

Maths KS4 Curriculum Overview

Context of the department at KS4

All students in years 9, 10 and 11 study mathematics and have 7 lessons per fortnight. There are 8 members of staff who teach in this key stage. 689 students study Mathematics at KS4 ; 234 in Year 9, 240 in Year 10 and 215 in Year 11. Ben Walker, as KS4 co-ordinator is responsible for progress within this key stage, supported by Janet Keighley as Head of Subject. The course is assessed by 3 terminal papers, each lasting 90 minutes and worth 80 marks per paper, giving a total of 240 marks available.

Intent at KS4

We aim for students to enjoy mathematics and increase their confidence in their own skills. Building on the skills and understanding they have from KS3 we want students to be able to use and apply these skills in more complex problem solving and real life settings, as well as being confident in their own ability and exam and real life ready. Students need to be able to use and apply their maths in real world settings, particularly with the new focus on problem solving and reasoning at KS4. The scheme of work supports all learners as topics are clearly split and ideas of resources supplied for different abilities. The learning is a mixture of individual and groupwork, allowing students to deepen their relationships with and tolerance of other members of our school community. The students are taught how to self-manage homework and how to deal with any situations that may arise from it. The students are also taught to appreciate the way mathematics is used in real life and the possible career options which success in mathematics would open up. The students are also encouraged to develop their skills as resilient learners whilst preparing for their end of key stage GCSE examinations. Students work towards the AQA mathematics gcse (8300) with Tiers of Entry for each student being carefully considered to allow every student to access their best possible outcome at the end of Year 11.

Students are consistently supported and their progress carefully tracked throughout their 3 year GCSE course. There will also be some students who will access intervention to help them where extra support is needed.

Implementation at KS3

The programme of study begins in Year 9 with revision of number skills as this is the building block upon which all other topics are built. The students are put into 9 sets based on their ability and progress they have shown during the previous 2 years at Saint John Fisher Catholic High School. The topics studied build on each other in difficulty, starting with basic number work and ensuring the KS3 skills are solid and then working up towards the final examinations at the end of Year 11.

Consistency is monitored through book looks, learning walks and sharing best practice in department meetings. Staff teaching similar sets are encouraged to team plan and share resources wherever possible. Some students will take part in Maths Challenge and there is intervention at both Foundation and Higher Tier and past paper drop in sessions available to all students in Year 11 within the department. Literacy is developed in Mathematics using keywords and checking the students understanding of the keywords as well as their ability to correctly spell them. This is also emphasised and worked on in the explaining style questions that students will encounter within their GCSE examination. A variety of lesson styles, including group and paired work, ensures that the students

are experiencing lessons, which keep them interested. Revision techniques will be taught from year 7 in order to encourage the students and the effective use of DIRT allows students to begin to reflect on their own understanding from their first lessons in school. Students will have regular topic tests, at least one per half term and starters and plenaries alongside homework allow staff to check the ongoing understanding the students have of the subject. The use of mock examinations in both Year 10 and 11 allows the students to be comfortable and confident in an examination setting as well as helping them to target their revision more effectively and work towards being more independent learners as they aim for KS5 courses. Home learning includes the use of My Maths for both homework and students can also access this for independent revision. The students are also given information about other websites, such as Corbett Maths, to allow them to develop their independent learner skills in preparation for KS5 and life beyond school.

Teaching and Learning is an ongoing priority, with staff attending relevant and effective CPD and training sessions within school, as part of the Teaching Alliance and also those provided by external providers. Department time is used to share good practice and staff work collaboratively to support each others work. Learning walks, performance management and book looks are all used to assess the changing needs of both the staff and the students along the KS4 journey.

Impact at KS4

Students progress will be demonstrated by their ability to articulate their understanding and by the outcomes from the assessments. They will also have the opportunity to show a deepening understanding in their reflection work, in which they respond to feedback given by their teacher. Data gathered from mock examinations and past papers allows students to see they are improving as the year goes on and thus increases their confidence levels. The skills that the students have cemented in KS4 will then be directly transferable in to their other GCSE courses and into KS5 and beyond into real life. The use of different learning styles in lessons allows all learners to make good progress and breaks down barriers. Use of student voice will allow us to listen to their experience of maths lessons and adapt styles of teaching appropriately where needed. Collaborative learning between the students allows them to learn to teach others with respect and to listen to other points of view and to be tolerant of all people. Regular student voice allows us to understand how students are feeling about their maths lessons and adapt if necessary to ensure the necessary engagement from the students in lessons.