## Maths Year 11

## TERM 1

| 11.1 Rates of Change | Estimating the Gradient at a point on non-linear graphs |
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|  | Finding the area under linear and non-linear graphs |
|  | Solving problems involving gradients at a point and area <br> under graphs |
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|  |  |
|  |  |
| Repeated proportional change |  |
| Compound interest |  |
| Growth and decay |  |
|  | Quadratic Sequences \& nth term rule of the form an^2 |
| Geometric progressions |  |
| Further geometric progressions |  |
| Other sequences |  |
| Solving problems involving other sequences |  |
| Finding the nth term of quadratic sequences of the from <br> an^2 |  |
| Finding the nth term of Quadratic Sequences of the form <br> an^2+bn |  |
| Finding the nth term of quadratic sequences of the from <br> an^2+bn+c |  |

## TERM 2

|  | Cumulative Frequency diagrams |
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| 11.3 Grouped Frequency Data <br> Representation | Constructing Histograms with Equal Class Intervals |
|  | Interpreting Histograms with Equal Class Intervals |
|  | Constructing Histograms with Unequal Class Intervals |
|  | Interpreting Histograms with Unequal Class Intervals |


|  | Solving Problems involving Grouped Data |
| :--- | :--- |
|  | Examining \& Grouping Data |
|  | Measures of Central Tendency in Grouped Data |
|  | Measure of Spread |
|  | Displaying \& Interpreting Data: Box Plots and Cumulative <br> Frequency Diagrams |
|  | Displaying \& Interpreting Data: Frequency Trees and <br> Histograms |
|  | Interpreting and Comparing Distributions |
|  | Understanding Scatter Graphs |
| Drawing Scatter Graphs |  |
|  | Correlation |
| 11.4 Trends | Lines of Best Fit |
| Sampling |  |
| Time Series Data |  |
| Describing Populations |  |

## TERM 3

| 11.5 Combining Transformations | Enlargement |
| :---: | :---: |
|  | Fractional Scale Factors |
|  | Negative Scale Factors |
|  | Describing an Enlargement |
|  | Transformations |
|  | Combining Transformations |
|  | Describing Transformations |
|  | Translating Shapes Using Vectors |
|  | Describing Translations using Vectors |
| 11.6 Vectors | Representing Vectors |
|  | Addition and Subtraction of Vectors |
|  | Multiplication of Vectors by a Scale Factor |


|  | Combining Vectors |
| :--- | :--- |
|  | Vectors in Geometry |
|  | Geometrical Proof Using Vectors |
|  | Plans and Elevations of 3D Shapes |
|  | Coordinates in 3D |

## TERM 4

| 11.8 Inequalities | Inequalities on a Number Line |
| :--- | :--- |
|  | Solving Linear Inequalities |
|  | Representing Inequalities Graphically |
|  | Solving Inequalities in Two Variables |
|  | Solving Quadratic Inequalities |
| 11.9 Polving Problems Involving Inequalities |  |
|  | Equations and Identities |
|  | Mathematical Arguments |
|  | Geometric Proofs |
|  |  |
|  | Converting Recurring Decimals to Fractions |
| Converting Fractions to Recurring Decimals |  |
|  | Arc Length |
| Sector Area |  |
| Solving Problems involving Arc Length and Sector Area |  |
|  | Volume |
| Surface Area |  |
|  | Frustums |

