|  | Half term 1 | Half term 2 | Half term 3 | Half term 4 | Half term 5 | Half term 6 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Key focus | Ratio and scale Multiplicative change Multiplying and dividing fractions | Prime numbers and proof Probability | Fractions and percentages Standard form | Brackets, equations and inequalities <br> Sequences | Angles in parallel lines and polygons <br> Area | Data cycle <br> Measures of location |
| Key knowledge and skills | Write ratios <br> Recognize ratios as multiplicative change Compare ratios and fractions <br> Share in ratios <br> Convert currencies Explore conversion graphs Multiply simple fractions Multiply fractions greater than one <br> Divide simple fractions Divide fractions greater than one | Recognise number types Make and test conjectures Understand and use sets Understand and use Venn diagrams <br> Use two way tables Use sample space diagrams | Convert between fractions, percentage and decimals Find fractions and percent of amounts Convert between ordinary numbers and standard form <br> Calculate in standard form | Expand brackets (single and double) <br> Factorise single brackets Form and solve equations Form and solve inequalities Generate sequences Find the nth term Using index laws | Know and use angle properties <br> Basic constructions Use rules for area and perimeter | Set up a statistical enquiry Carry out a statistical enquiry <br> Draw and interpret a range of charts <br> Know and use the different averages <br> Identify outliers |
| Key words/ vocabulary | Ratio <br> Scale <br> Share <br> Proportion <br> Integer <br> Simplest <br> Fraction <br> Part <br> Equivalent | Multiple <br> Factor <br> Prime <br> Expression <br> Conjecture <br> Counterexample <br> Set <br> Union <br> Intersect <br> Complement <br> Chance | Fraction <br> Percent <br> Decimal <br> Amount <br> Increase <br> Decrease <br> Multiplier <br> Standard form <br> Indices <br> Negative | Formula <br> Expression <br> Term <br> Identity <br> Equation <br> Inequality <br> Form <br> Solve <br> Rearrange <br> Binomial <br> Term to term <br> Rule <br> Pattern <br> Linear <br> Arithmetic <br> Geometric <br> Index <br> Powers | Angle <br> Property <br> Parallel <br> Polygon <br> Quadrilateral <br> Alternate <br> Co-Interior <br> Corresponding <br> Prove <br> Construct <br> Bisect <br> Sum <br> Area <br> Perimeter <br> Circumference <br> Radius <br> Diameter <br> Trapezia <br> Compound | Enquiry <br> Data <br> Questionnaire <br> Collect <br> Diagram <br> Chart <br> Interpret <br> Quantitative <br> Range <br> Average <br> Mean <br> Median <br> Mode <br> Outlier <br> Appropriate <br> Compare <br> Distribution |


| Assessment method | Topic summaries Formative assessment | Topic summaries Formative assessment Summative assessment points | Topic summaries Formative assessment Summative assessment points | Topic summaries Formative assessment | Topic summaries Formative assessment | Topic summaries Formative assessment Summative assessment points |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Wider links | Art- paint mixing Food- recipes Geography- maps | Geography- world events | Food- sharing Science- large and small numbers | Tech- design Art- modern painters | Tech- design and layout Tech- manufacture | English- analysing text difficulty Geography- Comparing populations |
| Enrichment opportunities | https://nrich.maths.org /6870 https://nrich.maths.org /4793 Independent work - Sparx club | https://nrich.maths.org 14304 <br> https://mrnussbaum. com /probability-fair-onlinegame Independent work - Sparx club | http://nrich.maths.org /6349 Independent work - Sparx club | ```http://nrich.maths.org /8470 Independent work - Sparx club``` | Juinor Maths Challenge http://nrich.maths.org /9711 <br> Suggested reading: A Brief History of Pi Independent work - Sparx club | Statistics investigation Independent work - Sparx club |
| Careers links | Cartographer | Meteorologist Statistician | Rocket scientist | Chemist | Cartographer <br> Architect <br> Designer <br> Storage designer | Statistician <br> Market researcher |

