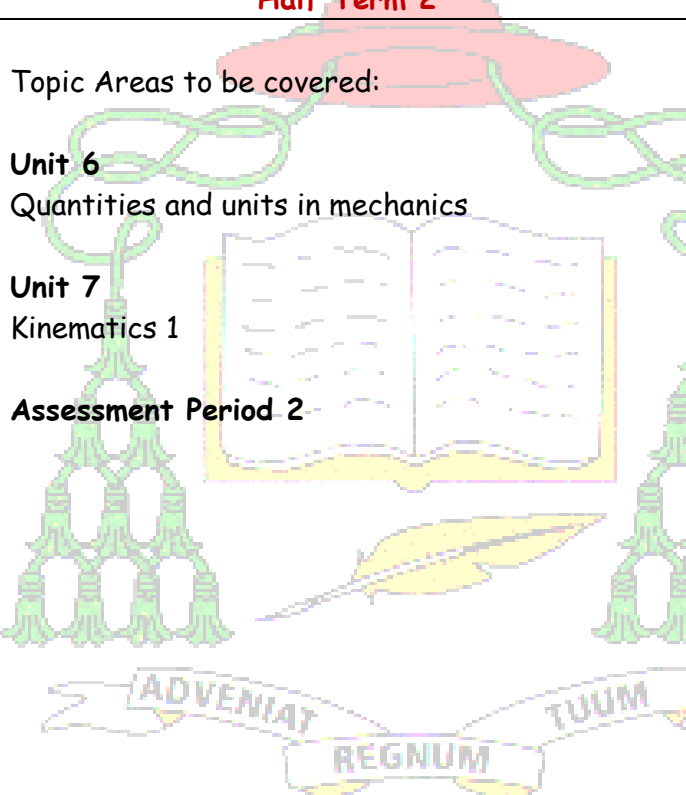
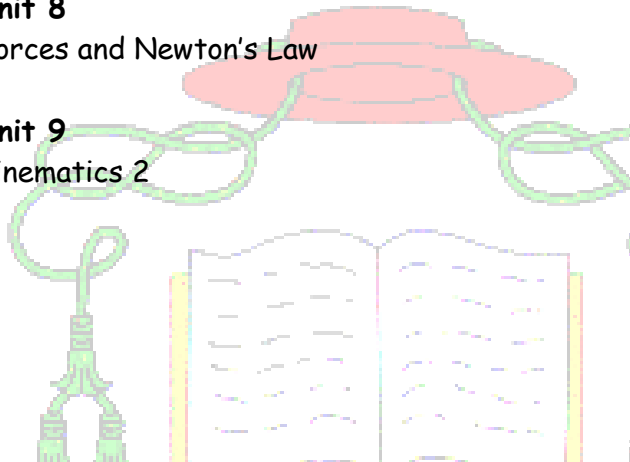
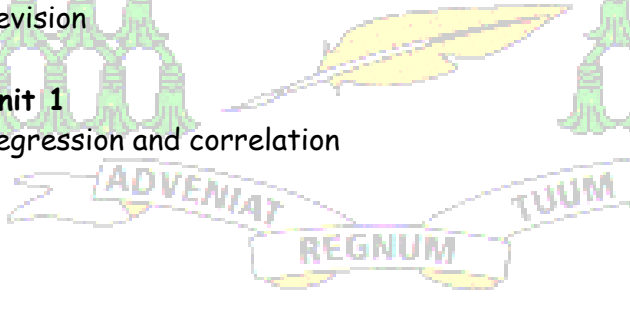


**Archbishop Beck Catholic College Long Term Plan for Maths**

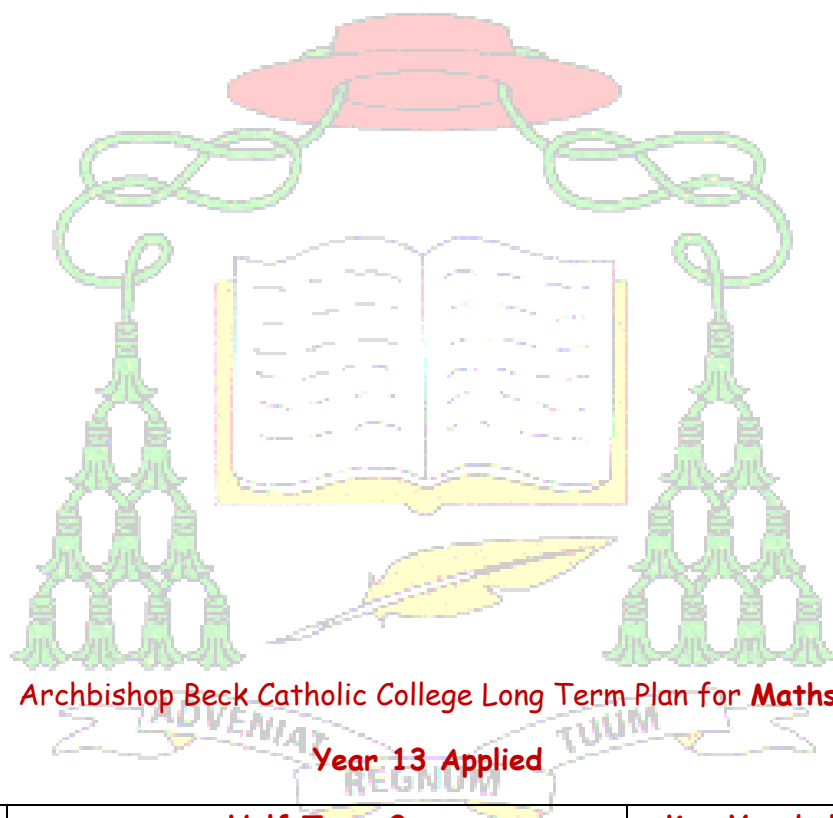
**Year 12 Applied**

<b>Autumn Half Term 1</b>	<b>Half Term 2</b>	<b>Key Vocabulary/Reading Opportunities</b>
<p>Topic Areas to be covered:</p> <p><b>Unit 1</b> Statistical sampling</p> <p><b>Unit 2</b> Data Presentation and interpretation</p> <p><b>Assessment Period 1</b></p>	<p>Topic Areas to be covered:</p> <p><b>Unit 6</b> Quantities and units in mechanics</p> <p><b>Unit 7</b> Kinematics 1</p> <p><b>Assessment Period 2</b></p> 	<p><b>Unit 1</b> Sampling, random, systematic, quota, opportunity, stratified, population, census, quantitative, qualitative, continuous, discrete</p> <p><b>Unit 2</b> Mean, median, mode, modal class, lower quartile, upper quartile, interquartile range, inter percentile range, variance, standard deviation, outliers, histogram, cumulative frequency, box plot</p> <p><b>Unit 6</b> Speed, distance, velocity, displacement, acceleration, inextensible, light, mass, smooth, uniform, particle,</p> <p><b>Unit 7</b> Gravity, Speed, distance, velocity, displacement, acceleration</p>

<b>Spring Half Term 3</b>	<b>Half Term 4</b>	<b>Key Vocabulary/Reading Opportunities</b>
<p>Topic Areas to be covered:</p> <p><b>Unit 3</b> Probability</p> <p><b>Unit 4</b> Statistical distributions</p>	<p>Topic Areas to be covered:</p> <p><b>Unit 8</b> Forces and Newton's Law</p> <p><b>Unit 9</b> Kinematics 2</p> 	<p><b>Unit 3</b> Independent, mutually exclusive, Venn diagrams, tree diagrams</p> <p><b>Unit 8</b> inextensible, light, mass, smooth, uniform, particle, normal reaction, connected particles, forces</p> <p><b>Unit 4</b> Box plots, outliers, histograms, cumulative frequency</p> <p><b>Unit 9</b> Gravity, Speed, distance, velocity, displacement, acceleration</p>
<b>Summer Half Term 5</b>	<b>Half Term 6</b>	<b>Key Vocabulary/Reading Opportunities</b>
<p>Topic Areas to be covered:</p> <p><b>Unit 5</b> Statistical hypothesis testing</p> <p>Revision AS examination</p>	<p>Revision</p> <p><b>Unit 1</b> Regression and correlation</p> 	<p><b>Unit 5</b> Hypothesis testing, null hypothesis, alternative hypothesis, binomial distribution</p> <p><b>Unit 1</b> Product Moment Correlation Coefficient, regression, correlation, scatter graph, bivariate data</p>

Wider learning experiences to support this A Level	Learning Characteristics instilled in the curriculum	Career Opportunities
<p>Jack Brown you tube tutorials AMSP</p>	<p><b>Confidence</b> Use of consolidations and mini-whiteboards to revisit prior learning and allow to students to feel open to making mistakes. Encourage discussion of mistakes and praise those who offer up incorrect solutions/alternate methods for discussion.</p> <p><b>Positive</b> High expectations in presentation of exercise books and weekly homework. Consistent use of praise. Texts home and postcards for Stars of the Week.</p> <p><b>Respectful</b> Learners greeted at the door on arrival and consolidation exercise ready to start upon arrival. Consistent expectations and standards with regards to behaviour. Lead students by example and expect that everybody treats one another as they would like to be treated.</p>	<p>Work experience University visits</p>

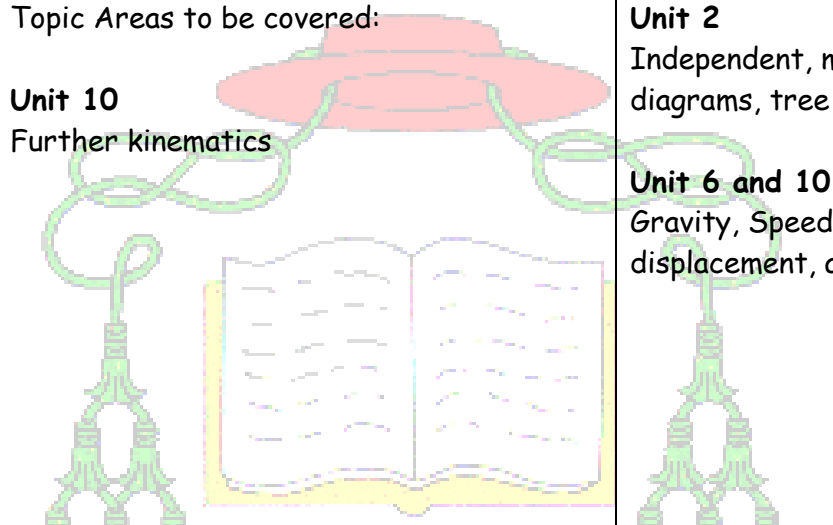
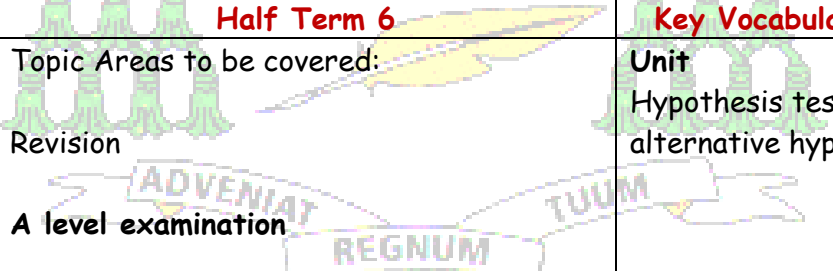
Metacognition Methods applied in Teaching
<ul style="list-style-type: none"> <li>• Consolidation exercise at the beginning of every lesson to revisit prior learning.</li> <li>• Give sufficient thinking time during discussions.</li> <li>• Split topics into appropriate chunks depending on student ability to reduce cognitive overload.</li> <li>• Use of variation exercises when appropriate to deepen conceptual understanding.</li> <li>• Discussion of solutions and the various approaches to problems to find the most efficient method.</li> </ul>



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Year 13 Applied

Autumn Half Term 1	Half Term 2	Key Vocabulary/Reading Opportunities
<p>Topic Areas to be covered:</p> <p><b>Unit 4</b> Moments</p> <p><b>Assessment Period 1</b></p>	<p>Topic Areas to be covered:</p> <p><b>Unit 5</b> Forces and friction</p> <p><b>Unit 7</b> Applications of forces</p> <p><b>Assessment Period 2</b></p>	<p><b>Unit 4, 5 and 7</b> inextensible, light, mass, smooth, uniform, particle, normal reaction, non-uniform, moment, tilting, centre of mass, rigid body</p>

<b>Spring Half Term 3</b>	<b>Half Term 4</b>	<b>Key Vocabulary/Reading Opportunities</b>
<p>Topic Areas to be covered:</p> <p><b>Unit 2</b> Conditional probability</p> <p><b>Unit 6</b> Projectiles</p>	<p>Topic Areas to be covered:</p> <p><b>Unit 10</b> Further kinematics</p> 	<p><b>Unit 2</b> Independent, mutually exclusive, Venn diagrams, tree diagrams</p> <p><b>Unit 6 and 10</b> Gravity, Speed, distance, velocity, displacement, acceleration</p>
<b>Summer Half Term 5</b>	<b>Half Term 6</b>	<b>Key Vocabulary/Reading Opportunities</b>
<p>Topic Areas to be covered:</p> <p><b>Unit 3</b> The Normal Distribution</p> <p>Revision</p>	<p>Topic Areas to be covered:</p> <p>Revision</p> <p><b>A level examination</b></p> 	<p><b>Unit</b> Hypothesis testing, null hypothesis, alternative hypothesis, normal distribution</p>

### Year 13 Pure

<b>Wider learning experiences to support this GCSE</b>	<b>Learning Characteristics instilled in the curriculum</b>	<b>Career Opportunities</b>
<p>Jack Brown you tube tutorials</p> <p>AMSP</p>	<p><b>Confidence</b> Use of consolidations and mini-whiteboards to revisit prior learning and allow to students to feel open to making mistakes. Encourage discussion of</p>	<p>Work experience</p> <p>University visits</p>

mistakes and praise those who offer up incorrect solutions/alternate methods for discussion.

**Positive** High expectations in presentation of exercise books and weekly homework. Consistent use of praise. Texts home and postcards for Stars of the Week.

**Respectful** Learners greeted at the door on arrival and consolidation exercise ready to start upon arrival. Consistent expectations and standards with regards to behaviour. Lead students by example and expect that everybody treats one another as they would like to be treated.

### Metacognition Methods applied in Teaching

- Consolidation exercise at the beginning of every lesson to revisit prior learning.
- Use of a research based Mastery SOW.
- Give sufficient thinking time during discussions.
- Split topics into appropriate chunks depending on student ability to reduce cognitive overload.
- Use of variation exercises when appropriate to deepen conceptual understanding.
- Discussion of solutions and the various approaches to problems to find the most efficient method.