



Mathematics

Intent, Implementation and Impact Document

Intent

- To enable pupils to be proficient, competent and confident with numbers, shapes and measures, and to have the ability to solve routine and non-routine mathematical problems.
 - To foster positive attitudes towards mathematics by developing pupils confidence in using mathematical equipment and vocabulary, and through developing their mental strategies.
 - To develop the ability to communicate mathematics.
 - To develop an understanding of mathematics through a process of enquiry and experiment.
- These will, in turn, work towards the aims of the National Curriculum (2014) for all pupils to:
- To 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.
 - To reason mathematically by following a line of enquiry, conjecturing relationships and generalisations, and developing an argument, justification or proof using mathematical language.
 - To 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.

Implementation

We use the White Rose Maths Hub long-term, medium-term and small steps planning and the associated resources. This ensures progression both in objectives and calculation methods. Teachers also have access to the Twinkl White Rose Maths resources that re designed to run alongside the scheme. Teachers are also encouraged to use NRich, NCETM and Rising Stars resources and publications to assist in planning for fluency, problem solving and reasoning. The teaching of mathematics will be in line with the whole school teaching and learning policy. It will also be wholly compatible with the school aims and mission. Depth of knowledge is the basis of our teaching and challenges/activities are encouraged to follow in these four progressive steps: 1. FLUENCY - Recall of facts and application of procedures 2. PROBLEM SOLVING - Use facts to solve simple problems 3. PROBLEM SOLVING - Use facts and procedures to solve more complex problems 4. REASONING - Understand and use facts and procedures creatively to solve complex or unfamiliar problems. Feedback will be given in one with schools Feedback Policy which encourages instant feedback during lessons and whole class feedback at the start of the subsequent lesson. Assessment trackers are maintained throughout the year.

Impact

Children talk enthusiastically about their maths lessons and speak about how they love learning about maths. They can articulate the context in which maths is being taught and relate this to real life purposes. Pupils know how and why maths is used in the outside world and in the workplace. They know about different ways that maths can be used to support their future potential. Pupils use acquired vocabulary in maths lessons. They have the skills to use methods independently and show resilience when tackling problems and they are fluent and accurate when using calculations to solve these problems. Attainment will remain high and progress will be at or above the expected norms.