

Ashley College Curriculum 2023-24			Subject: Mathematics				Teacher: Kader Benamara	
Groups	Brief/ Heading from subject LTPs						Subject Intent	Syllabus/ exam board qualification Suggested reading/text books
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2		
KS3	Unit 1 Number properties and calculations  Unit 2 Sequences and equations	Unit 3 Statistics  Unit 4 Fractions, decimals and percentages	Unit 5 Geometry in 2D and 3D  Unit 6 Algebraic and real-life graphs	Unit 7 Multiplicative reasoning	Unit 8 Algebraic and geometric formulae  Unit 9 Probability	Unit 10 Polygons and transformations	<p>In Maths we meet the curriculum aims of the College by:</p> <ul style="list-style-type: none"> <li>Systematic building of knowledge, sequenced to aid understanding alongside the skills to achieve the best outcome.</li> <li>Lessons are planned in a way to ensure knowledge is retained in long term memory and then can be retrieved in the future.</li> <li>Links are made to cultural capital as well as across different subjects' areas. The curriculum is made relevant to learners and the world around them.</li> <li>Reading is built into the framework to facilitate how to understand and answer maths questions.</li> </ul>	<p><b>Syllabus/ exam board qualification</b> Exam board: Edexcel GCSE (9–1) in Mathematics (1MA1)</p> <p><b>Resources:</b> Personalised Sparx Maths Tasks MyMaths (Interactive lessons), Past papers questions (CW and HW). 5-a-day Foundation Tier Themed Papers, Edexcel GCSE (9-1) Mathematics, Foundation/higher revision Book (mainly used at home for reference)</p> <p><b>Curriculum Implementation</b> At Ashley College, our Maths curriculum implementation is built on these 4 principles from cognitive science: 1) What we know influences how quickly and how well we learn new knowledge. Therefore, in maths we:  <ul style="list-style-type: none"> <li>Use the do it now task e.g. 5-a-day to recall prior knowledge.</li> <li>Use low stakes assessments to check learning at the end of a unit and respond to any gaps.</li> <li>Plan the curriculum map over the KS3 and 4 to ensure regular revisiting and building on each area of Maths.</li> </ul> 2) We learn what we think about – “memory is the residue of thought”. Therefore, in maths we:  <ul style="list-style-type: none"> <li>Provide challenging work for all our students including opportunities to apply knowledge in new contexts and combine mathematical ideas.</li> <li>Understand that new knowledge is hard at first, so we scaffold for understanding; thinking hard about something keeps it in your memory.</li> </ul> 3) Our working memory is limited when learning new information. Therefore, in maths we:  <ul style="list-style-type: none"> <li>Use our do it now tasks e.g. 5-a-day to recall key information in every lesson, including pre-requisite skills.</li> <li>Use examples broken down into small steps.</li> <li>Use I do, we do, you do to model new concepts.</li> </ul> 4) Fluency arises through practice over time. Therefore, in maths we:  <ul style="list-style-type: none"> <li>Use Sparx Maths to ensure independent practice of recent learning takes place each week.</li> <li>Use the do it now tasks to recall key skills in every lesson.</li> <li>One lesson fortnightly is spent addressing the areas for development identified by Sparx Maths and practice these skills.</li> </ul> </p>
	Ongoing gap analysis and low stakes quizzes and interleaved learning tasks to support retrieval throughout the academic year for all year groups.							
KS4	Yr10	Unit 1 Number  Unit 2 Algebra  Unit 3 Graphs, tables and charts	Unit 3 Graphs, tables and charts (continued)  Unit 4 Fractions and percentages  Unit 5 Equations, inequalities and sequences	Unit 6 Angles  Unit 7 Averages and range  Unit 8 Perimeter, area and volume 1	Unit 9 Graphs  Unit 10 Transformations	Unit 11 Ratio and proportion  Unit 12 Right-angled triangles  Unit 13 Probability	Unit 14 Multiplicative reasoning  Unit 15 Constructions, loci and bearings	<p>Final GCSE Exams</p>
	Yr11	Unit 10 Transformations Unit 11 Ratio and proportion  Unit 14 Multiplicative reasoning  Unit 16 Quadratic equations and graphs  Unit 17 Perimeter, area and volume 2	Unit 17 Perimeter, area and volume 2 (Continue)  Unit 18 Fractions, indices and standard form  Unit 19 Congruence, similarity and vectors Unit 20 More algebra	Unit 20 More algebra (continue)  Revision ad practice papers with focus on geometry, measures and probability	Revision ad practice papers with focus on statistics and Ratio, proportion and rates of change	Revision ad practice papers with focus on number and algebra		