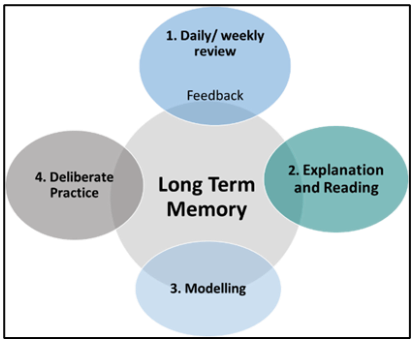
Bishop Walsh Catholic School

Guided by Christ, we aspire to achieve



Curriculum Intent and Implementation

Mathematics Department Intent

Mathematics is essential in helping us understand and navigate the modern world. It plays a vital role in so many aspects of life, providing a broad range of skills in problem solving, logical reasoning and flexible thinking. It is the aim of Bishop Walsh Catholic School to support every student, whatever their ability, to achieve their full potential and develop a deep understanding of mathematics. The department offers a supportive environment, focused on developing a culture of success and nurturing the individual. We aim to inspire students to want to continue the study of mathematics beyond GCSE and into Further and Higher Education, as well as equip them with the mathematical skills required for adult life and their chosen careers.

We believe that students deserve a creative and ambitious mathematics curriculum, rich in skills and knowledge, which ignites curiosity and effectively prepares them for everyday life and future employment. Our mathematics curriculum will give students the opportunity to:

- become fluent in the fundamentals of mathematics 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;
- 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;
- communicate, justify, argue and prove using correct mathematical vocabulary;
- develop their character, including resilience, confidence and independence, so that they contribute positively to the life of the school, their local community and the wider environment.

Daily/weekly Review:

Maths lessons frequently begin with a retrieval task which tests prior knowledge from previous lesson and from previous topics. In maths, students use their booklets, exercise books or mini whiteboards to answer these questions. This allows the teacher to check the pupils' prior knowledge quickly and respond accordingly. We encourage independent study across all Key Stages to build pupils' confidence and resilience. To this end, our home learning programme

focuses on retrieval practice and effective study skills, as well as stretching and challenging our most able.

At KS4 and KS5, past paper questions are used frequently to allow students to review and apply their knowledge to unfamiliar situations and improve their examination technique.

Explanation and reading:

Maths is not just about being able to follow a process. It is about understanding why this process is appropriate, so that pupils can adapt their knowledge and skills to unfamiliar situations. Teacher explanations are a key part of our delivery of maths lessons and we always take time to ensure pupils understand the maths. Pupils are encouraged to seek clarification from their teacher if they are unsure about anything, either within the lesson or outside of lesson time.

We include glossaries in our KS3 booklets to help ensure pupils are confident with understanding and using correct mathematical language to communicate and justify their thoughts and ideas. We also focus on teaching students to interpret exam questions and understand what each question requires.

Modelling:

In maths, modelling is a key feature of every lesson. Teachers use visualisers extensively to demonstrate methods and processes, scaffold examples, analyse exam questions and model their solutions. This is always an interactive process, where teachers guide pupils through the examples, questioning as they go and inviting pupils to think about what they are doing and why, so that they become confident with the skills and processes.

Deliberate Practice:

Deliberate practice is also an essential element of every maths lesson. Pupils need to practise their skills so that they are confident with the processes and can apply these processes appropriately to questions in any context. We provide a wealth of carefully selected questions in the pupils' booklets and textbooks, and by using past exam questions or other resources.

Teachers will guide students' practice, supporting students to become fluent in maths and resilient problem solvers.