

Philosophy

Mathematics teaches children how to make sense of the world around them through developing their ability to calculate, reason and solve problems. It enables children to understand relationships and patterns in both number and space in their everyday lives. Through their growing knowledge and understanding, children learn to value the contribution made by many cultures to the development and application of mathematics. The Mathematics curriculum should provide breadth and balance and be relevant and differentiated to suit the needs of all children in the modern world. It should be flexible, motivating all pupils, thus encouraging success at all levels. Our Maths policy has been adapted as a result of changes to the curriculum, recognising maths as a mastery subject, and outlines how we will deliver a consistent approach to the teaching of maths across the school.

Aims

- To equip all children with basic numeracy skills for life.
- To promote confidence and competence with numbers and the number system.
- To promote enjoyment of learning through practical activity, exploration and discussion.
- To encourage a positive attitude towards Mathematics.
- To develop a practical understanding of the ways in which information is gathered and presented.
- To explore features of shape and space, and develop measuring skills in a range of contexts.
- To use and apply Maths skills across the curriculum, promoting the ability to solve problems through connecting ideas, decision-making and applying mathematical skills in a range of contexts and subjects.
- To promote mathematical reasoning by following a line of enquiry, developing an argument and making justifications using mathematical language.
- To develop the correct use and understanding of a range of mathematical vocabulary.
- To understand the importance of Mathematics in everyday use, especially in relation to essential life skills, such as telling the time and understanding money.

Pupils' spiritual development will be enhanced within the subject by fostering: -

- An ability to reason and solve problems in an ever-changing society.
- A sense of responsibility by experiencing every-day life situations.
- An ability to question others' actions.
- An ability to reflect on learning and explain ones' own ideas.

Objectives

Planning

The curriculum has been reviewed by all staff and long term planning will include all of the programmes of study from Curriculum 2014.

Medium term plans will take a mastery approach based on the Power Maths scheme of learning.

Through careful planning and preparation, we aim to ensure that throughout the school the children are given opportunities for:

- Problem solving and reasoning activities
- Practical investigations involving concrete equipment.
- Mathematical songs and rhymes
- Questions that are carefully crafted to expose learning.
- Conceptual Variation: the opportunity to work on different representations of the same mathematical idea.
- Procedural Variation: relationships between procedures.
- A range of methods of calculating eg. mental, jottings, informal and formal written methods.

Teaching and Learning

All teachers will follow the Power Maths Mastery programme to support their planning and delivery of Mathematics.

Alongside the Power Maths Mastery programme, the Foundation Stage teachers will use the Statutory Framework for the Early Years to support their teaching of Mathematics in the Foundation Stage.

Cross-curricular links will be made wherever possible to enhance and reinforce mathematical skills.

A wide range of concrete and visual equipment will be available in every class to support the Power Maths Mastery programme.

- Numicon, tens and ones, place value counters, arrow cards, tens frames, part whole models, number lines, number squares, digit cards and small apparatus are used to support learning

KS1 and KS2 teachers will use KIRFS (Key Instant Recall Facts) to teach mental recall. New KIRFS will be given to the children every half term. These are taught as oral starters on a daily basis.

Foundation Stage teachers will use the mental maths scheme developed by the school to include mental recall included in the Statutory Framework for the Early Years.

Differentiation

All staff will have high expectations of all children irrespective of ability, and will encourage them to be successful and achieve their full potential. Differentiation should be incorporated into all Mathematics lessons and can be achieved through varying learning tasks, or the variation of support through the use of concrete, pictorial and abstract methods.

Assessment

Marking annotations will be used in children's books to support them during the lesson and when they revisit the learning to address any misconceptions. Annotations will also show where children have accessed any concrete equipment within lessons. Progress in the lesson and over time is shown using these annotations.

The Focus Ipad assessment grids are used for formative assessment.

TAF (Teacher Assessment Framework) assessments are used in Y2 in line with the end of Key Stage 1 Statutory Assessments.

Summative assessment methods are used regularly to inform daily practice (PUMA, Power Maths - progress and end of half term tests).

Monitoring

The Head and SLT will:

- Support staff by sharing good practice.
- Monitor teaching and learning across the school.
- Monitor planning and assessment.
- Support all staff with training and resources.

The Maths Lead will:

- Monitor flipchart planning across the school.
- Monitor teaching and learning through book scrutiny and pupil/staff voice.
- Keep up to date with new developments in Maths and feedback to staff.
- Formulate, maintain and review the Maths policy.
- Support and lead all staff with the teaching and learning of Maths.
- Monitor assessment to ensure continuity across the school.
- Use assessments and data analysis to monitor small group and individual interventions.

The class teacher will:

- Be responsible for the teaching and learning as set out in this policy.
- Provide flipchart planning based on the Power Maths programme of learning.
- Provide assessment data.
- Use evidence from the teaching and assessment of Maths to inform future planning.
- Plan and implement same day intervention with any children in their class.

Updated: November 2020

Agreed by all staff

Review: November 2022