Bishop Heber High School

Subject	Year	Term
Maths	12	3

Topic

Integration, Kinematics in 2D, Vectors

Content (Intent)

Prior Learning (Topic) Binomial Expansion, Trigonometry, Dynamics, Logarithms & Exponential Functions, Differentiation, Moments

- Integration of simple functions
- Applying calculus to solve more complex kinematics problems
- Application of vectors

Future Learning (Topic) Algebra & Functions, Trigonometry, Parametric Equations, Sequences, Binomial Expansion, Sampling & Interpreting, Probability Distributions

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
• How to integrate certain functions. What integration really means, and how to use it in problem solving. • Extending knowledge of kinematics with constant acceleration in 1D to 2 dimensional models, including projectiles questions.	Formal Homework (Pure Maths & Mechanics) Ongoing self-assessment
• Solving vectors questions in a pure maths context and using correct notation. • Solving variable acceleration problems both in 1D and 2D space. • Exam preparation and revision.	Formal Homework (Pure Maths & Mechanics) **End of Year 12 Exams (Pure Maths and Mechanics)** Ongoing self-assessment

How can parents help at home?

Check assessment record in formal assessed homework books.
Encourage use of MyMaths (www.mymaths.co.uk)

Helpful further reading/discussion (including Reading and Vocabulary Lists)

Class textbook chapter 9, chapter 29
Chapter 10, chapter 29 & 15 (section 3)
Additional textbooks:
ISBN 978-1-292-18339-8 (Pure) chapters 11, 13
ISBN 978-1-292-23253-9 (Mechanics) chapters 10 & 11
ISBN 978-1-4469-4407-3 (Mechanics) chapters 6 & 8
Website:
https://qualifications.pearson.com/en/qualifications/edexcel-a-levels/mathematics-2017.html

Vocabulary Lists

Projectile
Indefinite
Integral