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Case Study	St John Baptist High School
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Address	Glan Road, Aberdare, Rhondda Cynon Taf, CF44 8BW.
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Number of students aged 16 – 18 2013/14	250
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**Case Study:**

**Teacher and FMSP Tutor – Mr Gareth Chivers – Head of Mathematics**

**Further Maths Delivery:**

There are 5 staff teaching A Level Mathematics of whom 3 teach Further Maths modules. In year 13 there are currently 30 pupils studying Mathematics A level, 4 of whom are also studying Further Maths A level. In Y12 there are 70 pupils studying Mathematics AS with 11 pupils also studying Further Mathematics. With the new specifications pupils will sit GCSE's in November and Additional Mathematics at the end of Year 11.

In Year 12 all pupils are timetabled 8 hours per fortnight teaching. In Year 13 they combine with the Mathematics group for M1 for 2 hours per fortnight. They are timetabled for 6 hours per fortnight for FP1, FP2 and FP3. These 8 lessons are timetabled within the option block. Pupils are then timetabled a further 5 lessons per fortnight, two for S2 and 3 for M2 and M3. These 5 lessons are timetabled but the timings are negotiated between staff and pupils when they are mutually free.

As a department the challenge is to maintain a challenging course to study for Y11 pupils in order to prepare them for A level. Another is to develop more staff to be able to teach more Further Maths modules.

I would hope that the size of the class grows in size. This year we have two pupils from the Cynon Valley Consortium studying Further Mathematics for the first time. We also have students joining our Sixth Form from the Merthyr schools, many have chosen Mathematics and six have chosen Further Mathematics.

### **Delivery of Further Mathematics tuition through FMSP Wales**

I have been a tutor with FMSP since its introduction. I have taught modules online and delivered face to face revision sessions. This has allowed me to access Integral which has a vast amount of resources that are very useful.

I have sent students to the Advanced Algebra Masterclass. This improves their confidence in problem solving and using their algebraic skills. It also gives them an invaluable experience in meeting fellow students from other schools at a University Campus.

FMSP has also supported and helped to prepare students for STEP papers. These lectures really do enrich their experiences of Higher level Mathematics. Also FMSP has given mock interviews for students applying to Oxbridge, given them an experience to have to discuss Mathematical problems with someone they have not met before.

Students have attended revision sessions both online and face to face and found them of benefit. As a department we use the literature produced by FMSP to inform students of the benefits of studying Further Mathematics on Sixth Form Open evenings.

### **Benefits of Studying Further Mathematics**

Offering Further Mathematics allows pupils to be stretched throughout KS4 and KS5. These pupils gain confidence in their Mathematics ability and gives them an advantage when applying to the top universities for Mathematics related subjects e.g. Oxbridge, Warwick University, Bath University. A pupil who only studies Mathematics A level will have no knowledge of Complex Numbers or Matrices, two key topics on degree courses for Mathematics related degrees.

Sometimes students who wish to study Medicine do not realise that a number of Universities will include Further Mathematics as one of the subjects in their offer, the FMSP produces a document to show those Universities that do. This has been helpful when pupils decide their subjects in Y13 following their AS results.

The FMSP has given students the opportunity to be taught by different lecturers/teachers from other institutions. They learn to adapt to other peoples' methods and different approaches enriching their experiences of the subject.