



YEAR 7 CURRICULUM SUMMARY



SUBJECT: Mathematics

| When? | Chapter | Key Learning Objectives Key Questions | Unit Assessments (End of Chapter Tests) |
|-------------|-----------------------------------|---|---|
| HALF TERM 1 | CH 1: Working with numbers | <ul style="list-style-type: none">• multiply and divide negative numbers• find the highest common factor and the lowest common multiple of sets of numbers• use powers and find roots• how to find the prime factors of a number | EOC 1 Test covering <ul style="list-style-type: none">• Times and divide negative numbers• HCF• LCM• Powers and roots• Prime factors |
| | CH 2: Geometry | <ul style="list-style-type: none">• how to identify alternate and corresponding angles• how to classify quadrilaterals according to their geometrical properties• how to rotate a shape• how to translate a shape• how to construct perpendicular lines and angle bisectors | EOC 2 Test covering <ul style="list-style-type: none">• Angles in parallel lines• Quadrilaterals• Translations & enlargements & rotations• Constructing triangles |
| HALF TERM 2 | CH 3: Probability | <ul style="list-style-type: none">• how to work with a probability scale• how to recognise mutually exclusive and non-exclusive outcomes and events• how to work out probabilities, using sample spaces and Venn diagrams where necessary• how to use experimental probability to make predictions | EOC 3 Test covering <ul style="list-style-type: none">• Mutually exclusive outcomes and exhaustive outcomes• sample space• Estimated of probability |



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| <p>HALF TERM 3</p> | <p>CH 4: Percentages</p> | <ul style="list-style-type: none"> • how to write one value as a percentage of another value • how to use a multiplier to calculate a percentage increase or decrease • how to write a change of value as a percentage increase or decrease • how to use percentages to compare two quantities | <p>EOC 4 Test covering</p> <ul style="list-style-type: none"> • Find a percentage of a number • Percentage increase and decrease • Percentage change |
| | <p>CH 5: Sequences</p> | <p>Chapter 5: Sequences</p> <ul style="list-style-type: none"> • how to use flow diagrams to generate sequences • how to use the nth term for sequences • how to work out the nth term of a sequence • how to use the special sequence of Fibonacci numbers | <p>EOC 5 Test covering</p> <ul style="list-style-type: none"> • Flow diagrams • Nth term of a sequence • Fibonacci |
| | <p>CH 6: Area of 2D and 3D shapes</p> | <ul style="list-style-type: none"> • how to work out the areas of triangles, parallelograms and trapezia • how to work out the areas of compound shapes • how to work out the surface areas of cuboids | <p>EOC 6 Test covering</p> <ul style="list-style-type: none"> • Area of a triangle, parallelogram, trapezium • Surface areas of cubes and cuboids |
| | <p>CH 7: Graphs</p> | <ul style="list-style-type: none"> • how to draw graphs of linear equations • how to work out the gradient of a linear graph | <p>EOC 7 Test covering</p> <ul style="list-style-type: none"> • Draw $y = mx + c$ |



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| <p>HALF TERM 4</p> | <p>CH 8: Number</p> | <ul style="list-style-type: none"> • how to work out an equation of the form $y=mx+c$ from its graph • how to draw graphs of simple quadratic equations • how to draw graphs to illustrate real-life situations | <ul style="list-style-type: none"> • Gradient, m • Draw a quadratic • Real life graphs <p>EOC 8 Test covering</p> <ul style="list-style-type: none"> • Powers of 10 • Significant figures • Standard form • Multiplying with numbers in standard form |
| | <p>CH 9: Interpreting data</p> | <ul style="list-style-type: none"> • how to multiply and divide by powers of 10 • how to round numbers to a specific number of significant figures • how to write large numbers in standard form • how to multiply numbers in standard form <ul style="list-style-type: none"> • how to interpret pie charts by the angle size of each sector • how to use the scaling method to construct pie charts • how to use scatter graphs • how to construct scatter graphs | <p>EOC 9 Test covering</p> <ul style="list-style-type: none"> • Pie charts • Scatter graphs • correlation |
| | <p>CH 10: Algebra</p> | <ul style="list-style-type: none"> • how to write and simplify expressions involving all four operations • how to simplify expressions that have a number of terms • how to multiply out brackets in algebraic expressions | <p>EOC 10 Test covering</p> <ul style="list-style-type: none"> • like terms • expand brackets • use powers |



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| HALF TERM 5 | CH 11: Congruence and Scaling | <ul style="list-style-type: none">• how to identify equivalent expressions• how to write algebraic expression involving powers • how to recognise congruent shapes• how to enlarge a shape by a scale factor• how to use shape and ratio• how to use scales in drawings and maps | EOC 11 Test covering <ul style="list-style-type: none">• congruent shapes• ratio of length, area, volume• fractional enlargement• map scales |
| HALF TERM 6 | CH 12: Fractions and decimals CH 13: Proportion | <ul style="list-style-type: none">• how to multiply fractions and integers• how to divide fractions and integers• how multiply large and small numbers• how to divide large and small numbers • how to solve problems involving direct proportion• graphical and algebraic representations of direct proportion• how to solve problems involving inverse proportion• graphical and algebraic representations of inverse proportion • the names of the parts of a circle | EOC 12 Test covering <ul style="list-style-type: none">• add, subtract, times, divide fractions• long multiplication & division EOC 13 Test covering<ul style="list-style-type: none">• direct proportion• inverse proportion |



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| | CH 14: Circles | <ul style="list-style-type: none">• how to calculate the circumference of a circle• how to calculate the area of a circle | EOC 14 Test covering <ul style="list-style-type: none">• area and circumference of a circle• labels eg radius, |
| | CH 15: Equations and Formulae | <ul style="list-style-type: none">• how to solve equations involving brackets and fractions• how to solve equations where the variable occurs more than once• how to rearrange formulae | EOC 15 Test covering <ul style="list-style-type: none">• solve equations with brackets• equations with the variable on both sides• rearrange formulae |
| | CH 16: Comparing data | <ul style="list-style-type: none">• how to construct grouped frequency tables for data• how to interpret and draw grouped frequency diagrams• how to compare two distributions by using an average and the range• how to select the correct average when analysing data | EOC 16 Test covering <ul style="list-style-type: none">• Grouped frequency tables• Draw frequency diagrams• Comparing sets of data• Which average is best |