



Frances Olive Anderson C of E Primary School



'Being Different, Belonging Together.'

Mathematics Curriculum Statement

October 2017

Introduction

Mathematics is a creative and highly interconnected discipline that has been developed over centuries, providing the solution to some of history'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. A high quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

(National Curriculum 2014)

The aims of the 2014 National Curriculum are for our pupils to:

- Become fluent in the fundamentals of mathematics through varied and frequent practice with complexity increasing over time.
- Develop conceptual understanding and ability to recall and apply knowledge rapidly and accurately.
- Reason mathematically; follow a line of enquiry, conjecture relationships and generalisations.
- Develop an argument, justification and proof by using mathematical language.
- Problem solve by applying knowledge to a variety of routine and non-routine problems. Breaking down problems into simpler steps and persevering in answering.

The National Curriculum sets out year by year programmes of study for key stages 1 and 2. This ensures continuity and progression in the teaching of mathematics.

The EYFS Statutory Framework 2014 sets standards for the learning, and care of children from birth to five years old and supports an integrated approach to early learning.

The EYFS Framework in relation to mathematics aims for our pupils to:

- Develop and improve their skills in counting
- Understand and use numbers
- Calculate simple addition and subtraction problems
- Describe shapes, spaces, and measures

The purpose of mathematics in our school is to develop:

- Positive attitudes towards the subject and awareness of the relevance of mathematics in the real world
- Competence and confidence in using and applying mathematical knowledge, concepts and skills and ability to solve problems, to reason, to think logically and to work systematically and accurately
- Initiative and motivation to work both independently and in cooperation with others
- Confident communication of maths where pupils ask and answer questions, openly share work and learn from mistakes
- An ability to use and apply mathematics across the curriculum and in real life
- An understanding of mathematics through a process of enquiry and investigation

We aim to provide a stimulating and exciting learning environment that takes account of different learning styles and uses appropriate resources to maximise teaching & learning.



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Breadth of study

Careful planning and preparation ensures that throughout the school children engage in:

- practical activities and games using a variety of resources
- problem solving to challenge thinking
- individual, paired, group and whole class learning and discussions
- purposeful practise where time is given to apply their learning
- open and closed tasks
- a range of methods of calculating e.g. mental, pencil & paper and using a calculator working with computers as a mathematical tool

Through our creative approach to teaching and learning we also seek to explore and utilise further opportunities to use and apply mathematics across all subject areas.

Teachers planning and organisation

Mathematics is a core subject in the National Curriculum and as a school we follow the objectives from this to support our planning and assess children's progress. Y1-Y6 follow a long term plan to ensure coverage of all areas of the National Curriculum.

Years 1-6 use the White Rose Maths Hub schemes of learning to support their medium and short term planning. These schemes provide teachers with notes and guidance and the National Curriculum objectives are broken down into smaller steps which include varied fluency, reasoning and problem solving questions. These documents support a mastery approach to teaching and learning and have number at their heart. They ensure teachers stay in the required key stage and support the ideal of depth before breadth. They support pupils working together as a whole group and provide plenty of time to build reasoning and problem solving elements into the curriculum.

All classes have a daily mathematics lesson where possible. Teachers of the EYFS ensure the children learn through a mixture of adult led activities and child initiated activities both inside and outside of the classroom.

Display

We recognise the important role display has in the teaching and learning of mathematics by having maths work displayed in the school. Every class has a maths working wall which displays targets, key words and where possible concrete, pictorial and abstract representations for pupils to refer to for guidance. Teachers are also encouraged to have easily accessible concrete resources available.

Assessment

Marking will be carried out regularly and in accordance with the school's marking guidance.

Assessment is an integral part of teaching and learning and is a continuous process. Teachers make assessments of children daily through;

- regular marking of work
- analysing errors and picking up on misconceptions
- asking questions and listening to answers
- facilitating and listening to discussions
- making observations



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These ongoing assessments inform future planning and teaching. Lessons are adapted readily and short term planning evaluated in light of these assessments.

Termly assessments are carried out across the school using PUMA tests (Reception Summer term only) These results used alongside judgements made from class work support the teachers in making an assessment for each child which in line with the assessment policy they enter on to EAZMAG. Pupil Progress meetings are timetabled each term for all classes. Progress of pupils is discussed and appropriate intervention considered and put in place where appropriate. Y2 and Y6 complete the national tests (SATs) in May.

Special educational needs and disabilities (SEND)

Daily mathematics lessons are inclusive to pupils with special educational needs and disabilities. 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/or the class teacher.

Equal Opportunities

Positive attitudes towards mathematics are encouraged, so that all children, regardless of race, gender, ability or special needs, including those for whom English is a second language, develop an enjoyment and confidence with mathematics. This policy is in line with the school's 'Equality and Diversity' policy.

Monitoring and Review

It is the responsibility of the mathematics team to monitor the standards of children's work and the quality of teaching in mathematics. The mathematics lead is also responsible for supporting colleagues in the teaching of mathematics, for being informed about current developments in the subject and for providing a strategic lead and direction for the subject in the school. The mathematics subject team gives the headteacher an annual summary report which evaluates strengths and weaknesses in the subject and indicates areas for further improvement. The mathematics subject leader has specially-allocated time for fulfilling the vital task of reviewing samples of children's work and visiting classes to observe teaching in the subject.