## Year 7 Mathematics Curriculum

KS3 Mathematics- TWT Current

|  | Cycle One | Cycle Two | Cycle Three |
| :---: | :---: | :---: | :---: |
| Core Content |  |  |  |
| Independent Learning | SPARX Homework (Compulsory, XP Boost \& Deepen) Revision | SPARX Homework (Compulsory, XP Boost \& Deepen) Revision | SPARX Homework (Compulsory, XP Boost \& Deepen) Revision |
| Assessment | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Extension) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Extension) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) <br> Written End of Cycle Assessment (Core and Extension) |

## Year 8 Mathematics Curriculum

## KS3 Mathematics - TWT Legacy

|  | Cycle One | Cycle Two | Cycle Three |
| :---: | :---: | :---: | :---: |
| Core Content | Number (3 weeks) | Number (3 weeks) | Number (2 weeks) |
|  | - Operations with negative numbers | - Factors, multiples, HCF and LCM | - Multiplying/dividing with fractions \& mixed |
|  | - Order of operations | Prime factor trees and decomposition | numbers |
|  | - Introducing standard form | Adding/subtracting with fractions \& mixed numbers | - Fractions and percentages of amounts |
|  | - Rounding and estimating | - Fraction, decimal and percentage conversions | - Percentage change |
|  | Ratio, Proportion \& Rates of Change (1 week) | - Percentages of amounts | Ratio, Proportion \& Rates of Change (1 week) |
|  | - Metric unit conversions of length, mass and volume | - Percentage change | - Writing and simplifying ratios |
|  | - Metric unit conversions of area and volume | Data Handling (2 weeks) | - Writing ratios as FDP |
|  | Geometry (1 week) | - Expected outcomes | - Using ratios and unitary form |
|  | - Area of simple 2D shapes and compound shapes | Sample Space Diagrams | Geometry (2 weeks) |
|  | - Surface area of 3D shapes | Tree Diagrams | - Circle terminology |
|  | Volume of 3D shapes | Venn Diagrams and set notation | - $\quad$ Circumference and area of circles and sectors |
|  | - Simplifying expressions | - Simplifying expressions | - Pythagoras in 2D and 3D |
|  | - Substitution | - Solving equations | Ratio, Proportion \& Rates of Change (1 week) |
|  | - Simplifying algebraic fractions | - Inequalities | - Time differences |
|  | - Solving equations | Simultaneous Equations | - Using timetables and calendars |
|  | - Sequences | Plotting coordinates and finding midpoints | Algebra (1 week) |
|  | Data Handling (2 weeks) | - Equations of straight lines | - Real life straight line graphs |
|  | - Designing Questionnaires | Geometry (2 weeks) | Geometry (2 weeks) |
|  | - Drawing Bar Charts and Line Graphs | - Simple angle facts | - Speed Distance Time graphs |
|  | - Drawing Pie Charts | Angles on parallel lines | - Transformations |
|  | - Scatter Graphs | - Properties of triangles and quadrilaterals | - Congruence and similarity |
|  | - Stem and Leaf Diagrams | Angles in polygons | Ratio, Proportion \& Rates of Change (1 week) |
|  | - Calculating averages from frequency tables | - Constructing triangles and bisectors | - $\quad$ Scale diagrams and bearings |
|  | Independent Learning: | Independent Learning: |  |
|  | SPARX Homework | SPARX Homework | Independent Learning: |
|  | Revision | Revision | SPARX Homework Revision |
| Assessment | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Extension) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Extension) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Extension) |

Year 9 Mathematics Curriculum
KS3 Mathematics (Foundation)- TWT Legacy

|  | Cycle One | Cycle Two | Cycle Three |
| :---: | :---: | :---: | :---: |
| Core Content |  |  |  |
| Assessment | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation) |

Year 9 Mathematics Curriculum
KS3 Mathematics (Higher)- TWT Legacy

|  | Cycle One | Cycle Two | Cycle Three |
| :---: | :---: | :---: | :---: |
| Core Content |  | Fractions (2 weeks)  <br> - Factors \& Multiple, HCF \& LCM <br> - Prime factor decomposition <br> - Converting between Improper fractions \& Mixed numbers <br> - <br> Operations with Fractions \& Mixed numbers <br> Decimals and Percentages (2 weeks)  <br> - Using FDP and converting between FDP <br> - Recurring decimals to fractions <br> - Percentages of amounts with/without a calculator <br> - Percentage change with/without a calculator and multipliers <br> - Compound interest and decay <br> - Reverse percentages (original values) <br> Theoretical and Experimental Probability (2 weeks)  <br> - Calculating probabilities of mutually exclusive events <br> - Theoretical vs. Experimental probability <br> - Sample space diagrams <br> - Frequency trees <br> - Using tree diagrams to find probabilities <br> - Solving problems using venn diagrams <br> - Using venn diagrams and set notation <br> Sequences (2 weeks)  <br> Arithmetic, Quadratic \& Special sequences  <br> - Using recurrence relations for sequences <br> Straight Line Graphs (2 weeks)  |  |
| Assessment | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation) |

Year 10 Mathematics Curriculum
GCSE Foundation Mathematics (Edexcel)- TWT Legacy

|  | Cycle One | Cycle Two | Cycle Three |
| :---: | :---: | :---: | :---: |
| Core Content | Number and Algebra Basics (2 weeks) | Measures and real life graphs (3 weeks) | Circles, cylinders, cones and spheres (3 weeks) |
|  | Index laws | - Calculations involving time | - Circle terminology |
|  | Standard form | Understanding timetables and calendars | Circumference and area of circles |
|  | - Factors and Multiples | Converting metric units (including area and volume) | Arc lengths and area of sectors |
|  | - Prime factor decomposition | - Calculating rates of change (speed, money etc) | - Properties and nets of 3D shapes |
|  |  | - Real life graphs | - Volume of cubes, cuboids, prisms |
|  | Equations, Inequalities and Formula (3 weeks) | Speed/Distance/Time graphs | Volume of cylinders and pyramids |
|  | - Constructing and solving equations |  | Volume of cones and spheres |
|  | - Simplifying algebraic expressions | Vectors, transformations and congruence (3 weeks) | - Surface area of cubes, cuboids, prisms and pyramids |
|  | - Reading, drawing and solving inequalities | - Understanding column vectors | Surface area of cylinders, cones and spheres |
|  | - Substitution into expressions and formulae | Operations with column vectors |  |
|  | - Rearranging formulae | Problem solving with vectors | Averages and Statistical diagrams (3 weeks) |
|  |  | - Translation, Rotation, Reflection and Enlargement | - Understanding frequency tables |
|  | Ratio, Proportion and Scale ( 3 weeks) | Combinations of Transformations | Averages from frequency tables |
|  | - Writing and simplifying ratios |  | Stem and leaf diagrams |
|  | - Finding missing amounts in ratios | Quadratic and Simultaneous equations (4 weeks) | - Line graphs |
|  | - Writing ratios as fractions, decimals and percentages | - Simplifying expressions (inc. algebraic fractions) | - Scatter Graphs and lines of best fit |
|  | - Sharing amounts into ratios | Expanding and factorising single brackets | Averages from diagrams |
|  | - Drawing and interpreting scale diagrams | Expanding and factorising quadratics | Frequency polygons |
|  |  | - Graphs of quadratic functions | - Presenting and making conclusions |
|  | Venn and Tree Diagrams (2 weeks) | - Solving simultaneous equations by elimination |  |
|  | - Listing outcomes | Solving simultaneous equations by substitution | Construction and Loci (2 weeks) |
|  | - Sample space diagrams | Solving simultaneous equations graphically | - Constructing triangles and bisectors |
|  | Venn diagrams and set notation |  | Constructing loci |
|  | - Frequency trees <br> - Tree diagrams (independent and dependent) |  | - Solving loci problems |
|  |  |  | Right angled triangles (2 weeks) |
|  |  |  | Pythagoras' Theorem (missing sides and proving) Trigonometric ratios for missing sides and angles Exact values of trigonometric ratios |
|  | Independent Learning: | Independent Learning: |  |
|  | SPARX Homework | SPARX Homework | Independent Learning: |
|  | Revision | Revision | SPARX Homework Revision |
| Assessment | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation and Higher) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation and Higher) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Core and Higher) Past GCSE paper (Foundation and Higher) |

Year 10 Mathematics Curriculum
GCSE Higher Mathematics (Edexcel)- TWT Legacy

|  | Cycle One | Cycle Two | sle Three |
| :---: | :---: | :---: | :---: |
| Core Content |  | Ratio, Proportion and Rates of Change (3 weeks)  <br> - Metric unit conversions (incl. Area and volume) <br> - Calculating rates of change (speed, money etc) <br> - Calculations of density, pressure and speed <br> - Real life graphs (and equations of) <br> Distance-time graphs and velocity-time graphs.  <br> Geometry (3 weeks)  |  |
| Assessment | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Foundation and Higher) Past GCSE paper (Foundation and Higher) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Foundation and Higher) Past GCSE paper (Foundation and Higher) | Pre-Assessment (Quizizz) and Post-Assessment (Quizizz) Written End of Cycle Assessment (Foundation and Higher) Past GCSE paper (Foundation and Higher) |

Year 11 Mathematics Curriculum
GCSE Foundation Mathematics (Edexcel) - TWT Legacy

|  | Cycle One | Cycle Two | Cycle Three |
| :---: | :---: | :---: | :---: |
| Core Content |  | Revision (6 weeks) <br> Teacher-led bespoke Scheme of Learning designed to target either Grade 3, 5 or 7 at GCSE. <br> Exam preparations (4 weeks) <br> Pupil-led bespoke Scheme of Learning including revision lessons, Past paper practise and Mock Exams. | Exam preparations (5 weeks) <br> Pupil-led bespoke Scheme of Learning including revision lessons, Past paper practise and Mock Exams. <br> Final GCSE Exams |
| Assessment | Pre-Assessment (Past GCSE Paper, Foundation and Higher) Full PPEs, three Past GCSE Papers from the same year | Weekly past papers in class as preparation for final GCSE exams Full PPEs, three Past GCSE Papers from the same year | Final exams - three 90 minute papers set by Edexcel |

## Year 11 Mathematics Curriculum

GCSE Higher Mathematics (Edexcel)- TWT Legacy

|  | Cycle One | Cycle Two | Cycle Three |
| :---: | :---: | :---: | :---: |
| Core Content |  | Revision ( 6 weeks) <br> Teacher-led bespoke Scheme of Learning designed to target <br> either Grade 5, 7 or 9 at GCSE. <br> Exam preparations (4 weeks) <br> Pupil-led bespoke Scheme of Learning including revision lessons, Past paper practise and Mock Exams. | Exam preparations (5 weeks) <br> Pupil-led bespoke Scheme of Learning including revision lessons, Past paper practise and Mock Exams. <br> Final GCSE Exams |
| Assessment | Pre-Assessment (Past GCSE Paper, Foundation and Higher) Full PPEs, three Past GCSE Papers from the same year | Weekly past papers in class as preparation for final GCSE exams Full PPEs, three Past GCSE Papers from the same year | Final exams - three 90 minute papers set by Edexcel |

