Year 13 Mathematics

Learning	Loving	Living
Key Knowledge	**Well informed global citizens**	Wider learning
Link apply and adapt	Believe they can make a difference	Leadership, teamwork, collaboration
Build knowledge and skills	Shape community and school	Success for all abilities
Self-regulated, reflective independent	Care about the environment and each other	Value creative subjects
Know what they are good at and what to improve	Responsible for their own behaviour	Interactions with the world of work
Stretched, challenged supported	Grow spiritually	Safety, mental and physical health
Wider ideas culture and the world	**Respect and tolerance**	Equipped for their unique future
Use technology flexibly and responsibly	Charity, volunteering and fundraising	**Apply to the world beyond**

Curriculum Intent

Provide pupils with the knowledge and skills they need in order to take advantage of opportunities, responsibilities and experiences of later life

- Teach students key skills such as how to analyse and evaluate statements through statistical calculation and interpretation.
- Offer students curriculum related opportunities such as the support programme for A* students organised by Imperial College
- Develop their understanding of knowledge in lessons and assess these through regular exam-based practice.
- Empower students to think strategically when solving problems.
- Regular use of independent work to consolidate and extend their understanding on all parts of the specification.

Clearly state the end points that pupils are building towards and the knowledge and skills required to reach them

- Clear learning objectives in individual and sequential lessons.
- Students are aware of their TMG and have a clear understanding of their strengths and areas of improvement through the use of the assessments on a regular basis and feed forward on assessments.
- Clear outline of assessment requirements with use of student friendly markschemes from Edexcel.

Is planned and sequenced so that knew knowledge and skills build on what has been taught and builds towards clearly defined end points

- Students study Pure Mathematics topics for papers 1/2 alongside Statistics and Mechanics topics for paper 3 allowing students to gain an understanding of the different aspects of Pure and Applied Mathematics so that they can build a full understanding of the subject.
- Students study each topic in clear chunks with integrated assessments which allows them to show skill progression.
- Pupils work through retrieval homeworks that imbed knowledge

Has high ambition for all pupils

- Regular use of stretch and challenge within lessons and on homework tasks.
- Challenging assessment tasks are used within each unit with students also given the opportunity to test their understanding with extension tests via the Integral platform from MEI.

- Problem solving skills are explored and developed.

Spaced memory retrieval for each topic

- The hierarchy of questions detailed above combined with the formal assessments produces many time spaced memory retrieval opportunities.

(2 lessons used for test and review of test- 3 weeks after or later completion of content. These are not built into the timings of each chapter below and may need to be adjusted to reflect the need to complete the course so that pupils can take AS exams in May if they are available. It will need to be determined which assessments are used-the multiple choice tests on Integral, which may be used as a homework, or the full integral tests that are available after each section.)

**- Material started in Year 12

Term	Topic NB To include Spaced memory retrieval	No. of Lessons	Assessment
Autumn 1 (7 weeks) Taught by Teacher 1	Sequences and series (4 lessons) (Pure Chap 3) ** Moments (8 Lessons) **(Mechanics chap 4)** **Forces and Friction (4 Lessons) (Mechanics chap 5)**	16 lessons	Integral Assessment Pure Chapter 3 Integral Assessment Mechanics Chapter 4
Taught by Teacher 2	Functions and Graphs-(2 lessons) Pure 2 Chap2** **Radians (6 Lessons) (Pure chap 5)** **Trig Functions (7 Lessons) (Pure chap 6)** **Trigonometry and modelling (2 Lessons) (Pure chap 7)**	17 lessons	Integral Assessment Pure Chapter 2 Integral Assessment Pure Chapter 8
Autumn 2 (6 weeks) Taught by Teacher 1	**October Assessment** **Forces and Friction (4 Lessons) (Mechanics chap 5)** **Projectiles (7 Lessons) (Mechanics chap 6)** Conditional Probability (4 lessons) Stats Chapter 2	15 lessons	Integral Assessment Statistics Chapter 1

Taught by Teacher 2	**Trigonometry and modelling (7 Lessons) (Pure chap 7)** **Parametric Equations (7 lessons) (Pure chap 8)** **Differentiation (1 Lessons) Pure Chap 9**	15 lessons	Integral Assessment Mechanics Chapter 5 Integral Assessment Mechanics Chapter 6 Integral Assessment Pure Chapter 6/7 Integral Assessment Pure Chapter 8
Spring 1 (6 weeks) Taught by Teacher 1 **Taught by Teacher**	Conditional Probability (3 lessons) Stats Chapter 2 **Applications of forces (7 lessons) (Mechanics chap 7)** Normal Distribution (5 lessons)) Stats Chapter 3 **Differentiation (12 Lessons) Pure Chap 9** Vectors - Pure Chapter 12 (3 lessons)	15 lessons 15 lessons	Integral Assessment Statistics Chapter 2 Integral Assessment Mechanics Chapter 7 Integral Assessment Pure Chapter 9
Spring 2 (6 weeks) Taught by Teacher 1 **Taught by Teacher 2**	**Normal Distribution** (5 lessons) Stats Chapter 3 **Further Kinematics (7 Lessons) (Mechanics chap 8)** Revision (3 lessons) Vectors - Pure Chapter 12 (3 lessons) Numerical methods- (7 lessons) Pure chapter 10 Integration (5 lessons) Pure Chapter 11	15 lessons 15 lessons	Integral Assessment Statistics Chapter 3 Integral Assessment Mechanics Chapter 8 Integral Assessment Pure Chapter 12 Integral Assessment Pure Chapter 10

Summer 1 (6 weeks) **Taught by Teacher 1** Taught by Teacher 2	**Revision for external exams** Integration (5 lessons) Pure Chapter 11 **Revision for external exams**		Integral Assessment Pure Chapter 11
Summer 2 (7 weeks)			

Review			
Date	Comment	Staff Code	Actions?
10/7/21	Programme of study completed & checked.	KEL	To be reviewed un Summer 2022.