

## YEAR 8 CURRICULUM SUMMARY

| When ? | Chapter | Key Learning Objectives Key Questions | Unit Assessments (End of Chapter tests) |
| :---: | :---: | :---: | :---: |
| HALF TERM 1 | CH 1: Percentages | - how to calculate simple interest <br> - how to use a multiplier to calculate percentage increases and decreases <br> - how to calculate the original value after a percentage change | EOC 1: Percentages <br> - Simple interest <br> - Percentage increases and decreases <br> - Calculating the original value <br> - Using percentages |
|  | CH 2: Equations and formulae | - how to expand brackets and factorise algebraic expressions <br> - how to solve more complex equations <br> - how to rearrange formulae | EOC 2: Equations and formulae <br> - Multiplying out brackets <br> - Factorising algebraic expressions <br> - Equations with brackets <br> - Equations with fractions |
|  | CH 3: Polygons | - how to calculate the interior and exterior angles of polygons <br> - how to calculate the interior and exterior angles of regular polygons <br> - how regular polygons tessellate <br> - how to make accurate geometric constructions | EOC 3: Polygons <br> - Angles in polygons <br> - Construction <br> - Angles in regular polygons <br> - Tessellations and regular polygons |
|  | CH 4: Using data | - how to interpret correlation from two scatter graphs <br> - how to interpret time-series graphs <br> - how to construct and interpret two-way tables <br> - how to compare two sets of data from statistical diagrams <br> - how to plan a statistical investigation | EOC 4: Using data <br> - Scatter graphs and correlation <br> - Time series graphs <br> - Two-way tables <br> - Comparing two or more sets of data <br> - Statistical investigations |


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| HALF TERM 2 | CH 5: Application of graphs | - how to interpret and draw step graphs <br> - how to interpret and draw time graphs <br> - how to interpret and draw exponential growth graphs | EOC 5: Application of graphs <br> - Step graphs <br> - Time graphs <br> - Exponential growth graphs |
|  | CH 6: Pythagoras' theorem | - how to use Pythagoras' theorem to calculate the lengths of sides in right-angled triangles <br> - how to use Pythagoras' theorem to solve problems | EOC 6: Pythagoras' theorem <br> - Introducing Pythagoras' theorem <br> - Calculating the length of the hypotenuse <br> - Calculating the length of a shorter side <br> - Using Pythagoras' theorem to solve problems |
|  | CH 7: Fractions | - how to multiply any two fractions or mixed numbers <br> - how to divide any two fractions or mixed numbers | EOC 7: Fractions <br> - Adding and subtracting fractions <br> - Multiplying fractions <br> - Multiplying mixed numbers <br> - Dividing fractions and mixed numbers |
| HALF TERM 3 | CH 8: Algebra | - how to expand a bracket when powers are involved <br> - how to factorise an expression when powers are involved <br> - how to expand the product of two brackets | EOC 8: Algebra <br> - More about brackets <br> - Factorising expressions containing powers <br> - Expanding the product of two brackets |
|  | CH 9: Decimal Numbers | - how to extend your ability to work with powers of 10 <br> - when to make suitable rounding and how to use rounded numbers to estimate the results of | EOC 9: Decimal Numbers <br> - Powers of 10 <br> - Standard form <br> - Rounding appropriately |


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| HALF TERM 4 |  | calculations <br> - how to use your calculator efficiently | - Mental Calculations <br> - Solving problems |
|  | CH 10: Prisms and cylinders | - how to convert from one metric unit to another for area and volume <br> - how to calculate the surface area and the volume of a prism <br> - how to calculate the surface area and the volume of a cylinder | EOC 10: Prisms and cylinders <br> - Metric units for area and volume <br> - Volume of a prism <br> - Surface area of a prism <br> - Volume of a cylinder <br> - Surface area of a cylinder |
|  | CH 11: Solving equations graphically | - how to solve linear equations graphically <br> - how to draw a quadratic graph <br> - how to solve quadratic equations graphically <br> - how to solve simultaneous equations graphically | EOC 11: Solving equations graphically <br> - Graphs from equations in the form $a y \pm b x=c$ <br> - Graphs from quadratic equations <br> - Solving quadratic equations by drawing graphs <br> - Solving simultaneous equations by drawing graphs |
|  | CH 12: Compound units | - how to solve problems involving speed <br> - how to calculate and use density <br> - how to solve problems involving compound units <br> - how to calculate unit prices and use them to find value for money | EOC 12: Compound units <br> - Speed <br> - More compound units <br> - Unit costs |
| HALF TERM 5 | CH 13: Right-angled triangles | - what trigonometric ratios are and how to recognise them in right-angled triangles | EOC 13: Right-angled triangles <br> - Introduction to trigonometric ratios <br> - How to find trigonometric ratios of angles <br> - Using trigonometric ratios to find angles |


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|  |  | - how to use trigonometry to calculate angles from two known sides in a right-angled triangle <br> - how to find an unknown length in a right-angled triangle where all angles and one other length are known |
| HALF TERM 6 | CH 14: Revision | - help you to practise and revise topics covered in your current course <br> - get you started on your GCSE course |

