

OCL BRISLINGTON - MATHS MASTERY 5 YEAR PLAN 2019/20

| YEAR 7 (LEGACY MATHS MASTERY) | | | | | |
|---|---|---|---|---|--|
| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| <p>Topic: Number - Place value</p> <p>Knowledge and skills covered:</p> <ul style="list-style-type: none"> Place value (including decimals) Add and subtract (including decimals) Rounding Perimeter Mental strategies | <p>Topic: Number – Multiplication and division</p> <p>Knowledge and skills covered:</p> <ul style="list-style-type: none"> Factors and multiples Multiply and divide (including decimals) Area of rectangle, triangle and parallelogram Calculate the mean Further mental strategies | <p>Topic: 2D Geometry</p> <p>Knowledge and skills covered:</p> <ul style="list-style-type: none"> Draw and measure angles Find unknown angles (straight lines, at a point, vertically opposite) Properties of triangles and quadrilaterals Unit conversions (linear) Symmetry and tessellation | <p>Topic: Fractions</p> <p>Knowledge and skills covered:</p> <ul style="list-style-type: none"> Equivalent fractions Compare and order fractions and decimals Change mixed numbers to improper fractions and vice versa Fraction of a quantity Multiply and divide fractions | <p>Topic: Applications of algebra</p> <p>Knowledge and skills covered:</p> <ul style="list-style-type: none"> Order of operations Substitution Form and simplify algebraic expressions Expand over a single bracket, and factorise Sequences (term-to-term, not n^{th} term) | <p>Topic: Percentages and statistics</p> <p>Knowledge and skills covered:</p> <ul style="list-style-type: none"> Construct and interpret statistical diagrams including pie charts Convert between percentages, vulgar fractions and decimals Percentage of a quantity Find the whole, given the part and the percentage |
| <p>Summative assessment:</p> <p>Autumn 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Autumn 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 2 Post Assessment</p> |
| <p>End of year exam</p> | | | | | |

| YEAR 8 (LEGACY MATHS MASTERY) | | | | | |
|--|---|---|---|---|---|
| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| <p>Topic: Prime numbers, factorisation and calculating with fractions</p> <p>BLQ: What's so special about prime numbers?</p> <p>Knowledge and skills covered:</p> <p>Unit 1 – prime numbers and factorisation Unit 2/3 – calculating with fractions</p> | <p>Topic: Algebra</p> <p>BLQ: How do you solve an equation?</p> <p>Knowledge and skills covered:</p> <p>Unit 4 – positive and negative numbers Unit 5 – sequences, expressions and equations</p> | <p>Topic: 2D geometry</p> <p>BLQ: How can you draw a perfect triangle?</p> <p>Knowledge and skills covered:</p> <p>Unit 6/7 – triangles and quadrilaterals Unit 8 – find missing angles Unit 9 – area of parallelograms and trapezia</p> | <p>Topic: Proportional Reasoning</p> <p>BLQ: What has maths got to do with my life?</p> <p>Knowledge and skills covered:</p> <p>Unit 10 – percentage change Unit 11 – ratio and rate</p> | <p>Topic: Statistics</p> <p>BLQ: How does a journalist use maths?</p> <p>Knowledge and skills covered:</p> <p>Unit 12 – collect and organise data Unit 13 – present data Unit 14 – interpret and compare statistical representations</p> | <p>Topic: 3D geometry</p> <p>BLQ: How does an architect use maths?</p> <p>Knowledge and skills covered:</p> <p>Unit 15 – rounding, significant figures and estimation Unit 16 - circumference and area of a circle Unit 17 – 3D shapes and their nets Unit 18 – surface area and volume of cuboids, prisms, cylinders and composite solids</p> |
| <p>Summative assessment:</p> <p>Autumn 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Autumn 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 2 Post Assessment</p> |
| <p>End of year exam</p> | | | | | |

| YEAR 9 (LEGACY MATHS MASTERY) | | | | | |
|--|---|---|---|---|--|
| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| <p>Topic: Coordinates, linear graphs, proportion and standard form</p> <p>BLQ: What's the point of a graph?</p> <p>Knowledge and skills covered:</p> <p>Unit 1 – coordinates Unit 2 – linear graphs Unit 3 – direct and indirect proportion Unit 4 – scales and standard form</p> | <p>Topic: Algebraic expressions</p> <p>BLQ: Why don't we change the subject?</p> <p>Knowledge and skills covered:</p> <p>Unit 5 – sequences Unit 6 – expanding and factorising brackets Unit 7 – changing the subject of a formula</p> | <p>Topic: 2D geometry</p> <p>BLQ: What's the difference between congruence and similarity?</p> <p>Knowledge and skills covered:</p> <p>Unit 8 – constructions Unit 9 – congruence and similarity Unit 10 – triangles and quadrilaterals Unit 11 – angles in polygons</p> | <p>Topic: Equations and inequalities</p> <p>BLQ: How can you solve simultaneous equations?</p> <p>Knowledge and skills covered:</p> <p>Unit 12 – linear equations and inequalities Unit 13 – simultaneous equations Unit 14 – quadratic and other graphs</p> | <p>Topic: Geometry</p> <p>BLQ: Who was Pythagoras?</p> <p>Knowledge and skills covered:</p> <p>Unit 15 – Pythagoras and Trigonometry Unit 16 – transformations Unit 17 - probability</p> | <p>Topic: Statistics</p> <p>BLQ: What's the average?</p> <p>Knowledge and skills covered:</p> <p>Unit 18 – proof Unit 19 – mean from grouped data Unit 20 – comparing data distributions Unit 21 – scatter graphs</p> |
| <p>Summative assessment:</p> <p>Autumn 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Autumn 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 2 Post Assessment</p> |
| <p>End of year exam</p> | | | | | |

| YEAR 10 (LEGACY MATHS MASTERY) | | | | | |
|--|--|--|--|--|--|
| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| <p>Topic: Number</p> <p>BLQ: How can I find my roots?</p> <p>Knowledge and skills covered:</p> <p>Unit 1 – using indices and standard form Unit 2 – geometric change Unit 3 - sequences</p> <p>H Unit 1 – further number H Unit 2 – recurrence relations H Unit 3 – further sequences</p> | <p>Topic: Geometry</p> <p>BLQ: How can I get my bearings?</p> <p>Knowledge and skills covered:</p> <p>Unit 4 – enlargement and similarity Unit 5 – bearings and trigonometry</p> <p>H Unit 4 – further transformations H Unit 5 – triangles from 3D</p> | <p>Topic: Reasoning</p> <p>BLQ: How can I reason with algebra?</p> <p>Knowledge and skills covered:</p> <p>Unit 6 – algebraic reasoning Unit 7 – geometric reasoning Unit 8 - vectors</p> <p>H Unit 6 – trigonometric graphs H Unit 7 – proof H Unit 8 – further inequalities</p> | <p>Topic: Geometry and number</p> <p>BLQ: How can I reason with shapes?</p> <p>Knowledge and skills covered:</p> <p>Unit 9 – properties of 3D shapes Unit 10 – calculations with 3D shapes Unit 11 – geometric reasoning</p> <p>H Unit 9 – upper and lower bounds H Unit 10 – similar areas and volumes H Unit 11 – trigonometry in all triangles</p> | <p>Topic: Sampling and probability</p> <p>BLQ: What are the chances?</p> <p>Knowledge and skills covered:</p> <p>Unit 12 – sampling Unit 13 – theoretical and experimental probability Unit 14 – combined events</p> <p>H Unit 12 – conditional probability</p> | <p>Topic: Applications of algebra</p> <p>BLQ: How can I solve a simultaneous equation?</p> <p>Knowledge and skills covered:</p> <p>Unit 15 – quadratics Unit 16 – non-linear graphs Unit 17 – simultaneous equations</p> <p>H Unit 13 – further quadratics H Unit 14 – exponential graphs H Unit 15 – algebraic fractions</p> |
| <p>Summative assessment:</p> <p>Autumn 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Autumn 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Spring 2 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 1 Post Assessment</p> | <p>Summative assessment:</p> <p>Summer 2 Post Assessment</p> |
| <p>End of year exam</p> | | | | | |

| YEAR 11 (LEGACY MATHS MASTERY) | | | | | |
|---|--|---|--|--|----------|
| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| <p>Higher Tier:</p> <p>Quadratics Right-Angled Triangles Advanced Trigonometry RE: Equation of a Straight Line Inequalities</p> <p>Foundation Tier:</p> <p>Pythagoras' theorem Angle reasoning Area of triangles and trapeziums Area of circles</p> | <p>Higher Tier</p> <p>Equation of a Circle [centre (0,0) only] Advanced Graphs Growth and Decay Direct and Inverse Proportion Vectors</p> <p>Foundation Tier</p> <p>Solving equations Forming equations Ratio Fractions Percentage</p> | <p>Revision based on gaps from Mock exams</p> | <p>Revision based on gaps from Mock exams</p> | <p>Revision based on gaps from Mock exams</p> | |
| <p>Summative assessment:</p> | <p>Summative assessment:</p> <p>December MOCK EXAM</p> | <p>Summative assessment:</p> | <p>Summative assessment:</p> <p>March MOCK EXAM</p> | <p>Summative assessment:</p> <p>n/a</p> | |
| <p>Summer 2020 AQA GCSE Maths Paper 1, 2 and 3</p> <p>Paper 1 – 19th May 2020 Paper 2 – 4th June 2020 Paper 3 – 8th June 2020</p> | | | | | |