**All Saints’ Academy Mathematics KS5 Curriculum**

**A’ Level**

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| Cycle | Year 12 | Enrichment | Year 13 | Enrichment |
|  | Teacher A | Teacher B |  | Teacher A | Teacher B |  |
| 1 | *Pure:*Algebraic ExpressionsQuadratics and Graphs*Statistics:*Data Collection, RepresentationLocation & SpreadCorrelationProbability | *Pure:*InequalitiesCircles*Mechanics:*ModellingConstant AccelerationForces | UKMT Senior Maths Challenge | *Pure:*Algebraic MethodsFunctionsNumerical Methods*Statistics:*Regression and CorrelationHypothesis TestingProbabilityNormal Distribution | *Pure:*Sequences & SeriesBinomial ExpansionRadiansTrigonometric Functions*Mechanics:*MomentsForces & Friction | UKMT Senior Maths Challenge |
| Careers | * **“Python for A’ Level Maths & Beyond…” Online Workshop**
* **What is a Climate Scientist?**
 | Careers | * **“Python for A’ Level Maths & Beyond…” Online Workshop**
* **What is an Actuary?**
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| 2 | *Pure:*Algebraic MethodsBinomial ExpansionTrigonometry | *Pure:*CalculusExponentials & Logarithms | University Lecture | Parametric EquationsDifferentiationIntegration | VectorsProjectilesFurther Kinematics | University Lecture |
| Careers | **What is a Software Engineer?** | Careers | **Analysing Data in Digital Media** |  |
| 3 | *Statistics:*DistributionsHypothesis Testing*Pure:*Algebraic Methods | *Mechanics:*Variable Acceleration*Pure:*Functions |  | *Revision and Preparation for Final Exams* | *Revision and Preparation for Final Exams* |  |
| Careers | **What is Location Planning?** | Careers | **Work in Orthotics and Prosthetics** |  |

**Further Maths AS Level**

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| Cycle | Year 12 | Enrichment | Year 13 | Enrichment |
|  | Teacher A | Teacher B |  | Teacher A | Teacher B |  |
| 1 | *Pure:*Complex NumbersArgand Diagrams | *Pure:*Series SummationMatrices | UKMT Senior Maths Challenge | *Pure:*Volumes of Revolution*Decision:*Linear Programming | *Mechanics:*Momentum & ImpulseWork, Energy & Power | UKMT Senior Maths Challenge |
| 2 | Polynomial RootsProof by Induction | Linear TransformationsVectors | University Lecture | Critical Path Analysis  | Elastic Collisions | University Lecture |
| 3 | *Decision:*Graphs & NetworksRoute Inspection | *Decision:*AlgorithmsSorting & Packing |  | *Revision and Preparation for Final Exams* | *Revision and Preparation for Final Exams* |  |