Bishop Heber High School

Subject	Year	Term
Maths	**13**	**2**

Topic

Further Calculus, Numerical Methods, Vectors, Probability, Hypothesis Testing, Normal Distribution

Content (Intent)

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

- Differentiation & Integration
- Hypothesis testing
- Correlation & Regression
- Numerical Methods to find roots
- Vectors
- Probability
- The Normal Distribution

Future Learning (Topic) Exam Preparation

What Knowledge and Skills will be taught (Implementation)	How will your understanding be assessed & recorded (Impact)
• Differentiation of trigonometric functions, exponentials and logarithms, (and their products or quotients), implicit and parametric equations. • Solve rates of change problems • Integrate exponentials, trigonometric & parametric functions, using substitution and integration by parts. • Carry out hypothesis testing involving the binomial distribution, understanding significance levels • Understand & interpret correlation coefficients •	Formal Homework (Pure Maths & Statistics) Ongoing self-assessment
• Locate roots using change of sign, iteration and the Newton-Raphson method • Use of vectors in three dimensions • Use set notation for probability, interpret probability diagrams & use conditional probability. • Understand & use the Normal Distribution, including statistical hypothesis testing for the mean of a normal distribution.	Formal Homework (Pure Maths & Statistics) Ongoing self-assessment

How can parents help at home?

Check assessment record in formal assessed homework books.
Encourage use of MyMaths

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

Class textbook chapters 22-25, 14, 26-28
Additional textbooks:
ISBN 978-1-292-18340-4 (Pure)
ISBN 978-1-292-23253-9 (Statistics & Mechanics Year 1/AS)
ISBN 978-1-446-94407-3 (Statistics & Mechanics Year 2/AS)
Website: https://qualifications.pearson.com

Vocabulary Lists

Hypothesis	Implicit
Parametric	Cartesian
	Distribution