Carmel College Curriculum Implementation – Long term plan Subject **Level 3 Mathematical Studies**

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|  | **Paper 1 (2 lessons)** | **Paper 2A (Statistics)** |
| Autumn half term 1Sequential knowledge and skills | Finance: Recap on percentages work from GCSECalculating Tax and National Insurance contributions and understand that they can change each year.Know the difference between AER and APR and calculate AER/APR | Regression: Calculating PMCCFinding and plotting the equation of a regression lineKnow that regression lines always go through ($\overbar{x}, \overbar{y})$ |
| Assessment Content and methods used to judge learning | Assessment on Percentages, Tax, NI, AER, APR | Regression assessment  |
| Autumn half term 2Sequential knowledge and skills | Finance: Understanding mortgages and calculate APR Understand the 2 repayment systems for Student Loans – calculate student loan deductions, Understand the basic principles of inflation, BudgetingFermi Estimation | Critical Analysis of DataNormal Distribution: Understand the principles of the normal distribution and know the empirical values (68%, 95%, 99.7%)Finding probabilities using the normal distributionWorking backwards to find missing values  |
| Assessment Content and methods used to judge learning | Percentages and Finance Assessment | Normal Distribution assessment |
| Spring half term 3Sequential knowledge and skills | Data Analysis: representing and interpreting dataDraw and interpret stem and leaf diagrams (including back to back), box plots, cumulative frequency diagrams and histograms.Calculate mean, median, mode and range and interpret/compare resultsCalculate standard deviation | Normal Distribution: Finding confidence intervals and interpreting results |
| Assessment Content and methods used to judge learning | Data Analysis assessment | Mock Exam |
| Spring half term 4 Sequential knowledge and skills | Exploring preliminary materialsRevision | Exploring preliminary materialsRevision |
| Assessment Content and methods used to judge learning | Past Papers as open book tests and in test conditions | Past Papers as open book tests and in test conditions |
| Summer half term 5 Sequential knowledge and skills | Revision  | Revision  |
| Assessment Content and methods used to judge learning | AS External Exam | AS External Exam |