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| Curriculum Map | Subject | Maths | Year | 8 |
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| Unit | Summary | Skills (This is not an exhaustive list) | Assessment | British Values and SMSC | Career links | Cross-curricular links |
|------------------------|--|--|--|--|---|---|
| Proportional reasoning | Ratio and scale Multiplicative change Multiplying and dividing fractions | Use ratio notation and solve ratio problems Use scale factors, convert between currencies and draw and interpret scale diagrams and maps. Multiply and divide a fraction by an integer/fraction. Understand and use a reciprocal. | Reviews at the end of each block. Term 1 – Numeracy assessment. Term 3 – Assessment on the Autumn term content. Term 5 – Assessment on the Spring term content. | D of E award Politics. Brexit. Euros. Currencies around the world. Economy. | Hairdressers. Economist. Travel exchange. Travel agents. | Science – with atoms and molecules Dof E |
| Representations | Working in the Cartesian plane Representing data Tables and probability | Plot and interpret straight line graphs using the equations of straight lines. Model situations by translating them into expressions, formulae and graphs. Draw and interpret scatter diagrams. List outcomes using sample space diagrams. Find probabilities. | Term 6 – Numeracy assessment. | Modelling pandemic – analysis. Prime minister and politics. Rule of law. | Statistical analysis. Forensic scientist. Prime minister. | Science – plotting accurate graphs |
| Algebraic techniques | Brackets, equations and inequalities Sequences Indices | Expand and factorise into single brackets. Form and solve equations and inequalities. Generate sequences using more complex rules. Understand and use the addition and subtraction rules. | | Efficiency – modelling. | Business person. | Science – using formulae. |

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|---------------------|---|--|------------|---|--|---|
| Developing number | Fractions and percentages Standard index form Number sense | Evaluate percentage increases and decreases. Use multipliers to solve percentage problems. Convert between ordinary and standard form. Calculate with and without a calculator. Convert between metric measures and units. | | The wonder of the universe/planets. Size of the smallest and largest living creatures and plants. Decimalisation. Why? What were the limitations of Imperial measurements? Curiosity – what were the imperial measurements | Retail, sale items Estimation – retail Member of parliament. | Science – measure and comparisons. Science – experiment accuracy PE – measuring distances |
| Developing geometry | Angles in parallel lines and polygons Area of trapezia and circles Line symmetry and reflection | Understand and use parallel lines and angles Find and use the sum of interior and exterior angles of a polygon. Calculate the area of a circle, trapezium and compound shapes. Reflect shapes in horizontal, vertical and diagonal lines. | | Pi – ongoing research and experimentation to find the next digit of pi. Reward money associated with this. Perseverance | Architecture. Surveyor. Construction. Games designer. Landscape. Ballerina. | Technology. STEM. Art. PE. |
| Reasoning with data | The data handling cycle Measures of location | Interpret, compare and construct statistical diagrams. Find the mean, mode and median. Choose and compare averages/distributions. | | Considering how data can be used in media to mislead us. Students are encouraged to embrace diversity and treat all others with respect both in and out of the classroom. | Stock market. Medicine. Weather predictions. | Geography – world data History – historical information |