



## Filey C E Nursery & Infants Academy

*'Inspiring Confident Learners, Reflecting Christian Values'*

We endeavour to uphold Christian teaching to:

*"Shine as lights in the world and love as Jesus loves us" (Philippians 2:15, John 13.34)*

Our school is a Church of England School rooted in 'Compassion, Community and Friendship'.

### Mathematics Policy

Filey CE Infants and Nursery Academy believes that:

Mathematics is a creative and highly interconnected subject. It is essential to everyday life, critical to science, technology and engineering, and necessary for financial literacy and most forms of employment. Mathematics teaches us how to make sense of the world around us, through developing a child's ability to calculate, to reason and to solve problems. A high-quality mathematics education therefore provides a foundation for understanding the world, the ability to reason mathematically, and an appreciation of the power mathematics. We promote a sense of enjoyment and curiosity about the subject at our school.

This policy outlines the teaching, organisation and leadership of mathematics taught and learnt at Filey CE Nursery & Infant Academy. The school's policy for mathematics is based on the National Curriculum in England September 2014.

#### Aim

At Filey CE Nursery and Infants Academy we teach a coherent sequence for maths curriculum which cumulatively builds upon prior knowledge. We follow a teaching for mastery approach using The five big ideas from NCETM. We use our maths curriculum as a vehicle to deliver lessons which include: representations and structure, mathematical thinking, variation and fluency in a coherent manner. This means pupils acquire a deep, long term, secure and adaptable understanding of the subject, which they can apply in real life situations through our enterprise projects.

Teachers use every relevant subject to develop children's mathematical thinking and experiences both inside and outside the classroom. We develop children's numeracy and mathematical reasoning in all subjects so that they understand the importance of mathematics.

Children are taught to apply arithmetic fluency to problems, understand and use measures, make estimates, check their work, collect, present and analyse data and apply mathematics to problems. We ensure the quality and variety of language that children hear and speak are key factors developing their mathematical vocabulary, supporting our whole school oracy.

We provide adequate time for developing numeracy skills and each class teacher will provide a daily lesson, this may vary in length but will usually last for about 45 minutes in Key Stage 1. Within these lessons there will be a good balance between whole-class, group teaching and individual practice. Separate fluency sessions are also taught and delivered using the NCETM Mastering Number Programme.

In line with the national curriculum for mathematics, Filey Infants aims are to ensure that all pupils:

- 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.
- break down problems into simpler steps and persevere in answering.

Our aims for all children are:

- All pupils access a broad and balanced maths curriculum.
- To present maths as an exciting, challenging and creative subject.
- Develop strong foundational knowledge of mental strategies to enhance their reasoning and problem solving skills.
- Ensure that pupils become resilient and reflective learners.

The National Curriculum sets out yearly programmes of study for key stage 1. This ensures progression in the teaching of mathematics.

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

- Have a deep understanding of number to 10, including the composition of each number;
- Subitise (recognise quantities without counting) up to 5
- Automatically recall (without reference to rhymes, counting or other aids)
- Number bonds up to 5 (including subtraction facts) and some number bonds to 10, including double facts.
- Verbally count beyond 20, recognising the pattern of the counting system
- Compare quantities up to 10 in different contexts, recognising when one quantity is greater than, less than or the same as the other quantity.

- Explore and represent patterns within numbers up to 10, including evens and odds, double facts and how quantities can be distributed equally.

The EYFS Statutory Framework 2021 sets the standards for the learning, development and care of children from birth to five years old. This is supported by the 'Birth to Five' non statutory guidance.

### SEND/Inclusion

Filey CE Nursery and Infants Academy is an inclusive school that allows pupils of all learning styles to succeed and access the curriculum. Teachers carefully plan lessons to accommodate pupils with special educational needs or disabilities so that the pupils develop confidence in Mathematics and foster a love of learning. Support staff are deployed effectively to assist pupils who require additional support and our range of representative structures cater to a variety of learning styles. Our SENCO works closely with the Maths Lead to ensure that all learners can achieve.

### Foundational Fluency

#### Foundational Fluency Sessions

- These are 10-15 minute sessions taught separately to the main Mathematics lesson.
- Daily foundational fluency sessions give pupils the opportunity to learn foundational knowledge to automaticity.
- NCETM RTP documents are used as an assessment tool in KS1.
- EYFS Mastering Number sessions 4x a week - In EYFS, children learn the composition of numbers within 10.
- KS1 Mastering Number 4x a week- In KS1, children learn the composition of numbers within 20.

Within the NCETM mastering number programme children learn the structures of addition and subtraction and how to develop a good 'sense of number'.

### Links between mathematics and other subjects

Mathematics contributes towards many subjects within the school curriculum and opportunities will be sought to draw mathematical experience out of a wide range of activities including the outdoor areas. Enterprise allows children to begin to use and apply mathematics in real contexts as they work through the whole process from sourcing to selling. We focus on transferable skills that the children can use in later life.

Computing is also used in various ways to support teaching and to motivate children's learning. This will involve computers and audio/visual aids and will be used when it is the most efficient

and effective way of meeting the lesson objectives. The visualiser is used to model examples and share children's work. This way of working leads to greater class discussion and participation.

### Assessment

Assessment will take place at three connected levels: short-term, medium-term and long-term. These assessments will be used to inform teaching in a continuous cycle of planning, teaching and assessment. Short-term assessments will be an informal part of every lesson to check pupils' understanding, give verbal feedback to children and give teachers the information to help them plan and adjust day-to-day lesson plans. Medium-term assessments will be the regular checking of objectives covered from our mid term plan assessments. This will then inform any intervention action that may need to be taken. Long-term assessment will take place towards the end of the school year to assess and review pupils' progress and attainment. These will be made through teacher assessments and National Curriculum mathematics tests for pupils in year 2. Teachers will draw upon their class record of attainment against key objectives from our MTP document as a summative record. Accurate information will then be reported to parents and the child's next teacher.

### Role of the Mathematics Lead

- Support maths planning across school, using the NCETM spines and documents.
- Lead by example in the way they teach in their own classroom.
- Prepare, organise and lead CPD, with the support of the Headteacher.
- Work with the SENCO and Maths Governor.
- Team team and coach staff to develop their confidence.
- Attend CPD provided by EBOR Academy Trust and the Yorkshire Ridings Maths Hub.
- Discuss regularly with the Headteacher and Governors the progress of mathematics in school.
- Continue to work with the Yorkshire Ridings Maths Hub as part of the teacher research group model.
- Complete children's 'book look' and talk to children about their mathematical experiences.
- Keep an updated mathematics action plan, moderate assessments and audit resources.
- Monitor progress of children and identify gaps in their learning.
- Monitor progress of pupil premium children and SEND children, highlighting where extra support is needed.

### Role of the Headteacher

- With the subject leader, keep the governing body informed about the progress of mathematics.
- Ensure that mathematics remains a high profile in the school's development.

- Deploy support staff to maximise support for mathematics throughout school.

This policy was reviewed and amended in September 2023

To be reviewed September 2024

A Jackson