Year 11 Curriculum Overview

Rationale: The Year 11 curriculum completes the entirety of the National Curriculum for Mathematics. Students will complete the final unit, graphs in the Autumn term, and will have several summative assessments to prepare them for their final exams. Data gleaned from these assessments is used to individualise student progress. Students are exposed to a wide range of exam style questions and further refinements of their learning as the year progresses. Problem solving skills are maximised, and students are shown as much as possible the real life context of the questions they are working on to prepare them for their onward journey in lifelong learning.

Term/Length of Time	Outline	Assessment/Teacher Feedback Opportunities	Homework and Literacy resources
Autumn 8 lessons per fortnight for approximately 15 weeks. Approx 5-8 weeks	**Module 13 – Graphs** **Aspects of module 13 will not be fully finished by the end of year 10, so will be completed in the Autumn term. These topics include:** • Linear Graphs; gradient, y intercept, midpoints, plotting, equation of a line. • Quadratic Graphs • Using graphs to solve equations • Linear and Quadratic Inequalities • Parallel and Perpendicular Lines • Transformation of graphs. **This gives major scope for revision of key topics to be blended with Graphs, including:**	*FAR Homework will be marked by the teacher where feedback will be provided, an action will be given for students to improve and the teacher will check the response to feedback is completed.* **Module 13 Assessment** At the end of every module students sit an end of module assessment, covering all aspects taught and some prior learning from previous modules. All Year 11 students sit the Module 13 assessment in exam conditions in their classrooms. Assessments are out of 50 marks. Assessments are marked by the class teacher, fed back to students, who have the opportunity to improve their work. A personalised checklist is then completed by the student on the front of the test for	**Minimum homework expectation - to be set on Go for Schools** **Home learning is set weekly in Maths throughout Year 11** **Two/Three FAR (Feedback, Action, Response)** homework tasks to be set over the course of a module. **FAR homework** sheets all follow the same format as seen below: **KS4 FAR HOME LEARNING GREEN/YELLOW/ORANGE** **MODULE :** Linked to the module students are currently working on in lessons **Context:** Title linked to the skill(s) included **Due Date:** **Literacy:** Students will be expected to write in full sentences in the literacy section. This also may require some research. **Revisiting:** This section includes a range of questions from previously taught topics in the GCSE course, this could be from Year 9 or Year 10. **Assessment Objective 1 (AO1) Key Knowledge:** This section includes a range of 1 or 2 mark questions which we call A01. These questions often require minimal methods. **AO2/AO3 Problem Solving:** This section includes questions that are often 2-6 mark questions that require students to include their methods and processes to gain full marks. These questions are often problem solving, real life and application style questions. **Non - FAR homework** will be set each week (when a FAR is not set). Types of Non FAR home work may include: • Worksheets – for consolidation or flipped learning purposes. • Revision

	- Simultaneous equations - Factorising quadratics, finding roots and how this relates to graphs - Solving inequalities and how this relates to their graphs - Solving trigonometric equations and how this relates to their graphs, including use of the ambiguous case when solving with sine rule - Use of completing the square to find turning points of quadratics	them to use in their future revision.	- Research - Using websites/apps *These may be marked by the teacher, self-marked by the student or if using a website/app or peer marked in lessons with teacher guidance.* **Optional homework tasks and Literacy resources** **Module Instruction Sheets** will be uploaded by teachers that include videos, exam questions and answers linked to the module being taught in lessons. Module Instruction sheets are colour coded and represent the following: Foundation topics/concepts – Orange – Grade 1-4 Cross over topics/concepts – Yellow = Grades 4-5 Higher only content –Green – Grade 5+ All module instruction sheets for Maths GCSE can be found here on the school portal (student school user details required) **Module 13 Links to aid revision** **Higher: (Grade 6+)** Transformation of graphs **Higher and Foundation: (Grade 4/5)** Drawing quadratic graphs **Foundation: (Grades 1-3)** Drawing linear graphs **Oak National Academy lessons and resources** Straight Line graphs Quadratic Graphs **Recommended Reading** Murderous Maths – Numbers: The Key to the Universe by Kjartan Poskitt How to make and do in the fourth dimension – Matt Parker

Approx 3 weeks	**Key Revision for First Mock exam:** Teachers will use the end of year 10 exams to determine gaps in learning for individual students and revise these topics in detail.	**Mocks under exam conditions**	**Optional homework tasks and Literacy resources**
		Revising for Maths: There are many ways students can revise for Maths:	**Module Instruction Sheets** will be uploaded by teachers that include videos, exam questions and answers linked to the module being taught in lessons. Module Instruction sheets are colour coded and represent the following:
		• Use a revision website such as MathsGenie or CorbettMaths	Foundation topics/concepts – Orange – Grade 1-4 Cross over topics/concepts – Yellow = Grades 4-5 Higher only content –Green – Grade 5+ All module instruction sheets for Maths GCSE can be found here on the school portal (student school user details required)
	New Learning Intentions All students to receive a Personal Learning Checklist in October highlighting key strengths and gaps in learning. Teachers will have Learning Intentions for the classes they teach based on first set of mock exams. Students will revise and consolidate these areas to prepare for second set of mock exams in February.	• Create Flash Cards • Use a revision guide • Practice Exam Papers • Learn all maths formulae • Create mind maps/posters	Mock Exam revision requires students to look back on their work and practice exam style questions. Students will attempt these in class as well as practice papers. Excellent revision materials can be found here: Past Papers Graded Revision Materials with Videos and Worksheets, with solutions Individual Topic List – students should use their Personal Learning Checklists to identify topics in need of revision
		Completion of Past papers for revision **Return of all mock papers and individual analysis for all students**	
Spring 8 lessons a fortnight for approximately 12 weeks	**New Learning Intentions** New learning intentions highlighted from mock exams will continue until the February mock exams	**Completion of Past Papers for revision** **Second mock with full 3 papers under exam conditions**	**Optional homework tasks and Literacy resources** **Module Instruction Sheets** will be uploaded by teachers that include videos, exam questions and answers linked to the module being taught in lessons. Module Instruction sheets are colour coded and represent the following: Foundation topics/concepts – Orange – Grade 1-4 Cross over topics/concepts – Yellow = Grades 4-5

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Approx 2 weeks	**Second Mock exam** 3 papers.	**Return of all mock papers and individual analysis for all students**	Higher only content –Green – Grade 5+ All module instruction sheets for Maths GCSE can be found here on the school portal (student school user details required)
Approx 10 weeks	**Second set of New Learning Intentions** Using findings from both mocks, another new personal learning checklist given to all students. A new set of Learning Intentions based on the gaps in learning from both sets of mocks now to be taught. Starters to cover AO1 style questions, with AO2 / AO3 style questions regularly asked in lesson time.	**Completion of Past Papers for revision**	Mock Exam revision requires students to look back on their work and practice exam style questions. Students will attempt these in class as well as practice papers. Excellent revision materials can be found here: Past Papers Graded Revision Materials with Videos and Worksheets, with solutions Individual Topic List – students should use their Personal Learning Checklists to identify topics in need of revision
Summer 8 lessons a fortnight for approximately 4 weeks	**Final preparation for exams** Combination of key topics, final advice on timings of exams and gaining of marks and mastering of exam technique, coupled with confidence building and constant encouragement.	**More past papers and full access to all previous past papers with solutions.**	**Optional homework tasks and Literacy resources** **Module Instruction Sheets** will be uploaded by teachers that include videos, exam questions and answers linked to the module being taught in lessons. Module Instruction sheets are colour coded and represent the following: Foundation topics/concepts – Orange – Grade 1-4 Cross over topics/concepts – Yellow = Grades 4-5 Higher only content –Green – Grade 5+ All module instruction sheets for Maths GCSE can be found here on the school portal (student school user details required) Mock Exam revision requires students to look back on their work and practice exam style questions. Students will attempt these in class as well as practice papers. Excellent revision materials can be found here: Past Papers Graded Revision Materials with Videos and Worksheets, with solutions

			Individual Topic List – students should use their Personal Learning Checklists to identify topics in need of revision