

## AUTUMN 1

<b>Whole Numbers and Decimals</b> <ul style="list-style-type: none"> <li>- Rounding and estimation</li> <li>- Factors, multiples and primes</li> </ul>	<b>Powers and Roots</b> <ul style="list-style-type: none"> <li>- Squaring, cubing, square rooting, cube rooting</li> <li>- Error intervals</li> <li>- Standard form</li> </ul>	<b>Compound Measures</b> <ul style="list-style-type: none"> <li>- Speed</li> <li>- Density</li> <li>- Pressure</li> </ul>	<b>Prior Learning</b> <ul style="list-style-type: none"> <li>- Factors and multiples (KS2)</li> <li>- Multiplying by 10, 100, 1000... (KS2)</li> <li>- Units (KS2)</li> <li>- Rounding (KS2)</li> </ul>
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## AUTUMN 2

<b>Developing Algebra</b> <ul style="list-style-type: none"> <li>- Indices</li> <li>- Substitution</li> <li>- Expanding/ Factorising</li> <li>- Expanding double brackets</li> <li>- Re-arranging formulae</li> <li>- Solving algebraic problems</li> </ul>	<b>RAR</b> Teachers will use assessment data to revisit topics to improve these skills.	<b>Project 1</b> Linking with the enrichment trip in February to Paris, this project looks at the application of decimals in business management by designing and running a theme park.	<b>Prior Learning</b> <ul style="list-style-type: none"> <li>- Understanding powers (Autumn 1)</li> <li>- Expanding/Factorising (Year7 Spring1)</li> <li>- Algebraic Notation (Year7 Spring1)</li> </ul>
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## SPRING 1

<b>Co-ordinates and Graphs</b> <ul style="list-style-type: none"> <li>- Co-ordinates</li> <li>- Plotting linear graphs</li> <li>- Equation of a line</li> <li>- Conversion graphs</li> </ul>	<b>Fractions and Decimals</b> <ul style="list-style-type: none"> <li>- Fractions of amounts</li> <li>- Converting fractions, decimals and percentages</li> <li>- Add/subtract fractions and mixed numbers</li> <li>- Solve fraction problems</li> </ul>	<b>Percentages</b> <ul style="list-style-type: none"> <li>- Increase/decrease by a percentage</li> <li>- Reverse percentages</li> <li>- Repeated percentage change</li> <li>- Compound and simple Interest</li> <li>- Solve financial problems</li> </ul>	<b>Prior Learning</b> <ul style="list-style-type: none"> <li>- Co-ordinates (KS2)</li> <li>- Real-life graphs (KS2)</li> <li>- Fractions (Year7 Autumn1)</li> <li>- Percentages (Year7 Autumn1)</li> </ul>
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## SPRING 2

<b>Proportion</b> <ul style="list-style-type: none"> <li>- Recipe-style proportion problems</li> <li>- Value for money</li> <li>- Scaled diagrams and maps</li> <li>- Similar shape problems</li> <li>- Using conversions</li> </ul>	<b>RAR</b> Teachers will use assessment data to revisit topics to improve these skills.	<b>Project 2</b> Students will use the skills of fractions, decimals, percentages and financial maths to plan a 'heist' to get back stolen money.	<b>Prior Learning</b> <ul style="list-style-type: none"> <li>- Money problems (KS2)</li> <li>- Metric units (KS2)</li> </ul>
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## SUMMER 1

<b>Sequences</b> <ul style="list-style-type: none"> <li>- Continuing and generating sequences from the nth term</li> <li>- Finding the nth term of a sequence</li> <li>- Problem solving with sequences</li> </ul>	<b>RAR</b> Teachers will use assessment data to revisit topics to improve these skills.	<b>Prior Learning</b> Continuing sequences (KS1/2)
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## SUMMER 2

### CAREERS LINKS

Accountancy, chef, banking insurance, bookmaking, risk analyst, news reporting, analyst, businessperson, performance analyst. Actuaries, economist, meteorologist, carpenter, welder, construction, architecture, joinery, games designer, software design & IT, engineering, catering, hairdressing.

### CHARACTER LINKS

Perseverance and determination skills are fostered (performance virtues) particularly when students do not arrive at the correct answer first time and when trial and error skills are needed. Project work encourages critical thinking, judgement, and reasoning skills (intellectual virtues) to arrive at the outcome.

### KEY ASSESSMENT DATES

Year 8 will have an assessment at the end of every unit (approximately 2-3 weeks). They will have one large assessment at both November and then at the end of the year which will test all the topics that the students have covered.

**RAR**

- Teachers will use assessment data to revisit topics to improve these skills.

**Project 3**

Students will apply their sequences skills to find the treasure.

**Prior Learning**

The previous terms work will influence the project