

Mathematics (England)

Date	Review Date	Maths Leaders	Nominated Governor
13/09/2018	Term 6 2019	A.Wright, S.Stringer, L.Gordon	

Mathematics is a method of communication. It is a specific language through which ideas are explored explained, and developed, and one by which relationships can be described, patterns identified and hypothesis made and tested.

It is a way of organising and managing information gathered practically in everyday situations; in the use of measures and spatial measurement. Mathematics is an essential part of everyday life and its application forms part of our everyday society, even if it is not explicit. Maths is a creative and highly inter-connected subject which provides solutions to some of the world'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.

Mathematics includes the development of numeracy skills; a proficiency that involves confidence and competence with numbers and measures. It requires an understanding of the number system, a repertoire of computational skills and an inclination and ability to solve number problems in a variety of contexts. Numeracy also demands practical understanding of the ways in which information is gathered by counting and measuring, and is presented in graphs, diagrams, charts and tables.

At The Welland Primary Schools Federation we believe that mathematics helps children to make sense of the world around them by developing the ability to calculate, to reason and to solve problems. It enables children to understand and appreciate relationships and pattern in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to appreciate the contribution made by many cultures to the development and application of mathematics.

The mathematics teaching at our schools is geared towards enabling each pupil to develop within their capabilities; not only the mathematics skills and understanding required for later life, but also establish them as resilient, enthusiastic learners.

Aims

- To develop an enthusiasm for and fascination with mathematics.
- To support each child in fulfilling their potential in mathematics, providing them with the necessary skills to become successful lifelong learners.
- To increase the confidence of each pupil in mathematics to enable them to apply the knowledge and skills with assurance.
- For pupils to foster a positive attitude towards mathematics, recognising its creativity and the relevance and importance of it in everyday life.
- To equip pupils with a powerful mathematical tool that provides:
 - i) a precise means of communication using numbers, symbols and shapes;
 - ii) a universal language used to explain, predict and tackle problems.
- For pupils to become fluent in the fundamentals of mathematics, through interesting and exciting teaching which will include frequent problem solving. This will help pupils to develop a conceptual understanding and the ability to recall and apply their knowledge rapidly and accurately to problems.
- Reason mathematically by following a line of enquiry, conjecturing relationships and generalising and using mathematical language.

Objectives

- To enable all pupils to achieve their potential according to their ages and abilities.
- To provide training and support that will develop an expert staff that provides a balanced and broad curriculum suited to the development of appropriate knowledge and concepts.
- To ensure management systems and structures provide support for the aims and objectives for mathematics.
- To provide appropriate resources to ensure a rich and diverse curriculum.
- To ensure teaching and learning styles are varied and suited to the pupils being taught and the areas being studied.
- To ensure full coverage of the National Curriculum in mathematics which clearly outlines what must be taught within each year group. Although the National Curriculum outlines distinct objectives, we understand the importance of viewing mathematics as a whole rather than distinct domains, ensuring continuity and progression in the teaching of Mathematics.

Teaching Guidelines

Mathematics in the first place is a practical subject, which develops the concepts of shape, space, number, pattern and problem solving. In the early Foundation years' children have activities that develop these concepts and prepare the children for further mathematical studies when they are ready.

From Reception to Y6 the school follows the National Curriculum for mathematics through the principles and practice of the Written Calculation Policy, which provides detailed guidance for the implementation of mathematics in the school.

Mathematics is taught discretely but is also integrated into the planning of all subjects and applied across the whole curriculum. In this way pupils learn the place of mathematics in the world around them.

Pupils develop mathematics through using a variety of methods: mental strategies, practical activity, written calculations, problem solving, discussion, and application of basic skills.

Mastery in Mathematics

We believe that all pupils are capable of achieving in mathematics and all pupils require consolidation of the key ideas and building blocks before moving on to new material. To achieve this, we are developing a 'mastery approach' to our teaching. This includes:

- Using pedagogic practices that keep the class working together on the same topic, whilst addressing the needs for all pupils to become secure in the curriculum objectives and for some to gain greater depth and proficiency and understanding.
- Challenge is provided through going deeper rather than accelerating into new topics.
- Teaching is focused, rigorous and thorough to ensure that learning is sufficiently embedded and sustainable over time.
- When a teacher identifies that a child requires additional support within a particular area of maths, the child is provided with the opportunity to review the area of learning within intervention time. The timely nature of the intervention allows the child to fully engage at a greater level of understanding in the following lesson.
- More time is spent teaching topics to allow for the development of depth and sufficient practice to embed learning.
- Pupils are engaged in mathematical reasoning and the development of mathematical thinking.

Planning and organisation

As a federation, curriculum planning is based on the National Curriculum, the Early Years Learning Goals and White Rose Maths, as tools to ensure appropriate pace, progression and coverage of the subject. Each teacher has responsibility for the planning and teaching of mathematics in their class. Teachers ensure that the way the class is organised is appropriate to the activity so all children have the best possible learning activities. In our mixed age classes, work will normally be planned using the material that is appropriate for the mathematical stage of the majority of the children, taking into account year group specific objectives, with tasks being tailored according to need.

Monitoring and Assessment

Mathematics provision is monitored by the Subject Leaders. They examine pupils' work and monitor classroom practice. They also ensure all members of staff have appropriate training to enable them to deliver the curriculum to the expected standard of excellence.

Pupils are assessed externally in mathematics at the end of Y2 and the end of Y6, by means of National Curriculum assessment. These are the summative "snapshot" assessments of their attainment at a specific time required by law.

Teachers assess pupils continuously on a less formal basis; these assessments inform the teacher of the pupil's current achievements, and guide the teacher in planning the pupil's future learning.

We use the national tests for children in Year 2 and Year 6, plus the NFER/White Rose tests for children in years 1, 3, 4, and 5 three times in the year.

Additional Educational Needs

All classes consist of pupils of varying abilities and with varying needs, and our classroom practice ensures that most of these needs can be met within the classroom organisation. For further specific additional needs, refer to the SEND policy.

Parental Involvement

We encourage parents to be involved by;

- Inviting them into school twice yearly to discuss the progress of their child.
- Making them aware when significant changes have been/are made to the mathematics curriculum
- Advising parents on new methods and strategies used in school whether formally in meetings or informally as discussions.
- An annual written report

Monitoring the Effectiveness of the Policy

Annually (or when the need arises) the effectiveness of this policy will be reviewed by the subject leads, the Headteacher and the nominated governor and the necessary recommendations for improvement will be made to the Governors.

Executive Headteacher:		Date:	
Chair of Governing Body:		Date:	