

Maths

Firsy Foundation

Updated: September 2021

Intent

Aims

The National Curriculum has been planned to ensure all children:

Become **fluent** in the fundamentals of mathematics, including through varied and frequent practice with increasingly complex problems over time, so that pupils develop conceptual understanding and the ability to recall and apply knowledge rapidly and accurately.

Reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.

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.

Our aims, which is outlined within our maths vision in the maths policy, says that we want our children to:

- Show enjoyment and feel excited whilst being immersed in their learning of mathematics.
- Have a positive attitude towards maths lessons and solving problems by acknowledging our FIRSY values: Fascinated, Independence, Respectful, Sociable and You Can Do It!
- Acquire a deep, long-term, secure and adaptable understanding of mathematics.
- Be continually challenged in their thinking and acknowledging the need for some to gain a greater depth of proficiency and understanding.
- Become confident mathematicians, which allows them to, upon leaving Firs, apply their learning in everyday life, contribute to being a positive member of society, and continue to be successful in secondary school.

Meeting the needs of our pupils

No pre-judged levels of ability

For every new objective we give the pupils a pre-task. This is then used to start the pupils at the correct point and make sure all children are challenged and exposed to new learning.

Vocabulary

Vocabulary is displayed on the working wall that children are expected to use and understand within the unit of work.

Concrete, Pictorial and Abstract

To meet the needs of pupils, particularly SEND, concrete resources may be used to scaffold the learning more within the lesson. This means that all pupils are exposed to and have opportunity to meet the same learning objective regardless of their starting points.

Oracy

Through the concept of mastery, using the mastery glasses, pupils are exposed to vocabulary that will help them explain their thinking. This is modelled and expected throughout the lesson and can be supplemented with the 'Speakwell Toolkit' to support sentence structure. The mastery glasses with key questions are displayed on every working wall.

Cultural Capital

The structure of the maths lessons enables everyone to succeed, at their own pace and helps children understand that they are all capable of achieving mastery regardless of starting points.

Parents

To support our parents' understanding of maths and the curriculum, in 2018—2019 a 'Maths Masterclass for Parents' was carried out for a period of 8 weeks.

Implementation

Linking Learning: EYES, KS1 and KS2

The EYFS curriculum has been matched to the National Curriculum expectations for year 1. This allows teachers to know starting points for GLD (Good Level of Development) children as they begin their learning in year 1. We follow the National Curriculum for maths, which White Rose Maths is planned from which ensure learning is progressive throughout the year groups.

Retention and Revisiting

Pre-tasks are given at the start of each lesson to assess what the children already know. This may be used to assess previous year group statements or the one about to be taught to allow the teacher to pitch the lesson correctly. White Rose 'End of Unit Tests' may also be used to check what the child has retained from the last unit of work. There is also many opportunities for revisiting elements of maths throughout the year, place value in money, multiplication in measurements, fractions in ratio as well as the planned opportunities in the White Rose sequence for consolidation and application (year 6).

Timetabling

Maths is taught for 5 lessons per week. Classes may also plan in additional time for mental maths or timestable practice. Morning maths is used for some groups to reinforce and recap concepts taught.

Pupils' Starting Points

Children may be required to take part in pre-teaching or same day interventions to close gaps and prepare children for next steps in learning to enable all pupils to move on together. The expectation is for all children to be taught the age-related expected standards as outlined in the National Curriculum. Due to the lesson structure, pupils are assessed constantly throughout the lesson and move on at their own pace.

SEND and Disadvantaged

Where possible, all SEND pupils are exposed to age-related objectives, however this may be taught practically in response to the pupils needs. The ability of the children is not assumed and instead assessed regularly along with all pupils in the class through the pre-task. Where SEND pupils have maths targets in their IPM, it is ensured that they still get their own teaching input and are exposed to teacher time.

Staff Knowledge

Regular staff meetings and CPD opportunities are sequenced within the academic year. This may include completing the KS2 tests, taking part in teacher-triads to share practice with others and completing staff voice.

Progress, Attainment and Future Planning

The journey of the maths lesson is recorded in maths books, all pupils are expected to access the problem solving and reasoning every lesson. At the end of each lesson, self assessment and teacher assessment is completed against the success criteria. This enables future lessons to be adapted.

End of term NTS maths tests are used to assess children's ability to recall previously taught concepts. White Rose End of Unit tests may supplement this to test more recently taught objectives.

Impact

Monitoring

Book scrutinies, staff voice, pupil voice, lesson walkthroughs, data analysis, question level analysis.

Achievement

Every child is accessing age-related learning and the goals all higher. Every child, including SEND and disadvantaged have the equal opportunity to succeed in maths by being supported in a way that meets their needs (e.g. concrete apparatus, pre-teach vocabulary).