**NEW A LEVEL PLANNER – YEAR 1**

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| **W** | **Date** |  | **Topic** | **Assignment** |
| 0 | 11/9 | P | 101 Graph Transformations | 1,9 |
| 1 | 18/9 | P | 102 Co-ordinate Geometry – line including modelling with lines | 1 |
| 2 | 25/09 | PP | 103 Quadratic: Discriminant/inequalities (linear and quadratic, including graphs)104 Completing the square a≠1.  | 2,103 |
| 3 | 2/10 | SSSSS | 105 Mean & Standard Deviation with grouped data (inc using calculator), 106 Coding107 Combining data sets108 Median and Percentiles109 Interpolation | 1,31,31,32,42,4 |
| 4 | 9/10 | MM | 110 Velocity/Time graphs111 SUVAT | 1,2,4,11,161,2,3,5,12,18 |
| 5 | 16/10 | PPPP | 112 Differentiation: gradient function113 Equations of tangents and normal114 Differentiation from 1st Principles115 Increasing/decreasing functions | 456,15,173,11 |
| 6 | 30/10 | PP | 116 2nd derivative and classification of turning points, including sketching gradient functions.117 Optimisation Problems. | 4,127,12,13 |
| 7 | 6/11 | PP | 118 Exponential function and log rules.119 Modelling logarithmic relationships READ | 5,13,1710,14 |
| 9 | 20/11 | M | 120 Forces and Newton’s laws: single particles including Friction and slopes | 2,3,6,10,12,13,17 |
| 10 | 27/11 | PSSSSS | 121 Proof.(Exhaustion, counter-example, deduction) 122 Discrete Random Variables including Discrete Uniform123 Probability: Venn diagrams124 Tree diagrams125 Probability: Two way tables126 Conditional, mutually exclusive & independent events | 11,195,96,107,128,148,15 |
| 11 | 4/12 | PPS | 127 Trig Equations 128 Reciprocal Trig functions (and graphs)129 Using large data set  | 7,3,186,14,181-20 |
| 12 | 11/12 | P | 130 Indefinite Integration | 1,8 |
| 13 | 1/1 | PP | 131 Pythagorean Trig Identities: proof and use in solving equations132 Algebraic Division, Factorising cubics, Factor theorem  | 5,111,9 |
| 14 | 8/1 | PP | 133 Definite Integration & Areas under curves. Integration as limit of a sum – I can’t see any questions on this | 8,101,9 |
| 15 | 15/1 | PP | 135 2D/3D Vectors136 Binomial distribution | 4,8,126,11,19 |
| 16 | 22/1 | M | 137 Projectiles & equations of flight paths (including 2D 3D Projectile vectors) | 4,5,11,14,15,20 |
| 17 | 29/1 | MP | 138 Vectors (ships collisions etc)139 Radian measure | 1,5,6,10,12,13,1811 |
| 18 | 5/2 | PPP | 140 Arc length, area of sector, area of triangle, area of segment141 Cosine rule and sine rule 142 Pythagorean Trig Identities: proof and use in solving equations | 9,12,1313,161,10,17 |
| 19 | 19/2 | P | 143 Functions; Composites, domain, range, inverses | 7,15,19 |
| 20 | 26/2 | MM | 144 Newton’s Laws. 145 Vectors problems constant acceleration, connected particles and derivatives | 3,4,8,9,11,177,9,9,10,14,15,19,20 |
| 21 | 5/3 | S | 146 Hypothesis testing: Binomial | 7,16 |
| 22 | 12/3 | PPP | 147 $e^{x}$ and ln x graphs and derivatives148 Differentiation of trig functions, proof of sin x and cos x from first principles, 149 Chain, product, quotient rules.  | 8,16,202,8,142,7,10,15 |
| 23 | 19/3 | PP | 150 dx/dy problems151 Arcsinx, arccosx, arctanx derivatives. | 2,6,161,2,8 |
| 24 | 26/3 | P | 152 Integration: reverse chain rule inc ex and lnx | 2,3,9 |
| 32 | 11/6 | P | 153 Trig: compound angle, double angle proofs | 1,3,14 |
| 33 | 18/6 | P | 154 Partial Fractions & integration using partial fractions & Reverse chain practice | 2,3,4,13 |
| 34 | 25/6 | PP | 155 Integration of Trig Identities 156 Small angle approximations & integrating using small angle | 2,5,132,4,6 |
| 35 | 2/7 | P | 157 Infinite Binomial & more small angle approx. uses | 5,7,11 |
| 36 | 9/7 | PP | 158 Trapezium Rule159 Newton Raphson | 6,8,13 |

**2nd Year Planner**

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| **W** | **Week beginning** |  | **Topic** | **Assignment** |
| 0 | September 13th (1 lesson) | SPP | 201 Histogram introduction202 Compound and Double angle revision203 Implicit Differentiation | 2,41,3,4,5,14,16,202,4,5,6,15,19 |
| 1 | September 17th  | P | 204 Inverse Trig | 3,5,6,7,14,16 |
| 2 | September 24th | PP | 205 Numerical Methods (sigma notation, recurrence relation, change of sign, cobweb & staircase diagrams). 206 Numerical methods in context | 4,6,7,8,134,5,10,15,16 |
| 3 | October 1st | S | 207 Normal Distribution | 5,7,9,11,12,14 |
| 4 | October 8th | SM | 208 Continuity correction for Binomial Approximation209 Moments introduction | 6,8,10,12,136,7,8 |
| 5 | October 15th | PM | 210 Finite Binomial211 Moments | 7,9,10,11,12,167,8,9,16,17,18,19 |
| 6 | October 29th | P | 212 R method | 8,10,11,12,15,18 |
| 7 | November 5th | PPS | 213 Integration by Substitution 214 Integration by parts215 Hypothesis Testing of mean | 9,11,12,13,14,159,10,12,15,17,199,11 |
| 9 | November 19th | S | 216 Sampling | 11,13,14,15 |
| 10 | November 26th  | P | 217 Forming and solving differential Equations | 12,14,15,16,18,20 |
| 11 | December 3rd | M | 218 Kinematics. Variable Acceleration. | 13,14,15,16,19,20 |
| 12 | December 10th | P | 219 Parametrics (including differentiation, integration and graphs) | 14,16,17,18,19 |
| 13 | Dec 17th Jan 3rd (2 lessons) | SS | 220 Histograms including dimension problems, 221 Frequency polygons | 15,16,17,1816,17,18,19 |
| 14 | January 7th | S | 222 Product Moment Correlation Coefficient  | 17,18,19,20 |
| 15 | January 14th  | PP | 223 Arithmetic Series224 Recurrence Relation & periodic behaviour  | 17,18,19,2017,18,18,19 |
| 16 | January 21st | P | 225 Modulus & link with graphical inequalities | 17,18,19,20 |
| 17 | January 28th  | S | 226 Hypothesis testing with Product Moment Correlation Coefficient | 19,20,20 |
| 18 | February 4th  | PP | 227 Graphical Inequalities228 Geometric Series (proof sum to infinity & sum) | 20,2020,20 |