HIGHER OUTLINE OF COURSE

| | | | | | |
|---|---|---|---|---|---|
| EXPRESSIONS & FUNCTIONS | Periods | RELATIONSHIPS & CALCULUS | | APPLICATIONS | |
| **1.1 Logs and Exponentials**<br>Simple Log & Exp equations<br>Laws of logs and exp<br>Applications | 8 | **1.1 Solving Algebraic Equations**<br>Factorising polynomials<br>Remainder Theorem<br>Applications<br>**(October test)** | 4<br>Oct<br>Hol<br>6 | **( Relationships and Calculus)**<br>**RC 1.4 Integration**<br>Integrating polynomials<br>Integrating $(px + q)^n$<br>Integrate psin(qx + r)<br>Differential equations<br>Definite Integrals for polynomials & trig functions<br><br>**REVISION & PRELIMS** | 9 |
| **1.2 Trig Expressions**<br>Exact values, Radians<br>Addition & Double Angle Form<br><br>Wave Function | 6<br>Summer Holidays<br>4 | **1.2 Solving Trig Equations**<br>Equations - degrees and radians<br>Compound angle equations<br>Equations involving identities<br>Equations involving wave function | 9 | | |
| **1.3 Related Functions**<br>Graphs of related functions<br>Composite Functions<br>Inverse Functions | 11 | **1.3 Differentiation**<br>Gradient function<br>Differentiation of polynomials<br>Differentiation of trig functions<br>Chain Rule<br>Equation of tangents<br>Stationary points<br>Curve sketching<br>** **Graphs of f ' (x) E&F 1.3** | 16 | **APP 1.4 Application of Calculus**<br>Applying Calculus to calculate:-<br>➢ Optimisation<br>➢ Area between line/ curve<br>➢ Area between 2 curves | 6 |
| **1.4 Vectors**<br>Unit vectors I, j, k<br>Position vectors<br>Internal division of line<br>Collinearity<br>Scalar Product & properties<br>Perpendicular vectors | 12 | **(Applications)**<br>**1.1 Equations of lines**<br>Parallel and Perpendicular lines<br>Collinearity<br>Gradients and Angles<br>Median, Altitude, Perpendicular Bisector and Angle bisector | 6 | **1.2 Circles**<br>Circle equation $(x-a)^2+(y-b)^2=r^2$<br>General equation of circle<br>Tangency<br>Intersecting circles<br><br>**1.3 Sequences**<br>Nth term formulae<br>Recurrence Relations<br>Limits of a sequence | 6<br><br>4 |