The Bemrose School Curriculum

## Curriculum Overview: Year 8 Maths https://whiterosemaths.com/resources?year=year-8

The school uses the White Rose Maths scheme in math in Year 8

| Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | Summer 1 | Summer 2 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Proportionality Ratio and Scale Multiply and Divide fractions | Representation Cartesian plane Representing data Probability | Algebraic Techniques Brackets, equations \& inequalities Sequences Indices | Developing number <br> Fractions and <br> Percentage <br> Standard index form <br> Number sense | Developing geometry Angles in lines and polygons Area of trapezium and circle Reflections | Data Handling Cycle Measures of location and dispersion |
| Links to prior learning Area, Equations, improper fractions, fractions of an amount <br> Stretch and Challenge Enquiry <br> How do you write ratio 1:n? What do direct proportion graphs look like? Can you use the rules to multiple and divide fractions when they involve algebra? | Links to prior learning One and two step equations Venn diagrams <br> Stretch and Challenge Enquiry <br> How do you calculate gradient of a slope? <br> What can non-linear graphs look like? How can the Product rule save you time counting all the possible outcomes? | Links to prior learning <br> Direct numbers <br> Solve equations <br> Stretch and Challenge Enquiry <br> How do expand more than 2 brackets? How do you solve equations with inequalities? How do you work out the $1000^{\text {th }}$ term in a sequence quickly? | Links to prior learning <br> FDP equivalence Calculations of fractions Compare ratios with FDP <br> Stretch and Challenge Enquiry <br> How do you find the original value if you are given the discounted price? How can you work with square roots without a calculator? <br> When using powers can the answer be less than one? How do you indicate the possible error in your answer? | Links to prior learning <br> Properties of shape <br> Equations of straight lines <br> Stretch and Challenge Enquiry <br> How do you calculate area of circles without a calculator? <br> What is special about diagonal lines in quadrilaterals? | Links to prior learning <br> Find the range <br> Algebraic substitution <br> Links to data collection in <br> other subjects <br> Stretch and Challenge <br> Enquiry <br> How do you calculate the median from table of values? How do represent values in a bar chart by using area? |
| Equipment Needed |  | Wider Reading |  | Family activities |  |
| Scientific calculator <br> Pair of compasses <br> Ruler <br> Pencil <br> Protractor <br> Homework <br> Smart Phone, Tablet, Laptop, Desktop, Wi-Fi <br> Sparx Maths |  | Alex's Adventures in Numberland by Alex Bellos <br> The world of maths can seem mindboggling, irrelevant and, sometimes, boring. This groundbreaking book reclaims maths from the geeks. |  | Maths games <br> https://nrich.maths.org/9465 <br> https://nrich.maths.org/1235 <br> Coordinates Alien Attack - Mathsframe <br> https://www.topmarks.co.uk/maths-games/hit-the-button <br> https://mathsframe.co.uk/en/resources/resource/470/Angle- <br> Alien-Attack <br> Scheme of Work <br> https://whiterosemaths.com/resources?year=year-8 |  |

