Mathematics: Foundation

**Lent 1:**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Week 1: | |  | | --- | | Arc lengths and sectors | | Derive triangle results | | Enlargements and negative SF | | Loci | | Pythagoras | |
| Week 2: | |  | | --- | | Similarity and Congruence | | Standard constructions | | Surface Area | | Trigonometric ratios | | Volume | | Alternate and corresponding angles | |
| Week 3: | |  | | --- | | Histograms with equal class widths | | Scatter graphs | | Comparing data using graphs | | Comparing Distributions | | Correlation | |
| Week 4: | |  | | --- | | Population | | Sampling | | Scatter Diagrams | | Time series | | Charts and Diagrams | | Pie Charts | |
| Week 5: | |  | | --- | | Circle terminology | | Circumference of a circle | | Congruent triangles | | Enlargements and fractional SF | | Perimeter of 2D shapes | |
| Week 6: | Past Paper Practice |

**Lent 2:**

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| --- | --- | --- | --- | --- | --- | --- |
| Week 1: | |  | | --- | | Algebraic terminology | | Cubic and Reciprocal graphs | | Deduce quadratic roots algebraically | | Derive an equation | | Equation of a line | |
| Week 2: | |  | | --- | | Expand the product of two binomials | | Factorising quadratic expressions | | Fibonacci, quadratic and simple geometric sequences | | Graphical solution to equations | | Inequalities on number lines | |
| Week 3: | |  | | --- | | Linear equations | | Quadratic graphs | | Reciprocal real-life graphs | | Simplify indices | | Simplify surds | |
| Week 4: | |  | | --- | | Solve linear inequalities in one variable | | Writing formulae and expressions | | Changing the subject | | Collecting like terms | | Expressions | | Factorise single bracket | |
| Week 5: | |  | | --- | | Graphs of linear functions | | Graphs of quadratic functions | | Linear equations one unknown | | Multiplying single brackets | | Non-standard real life graphs | |

**Pentecost 1:**

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| --- | --- | --- | --- | --- | --- | --- |
| Week 1: | |  | | --- | | Probability of dependent events | | Probability of independent events | | Mutually exclusive sum | | Relative Frequency | | Tables and Grids | |
| Week 2: | |  | | --- | | Theoretical Probability | | Unbiased Samples | | Venn Diagrams | | Frequency Trees | | Probability of equally likely outcomes | |
| Week 3: | |  | | --- | | Calculating with fractions | | Error intervals | | Index Laws | | Limits of accuracy | | Adding and subtracting fractions | | Checking calculations | |
| Week 4: | |  | | --- | | Compound measures | | Converting metric units | | Estimation | | Fractions and percentages | | Fractions and ratio problems | |
| Week 5: | |  | | --- | | Compound Units | | Gradient & the rate of change | | Growth and decay | | Interpret Proportion | | Percentage change | |
| Week 6: | Exam Paper Practice |

Mathematics: Higher

**Lent 1:**

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| Week 1: | |  | | --- | | Direct and inverse proportion | | Compound Units | | Gradient & the rate of change | | Growth and decay | | Interpret Proportion | |
| Week 2: | |  | | --- | | Index Laws (negative and fractional) | | Product rule | | Recurring Decimals | | Upper and lower bounds | | Finance 1 | | Powers and Roots | |
| Week 3: | |  | | --- | | Relative Frequency | | Tables and Grids | | Theoretical Probability | | Unbiased Samples | | Venn Diagrams | |
| Week 4: | |  | | --- | | Powers and Roots | | Product of prime factors | | Using Pi | | Calculating with fractions | | Error intervals | |
| Week 5: | |  | | --- | | Percentage change | | Problems involving ratio | | Proportion and ratio | | Ratio and fractions | | Ratio Sharing | |
| Week 6: | Exam Paper Practice |

**Lent 2:**

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| --- | --- | --- | --- | --- | --- | --- |
| Week 1: | |  | | --- | | Composite functions | | Expand the product of two or more binomials | | Factorising difficult quadratic expressions | | Geometric Sequences | | Graphs of exponential functions | |
| Week 2: | |  | | --- | | Quadratic equations (needing re-arrangement) | | Quadratic equations (quadratic formula) | | Real-life exponential graphs | | Represent quadratic inequalities | | Simultaneous equations (nonlinear) | |
| Week 3: | |  | | --- | | Quadratic equations (graphical methods) | | Represent linear inequalities | | Simultaneous equations (linear) | | Algebraic argument | | Algebraic terminology | |
| Week 4: | |  | | --- | | Cubic and Reciprocal graphs | | Deduce quadratic roots algebraically | | Derive an equation | | Equation of a line | | Expand the product of two binomials | |
| Week 5: | |  | | --- | | Fibonacci, quadratic and simple geometric sequences | | Graphical solution to equations | | Inequalities on number lines | | Linear equations | | Quadratic graphs | |

**Pentecost 1:**

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| --- | --- | --- | --- | --- | --- | --- |
| Week 1: | |  | | --- | | Arc lengths and sectors | | Derive triangle results | | Enlargements and negative SF | | Loci | | Pythagoras | |
| Week 2: | |  | | --- | | Similarity and Congruence | | Standard constructions | | Surface Area | | Trigonometric ratios | | Volume | |
| Week 3: | |  | | --- | | Boxplots | | Cumulative frequency | | Histograms with unequal class widths | | Quartiles and Interquartile Range | | Histograms with equal class widths | |
| Week 4: | |  | | --- | | Scatter graphs | | Comparing data using graphs | | Comparing Distributions | | Correlation | | Population | |
| Week 5: | |  | | --- | | Perimeter of 2D shapes | | Plans and elevations | | Polygons | | Solve geometrical problems | | Vector arithmetic | |
| Week 6: | Exam Paper Practice |