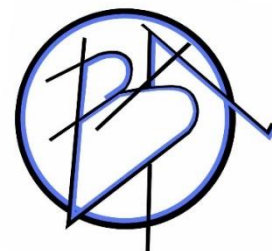




Bocclair Academy - S2 Mathematics Course Plan



The table below outlines the units of work we will complete throughout S2 along with a breakdown of the topics within each unit.

If you click on the link in the final column it will direct you to the appropriate area of Maths Workout. From here, you can then select the number for the individual topic to complete tasks on this area of the curriculum.

The login details can be found on your child's Team page and will have been handed out in class.

| Time allocated | Unit | Topic | Maths Workout Link |
|----------------|-----------------------------------|--|--|
| 2 weeks | Whole Number | Recap of 4 operations Powers and Roots Rounding to significant figures Converting small and large numbers to scientific notation Converting small and large numbers from scientific notation | Number → 1 Number → 18 Number → 16 Number → 21 Number → 21 |
| 4 weeks | Fractions, Decimals & Percentages | Adding and Subtracting Fractions Adding and Subtracting Mixed Numbers Multiplying Fractions including mixed numbers Dividing Fractions including mixed numbers Comparing Fractions by converting decimals Recap fractions and percentages of a quantity with and without a calculator Percentage Increase/Decrease Problems Percentage Profit/Loss | Number → 14 Number → 14 Number → 14 Number → 14 Number → 14 Ratio, Proportion and Rates of Change → 7 Ratio, Proportion and Rates of Change → 7 Ratio, Proportion and Rates of Change → 7 |

| | | | |
|--|-------------------------------|---|--|
| 3 weeks | Time and Money | Time Intervals & Problems Converting minutes to decimal hours and vice versa Calculating Distance Calculating Speed Calculating Time Time Zones Understanding debt Net income Spending and saving Comparing financial products Foreign exchange | Number → 3 Ratio, Proportion and Rates of Change → 4 Ratio, Proportion and Rates of Change → 4 Ratio, Proportion and Rates of Change → 4 |
| 3 weeks | Expressions | Multiplying Single Brackets (+/- terms outside bracket) e.g. $5(x + 6)$, $-x(x - 5)$, $3w(w + 7)$ Multiplying single brackets and simplifying e.g. $5(x + 6) + 7(x - 2)$ Multiplying Pairs of Brackets e.g. $(x + 5)(x - 7)$, $(x - 7)(x^2 + 2x - 1)$ Factorising <ul style="list-style-type: none"> • Common Factor • Difference of Two Squares • Trinomials | Algebra → 3 Algebra → 3 Algebra → 4 |
| 3 weeks | Measurement | Recap of area and perimeter of all 2D shapes. Area of compound 2D shapes including problem solving Surface Area of 3D shapes (cubes, cuboids) Volume of Cubes & Cuboids Volume of Triangular Prism Volume of Cylinder | Geometry & Measures → 13 Geometry & Measures → 13 Geometry & Measures → 16 Geometry & Measures → 15 Geometry & Measures → 15 Geometry & Measures → 15 |
| CALCULATOR & NON CALCULATOR ASSESSMENT 1 | | | |
| 3 weeks | Integers (including gradient) | Recap of 4 operations with integers Substitution involving negative numbers Sketching a line given equation Calculate the gradient of a line | Number → 5 Algebra → 7 Graphs → 2 Graphs → 2 Graphs → 2 |

| | | | |
|---------|----------------------|---|---|
| 3 weeks | Information Handling | Recap of Mean, Median, Mode and Range Mean from a Frequency Table Stem and Leaf Diagrams Scattergraphs Pie Charts Five Figure Summary and Boxplots Comparing Probability | Statistics → 2 Statistics → 9 Statistics → 7 Statistics → 5 Statistics → 6 Statistics → 12 Probability → 3 |
| 3 weeks | Equations | Recap of solving two step equations e.g. $3x + 7 = 28$ Recap of solving equations with unknowns on both sides e.g. $7x - 2 = 3x + 22$ Solving Equations with brackets Solving Equations with fractions Solving Inequations Solving Inequations with unknowns on both sides Solving Inequations with brackets Changing The Subject of the Formula | Algebra → 5 Algebra → 5 Algebra → 5 Algebra → 5 Algebra → 14 Algebra → 14 Algebra → 14 Algebra → 11 |
| 3 weeks | 2D and 3D Shapes | Recap of Area and Circumference of a Circle Pythagoras Theorem – Calculating The Hypotenuse Pythagoras Theorem – Calculating The Shorter Side Pythagoras Theorem problem solving Trigonometry – calculating a missing Trigonometry – calculating a missing angle | Geometry & Measures → 12 & 13 Geometry & Measures → 19 Geometry & Measures → 19 Geometry & Measures → 19 Geometry & Measures → 20 Geometry & Measures → 20 |
| 3 weeks | Angle and Direction | Reduction and Enlargement Scale Factor Angles in a Triangle Angles in a semicircle Corresponding and Alternate Angles in complex diagrams Reading and Measuring 3 Figure Bearings Use F and Z angles to calculate bearings Creating scale drawings using scale factors. | Geometry & Measures → 11 Geometry & Measures → 17 Geometry & Measures → 17 Geometry & Measures → 8 |

CALCULATOR & NON CALCULATOR ASSESSMENT 2