

Mathematics Curriculum Statement

Rationale

Mathematics is integral to all aspects of life and within Woodview we recognise the importance of providing a meaningful mathematics curriculum; a stimulating environment and appropriate resources to enable all our students develop their mathematical skills to their full potential.

Although maths is organised into apparently distinct domains, students are given the opportunity to make rich connections across mathematical ideas to develop fluency, mathematical reasoning, and competence in solving increasingly sophisticated problems.

Intent of Our Mathematics Curriculum

It is our aim that all our students will acquire lifelong skills in mathematics that enable a better understanding of the world they live in as well as developing logical reasoning, problem solving and the ability to think in abstract ways.

We aim to maximise the potential of our learners and enable them to achieve their personal aspirations, as well as providing them with the skills necessary for them to meet the social and economic challenges of their adult life.

By providing students with opportunities to develop their knowledge, skills and confidence in the fundamentals of mathematics, we are supporting them to:

- become mathematical problem solvers
- reason mathematically
- apply their mathematical skills in a range of contexts (become fluent)

Our curriculum is designed to enable all students to achieve a maths qualification appropriate to their potential, as well as develop functional skills that will support them in everyday life.

In line with the the National Curriculum and accredited courses, our maths curriculum provides opportunities for students to:

- show initiative in solving problems in a wide range of contexts, including the new or unusual.
- think independently and to persevere when faced with challenges, showing a confidence of success.
- embrace the value of learning from mistakes and false starts.
- reason, generalise and make sense of solutions.

Implementation of Our Mathematics Curriculum

Our long-term plans are designed to enable students to develop, consolidate and build knowledge and skills as they progress through the school, as well as develop a broad mathematical understanding.

Well-constructed and well-planned lessons motivate our students to become successful learners and develop as healthy, confident individuals. We provide practical learning opportunities, which add to the building of categorisation skills as well as provide meaning to abstract language and enable students to transfer skills and learning across contexts, thus embedding it.

Each term includes study of an aspect of number and at least one other area from measurement (height, length, weight, capacity and time), geometry (2D and 3D shapes, position and space) or statistics (data handling, surveys and graphs). Over time, revisiting key areas enables development of arithmetic and mental calculation strategies and problem-solving activities which require students to apply their knowledge and understanding of concepts. Varied and frequent practice with increasingly complex problems over time gives students the opportunity to develop conceptual understanding and the ability to recall and apply knowledge at their own individual pace. The school's holistic approach ensures that maths forms part of many interactive learning experiences across a range of curriculum areas of learning, and the multi-sensory approach embraced by the school enables learning to become more deeply embedded.

Students are provided with a variety of opportunities to develop and extend their mathematical skills including group work, paired work, whole class teaching and individual work.

A range of practical, tactile resources are used to provide a multi-sensory approach to developing maths knowledge and understanding appropriate to individual students' needs and abilities.

Students access four mathematics lesson each week and reinforcement of mathematical understanding is achieved through cross-curricular tasks, for example in science (measurement and timing, recording and displaying results), geography (position and direction), history (using place value to create time lines), DT (measurement), music (timing, counting) ...

By the end of year 9 a decision is made, in collaboration with the student and their family, in respect of the route students will take from key stage 4 onwards. We aim to maximise maths accredited options for students and currently these include:

- Maths Edexcel Entry Level Certificate 1,2,3
- Maths Edexcel Functional Skills Levels 1,2
- Edexcel GCSE

Entry level and functional skills work towards building useful life skills using a range of practical, key mathematical skills and concepts including number, position & size, simple lists and charts, and time, through every day, real-life situations. These support students with their independence, problem solving and reasoning skills, whilst continuing to develop mathematical fluency and confidence.

How We Measure the Impact of Our Curriculum

We believe it is essential to continuously review the impact of our teaching and learning to ensure an engaging, high-quality education, that provides students with solid foundations in number, measurement, geometry, and statistics. To do this we continuously assess the progress of our students and adjust our teaching accordingly. When appropriate, additional strategies are put in place to support students not making expected progress.

We believe formative assessment is vitally important to support our students to continue to make progress in their mathematical learning; the details of how we do this can be found in our *Assessment and Marking Policy*.

In addition to this informal, formative evaluation, the impact of our maths teaching will be monitored termly through the summative evaluation of objectives, which is then reported to parents. This is carried out in a number of ways, all of which are monitored through our robust quality assurance programme, which involves learning walks, work scrutiny and lesson observations, as well as garnering feedback from the students.

When students take qualification, internal moderation of portfolios and test/exam results will also be used to assess the impact of the curriculum, as well as teaching and learning.

References:

https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1007446/6.7534_DfE_Development_Matters_Report_and_illustrations_web__2_.pdf

<https://www.gov.uk/government/publications/national-curriculum-in-england-mathematics-programmes-of-study>