Federation of North and South Cowton Community Primary School and Melsonby Methodist Primary School aim to provide a high-quality mathematics curriculum which enables our pupils to understand the world, reason mathematically, gain an appreciation of the beauty and power of mathematics and inspires a sense of enjoyment and curiosity about the subject. Pupils will develop a secure understanding of mathematical concepts, becoming fluent mathematicians, who can reason mathematically, solve increasingly sophisticated problems and apply their mathematical knowledge across the curriculum.

All pupils should:

- become fluent in the fundamentals of mathematics, through varied and frequent practice with increasingly complex problems over time.
- develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.
- reason mathematically by following a line of enquiry, making connections 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.
- develop the ability to think clearly and logically, with confidence, flexibility and independence of thought.
- develop an ability and inclination to work both alone and cooperatively to solve mathematical problems.
- develop personal qualities such as perseverance, independent thinking, cooperation and self-confidence through a sense of achievement and success.

The expectation is that the majority of pupils will move through the programmes of study at broadly the same pace. However, decisions about when to progress will always be based on the security of pupils' understanding and their readiness to progress to the next stage. Pupils who grasp concepts rapidly will be challenged through being offered rich and sophisticated problems before any acceleration through new content. Those who are not sufficiently fluent with earlier material will consolidate their understanding before moving on.

Curriculum Design:

The National Curriculum for mathematics (2014) describes in detail what pupils must learn in each year group. Combined with our Calculation Policy, this ensures continuity, progression and high expectations for attainment in mathematics. As a Federation, we follow the Mixed Age Small Steps progression from The White Rose Maths Hub. This is a detailed, structured curriculum, which is mapped out across all phases; ensuring continuity and progression. It is planned in small steps, which provide the children opportunities to develop their fluency, reasoning and problem-solving skills in each area, before progressing on to the next aspect of mathematics.

In KS1 and KS2 lessons:

- A clear learning objective will be shared with the children and recorded in their books.
- Children have a personal target in their maths book.
- Children are given daily opportunities to practise their counting or times tables skills.
- Children have independent access to concrete mathematical resources which they can use to support their understanding.
- Working walls are used in all classrooms to model concepts and key vocabulary to children. They are clearly visible so that children can refer to them when completing their independent activity.
- Children are given frequent opportunities to develop their fluency, reasoning and problem-solving skills and to explain their understanding using both written and verbal communication.

In the EYFS children learn through a mixture of adult led activities and child-initiated activities both inside and outside of the classroom. Mathematics is taught through an integrated approach.

Assessment

Formative Assessment (AfL)

Assessment is an essential and ongoing part of the teaching and learning process and occurs throughout the lesson. Teachers assess children's understanding using effective questioning, observations of children's participation in activities, discussions with children about their learning and through effective feedback and marking. Findings from these types of assessment are used to inform future planning.

## Marking

Marking of children's work is essential to ensure they make further progress. Work is marked against the daily learning objective, in line with the school marking policy, and where necessary, includes next steps. Often, marking occurs with the children during the lesson, in the form of verbal feedback, which children are able to respond to immediately. When marking occurs after the lesson, children are given time to read teachers' comments and make corrections or improvements. Responses to marking are made as close to the work as possible, ideally at the start of the next lesson.

## Summative Assessment

More formal methods are used to determine the levels of achievement of children at various times during the school year. We use termly assessments (PUMA) with children from Y1-Y6 as a way of recording children's progress over the course of the year. These tests are used as a planning tool, to set targets and to identify children in need of additional support as well as to track progress. Children in Y2 and Y6 complete the national tests (SATs) in May.

Teachers use information gathered via formative assessment during lessons and the results of summative assessments to make a half-termly steps assessment for each child on Target Tracker. This shows each child's attainment against the expectations for their year group and enables progress over time to be tracked. Pupil Progress meetings are timetabled each term for all classes. The attainment and progress of all pupils is discussed using assessment data from Target Tracker and outcomes from PUMA papers. Children who may not meet age related expectations or whose rate of progress is slowing, are identified and interventions are delivered where appropriate.

## Mental Mathematics:

Our Calculations Policy enables us to deliver consistency and progression in mental maths throughout the school. Children's mental methods of calculation must be practised on a regular basis and secured alongside their learning. Mental mathematics forms an important part of maths lessons and is vital for children's success in future life. The aim of our mathematics curriculum at the Federation of North and South Cowton and Melsonby Methodist Primary School is to enable our children to progress to the next stage of their education with an enjoyment of mathematics, a desire to discover more about the subject, a secure knowledge of number facts and an effective understanding of a range of mathematical strategies so they can select the most efficient approach to solve their problem. Calculations are practised in daily during maths lessons and all children are given daily opportunities to practise their counting and times tables skills.

## SEND:

Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. Where required, children's IEP's incorporate suitable objectives from the National Curriculum for Mathematics or Development Matters and teachers keep these in mind when planning work. These targets may be worked upon within the lesson as well as on a 1:1 or small group basis outside the mathematics lesson. Maths focused intervention in school helps children with gaps in their learning and mathematical understanding. These are delivered by trained support staff and overseen by the SENCO and the class teacher. Within the daily mathematics lesson, teachers have a responsibility to not only provide differentiated activities to support children with SEND but also activities that provide sufficient challenge for children who are high achievers. It is the teachers' responsibility to ensure that all children are challenged at a level appropriate to their ability.

## Role of the Maths Subject Leader

- To lead in the development of maths throughout the school.
- To monitor the planning, teaching and learning of mathematics throughout the school.
- To help raise standards in maths.
- To provide teachers with support in the teaching of mathematics.
- To provide staff with CPD opportunities.
- To monitor and maintain high quality resources.
- To keep up to date with new developments in the area of mathematics.