

Our curriculum is carefully sequenced to ensure cumulative knowledge and progression. Each unit builds on the last, with clear concepts that students must grasp to progress. We define end points to illustrate what mastery looks like by year-end.

Location of resources:	JOHN Maths Staff - Documents
Curriculum intent and rationale:	John Port Spencer Academy Share Point – Maths Staff – Schemes of Work – KS5 – Core Maths <i>Every student to be the best mathematician they can be.</i> Our aim is that every student has the opportunity to reach their potential mathematically and to be equipped to apply their mathematical knowledge to other subject areas, future courses, careers and everyday life. We aim for students to acquire substantive knowledge and procedural fluency along with conceptual understanding and the ability to apply reasoning and problem-solving skills. Curriculum organisation: Students receive 5 lessons each week and are taught by two teachers.
National Curriculum Links:	AQA Mathematics Level Three AQA Certificate Level 3 Mathematical Studies

What content needs to be covered? Key Knowledge and skills / misconceptions to address (with vocab in bold and spelling underlined)					
By the end of the year students will know:					
Half Term 1	Half Term 2	Half Term 3	Half Term 4	Half Term 5	Half Term 6
Students will learn key knowledge and skills about: - Types of Data - Collecting & Sampling Data - Spreadsheets - Fermi Estimation - Representing Data Numerically - Income Tax, National Insurance, Percentages and VAT. Challenge: Students are challenged to apply new knowledge in a context that requires reasoning and problem solving. Misconceptions: Students do not know enough real world information to complete a Fermi Estimation, wrong symbols used for Spreadsheet calculations and higher tax band calculation errors.	Students will learn key knowledge and skills about: - The Normal Distribution - Confidence Intervals - Interest Rates - Repayments and Credit - Financial Problems - Graphical Representations - Representing Data Diagrammatically Challenge: Students are challenged to apply new knowledge in a context that requires reasoning and problem solving. Misconceptions: Students use the variance instead of the standard deviation in calculations. Students use the percentage for APR/AER instead of a multiplier value.	Students will learn key knowledge and skills about: - Limits of Accuracy - Correlation and Regression Challenge: Students are challenged to apply new knowledge in a context that requires reasoning and problem solving. Misconceptions: Including incorrect values by writing the upper bound poorly. Students do not calculate the gradient by estimating between points.	Students will learn key knowledge and skills about: - Critical Analysis - Preliminary Material Challenge: Students are challenged to apply new knowledge in a context that requires reasoning and problem solving. Misconceptions: Students poorly breakdown a news article and do not fact check statistics.	Students will learn key knowledge and skills about: - Preliminary Material - Exam preparation Challenge: Students are challenged to apply new knowledge in a context that requires reasoning and problem solving. Misconceptions: Students should have taken their exam by this point.	Students will learn key knowledge and skills about: Students have finished the course Challenge: Students are challenged to apply new knowledge in a context that requires reasoning and problem solving. Misconceptions: Students should have taken their exam by this point.
Previous learning that is particularly relevant:					
Knowledge of previously taught content on GCSE and GCSE Statistics. Students need experience of percentages, collecting & sampling data and finding averages/spread.		Knowledge of previously taught content on error bounds and scatter diagrams from GCSE.		All knowledge by this point should have been taught. Students need to apply their skills in exam-based situations and recall methods to solve problems.	
Future Learning - How content prepares students for future units?					



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The work this term links to future learning by linking types of data with correlation, plotting scatter diagrams on a Spreadsheet and linking graphical representations to real life situations.		The work this term links to future learning by using various graphs to find errors in statements or facts stated in situations such as correlation but no causation.		The work this term links to future learning by linking all knowledge together so students can apply their skills into exams.	
Outcomes: By the end of the year pupils will be able to:					
Apply knowledge gained to A-Level style questions that require recall, reasoning and problem-solving skills.					
Assessment Strategy How we know our students are knowing and remembering more – Data from hunting not fishing, formative and summative assessment/s is used to adapt teaching and provide targeted challenge and intervention, supporting SEND and disadvantaged pupils.					
Formative: Mini-whiteboard work Homework tasks Class mini assessments Questioning: methods of participation		Summative: Class tests Mock exam in June		Opportunities to revisit past learning: Transition tasks Do it Now questions Homework tasks Practise Papers Revision lessons Afterschool drop in sessions Opportunities for homework (including apps): Completing textbook exercises Revision Practise papers Tasks from Quibans website Specific questions on a worksheet	
How is the curriculum adapted to meet the needs of SEND and disadvantaged pupils, while maintaining high expectations?					
Expected prior knowledge is revisited. Lessons are adapted to the needs of each class.					
Wider Curriculum and Enrichment – cultural capital and real world application -					
Enriching experiences: Maths Inspiration trip After school drop in sessions Math support in lower school Open Evening support		Literacy, Oracy and disciplinary language: The correct use and understanding of notation, key words and terms is essential for students to be able to understand explanations and questions and to be able to participate effectively, with confidence in discussion and written work. Key words and terms are explicit in the Scheme of Work		Cross-Curricular opportunities / Opportunities to develop ‘character’: Our curriculum supports personal development by: Careers / Employability skills: How does the curriculum link to the following employability skills:	

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Our curriculum supports the school value of: <table><tr><td>Joy</td><td>Foster enthusiasm and engagement by Using manipulatives and a variety of representations to develop understanding. By creating challenge at a level where students can achieve success.</td></tr><tr><td>Progress</td><td>We monitor and support progress through The use of assessment strategies during lessons that support adaptive teaching strategies. Analysis of termly test data with feedback and development work.</td></tr><tr><td>Success</td><td>We celebrate success by Giving verbal praise, achievement points, certificates, articles in the JPSA Newsletter.</td></tr><tr><td>Act with care, kindness, respect, and integrity</td><td>We build meaningful connections with our students by Ensuring a safe and supportive classroom environment with clear expectations of work and behaviour where there is mutual respect for all people in the room and all people feel valued.</td></tr></table>		Joy	Foster enthusiasm and engagement by Using manipulatives and a variety of representations to develop understanding. By creating challenge at a level where students can achieve success.	Progress	We monitor and support progress through The use of assessment strategies during lessons that support adaptive teaching strategies. Analysis of termly test data with feedback and development work.	Success	We celebrate success by Giving verbal praise, achievement points, certificates, articles in the JPSA Newsletter.	Act with care, kindness, respect, and integrity	We build meaningful connections with our students by Ensuring a safe and supportive classroom environment with clear expectations of work and behaviour where there is mutual respect for all people in the room and all people feel valued.	Key words are emphasised in lessons and used in discussion. Lessons include opportunities to discuss in pairs before feeding back to the whole class.	Listening – Students need to listen carefully to explanations from their teacher and listen to their peers in class or group discussion Speaking – Students need to speak their ideas on the solutions to problems using correct terminology. Problem solving – All mathematical knowledge is applied to problem solving Aiming high – Learning become incrementally more challenging as a unit progresses. Teachers aim to ensure students progress as far as they are able. Critical thinking – Considering the information available to work with and deciding how best to use it and what calculations should be done. Staying positive – – Questions can be challenging and students need to remain positive, find out how to deal with the challenges and understand that being ‘stuck’ ultimately leads to learning if dealt with positively. Leadership – Leading in a group activity or discussion. Feeding back to the whole class on behalf of a group. Teamwork – Working collaboratively when in a group or when working together as a pair. Being able to share resources fairly and sensible. Creativity – finding novel solutions, writing a clear solution, finding multiple ways of answering a problem using different skills. Employment Sectors discussed include: Trainee teachers present regarding maths in higher education
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Curriculum impact is evaluated through pupil study, work scrutiny, and progress data. Findings inform regular curriculum review to ensure continuous improvement.											
When was this curriculum last reviewed? Include date		What changes were made and why?	How is ongoing improvement ensured?								
July 2025			QA climate walks								
			Review in Faculty Time								
			Follow up from CPD Analysis of Mock data								



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		Ongoing conversation between A-Level team in staffroom AQA webinars on A level marking Casio webinars on use of calculators
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