| Date | Wk | Week | Units Studied & Learning Outcomes |
|---|---|---|---|
| 2-Sep | A | 1 | **Basic Algebra Skills (6)**<br>Unit Learning Outcomes<br>GW: Manipulate simple expressions and equations<br>BI: Manipulate quadratic expressions and equations<br>EW: Manipulate equations when given in more complex questions. |
| 9-Sep | B | 2 | |
| 16-Sep* | A | 3 | **Surds (4)**<br>Unit Learning Outcomes<br>GW: Simplify surds using multiplication/division laws<br>BI: Simplify surds including expanding brackets<br>EW: Rationalise denominators |
| 23-Sep | B | 4<br><br>RQ (PM lesson) | **Transformations (4)**<br>Unit Learning Outcomes<br>GW: Transform shapes given an instruction<br>BI: Describe transformations<br>EW: Use negative scale factors for enlargement |
| 30-Sep | A | 5 | **Comparing ratio (3)**<br>Unit Learning Outcomes<br>GW: Understand ratio<br>BI: Combine two ratios<br>EW: Solve multi-ratio problems |
| 7-Oct | B | 6 | **Linear graphs, Gradient and intercept method, ay+bx=c use of cover-up method (4)**<br>Unit Learning Outcomes<br>GW: Draw and interpret linear graphs<br>BI: Find y=mx+c from two coordinates, midpoints<br>EW: Parallel/perpendicular lines |
| 14-Oct | A | 7<br><br>RQ (PM lesson) | **Percentage increase/decrease, Compound interest/Repeated percentage change, Reverse percentage, Percentage profit and loss (4)**<br>Unit Learning Outcomes<br>GW: Percentage Increase/ decrease using calc and non calc methods. Profit/loss.<br>BI: Calculator methods for compound Interest and repeated percentage change<br>EW: Reverse percentage using calc/non calc |
| 21-Oct | B | 8 | **Probability Use of Key words, Combined events, Tree diagrams, Venn diagram set notation (4)**<br>Unit Learning Outcomes<br>GW: Find Probability from tables<br>BI: Represent outcomes in diagrams, to find probabilities.<br>EW: Solve problems, inc conditional probability. |

| Date | | | |
|---|---|---|---|
| 4-Nov | A | 9 | **<u>Product of Primes, Linear and quadratic sequences (4)</u>**<br><u>Unit Learning Outcomes</u><br><span style="color:red">GW: Express a number as a product of prime factors.</span><br><span style="color:orange">BI: Generate sequences and find nth term.</span><br><span style="color:green">EW: Solve problems involving HCF/LCM or sequences.</span> |
| 11-Nov | B | 10<br><br>**RQ (PM lesson)** | **Index Notation, Standard form**<br>**Rational numbers, Irrational numbers (4)**<br><u>Unit Learning Outcomes</u><br><span style="color:red">GW: Understand and use numbers in standard form</span><br><span style="color:orange">BI: Apply Laws of Indices</span><br><span style="color:green">EW: Convert recurring fractions/decimals.</span> |
| 18-Nov | A | 11 | **<u>Solve Quadratic Equations graphically (4)</u>**<br><u>Unit Learning Outcomes</u><br><span style="color:red">GW: Draw quadratic graphs</span><br><span style="color:orange">BI: Draw an appropriate straight line to on a quadratic graph to solve an equation</span><br><span style="color:green">EW: Solve simultaneous equations graphically, where one is a quadratic.</span> |
| 25-Nov | B | 12 | **<u>Averages and Range (4)</u>**<br><u>Unit Learning Outcomes</u><br><span style="color:red">GW: Calculate averages from tables</span><br><span style="color:orange">BI: Estimate the mean/median from tables.</span><br><span style="color:green">EW: Solve problems involving averages.</span> |
| 2-Dec | A | 13 | **<u>Recall and in- class formative assessment & feedback. (3 lessons)</u>** |
| 9-Dec | | 14 | **<u>Right angles triangles. (5)</u>**<br><u>Unit Learning Outcomes</u><br><span style="color:red">GW: Use Pythagoras Theorem</span><br><span style="color:orange">BI: Use Trig in right angled triangles.</span><br><span style="color:green">EW: Solve problems involving Pythagoras and Trigonometry.</span> |
| 16-Dec | A | 15 | **<u>Rates of change, area under a curve, trapezium rule (4)</u>**<br><u>Unit Learning Outcomes</u><br><span style="color:red">GW: Calculate speed, distance, time</span><br><span style="color:orange">BI: Find area under graphs to find distance, and gradients to find rate of change.</span><br><span style="color:green">EW: Use trapeziums to estimate are under curves, and tangents to estimate gradient.</span> |

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| 6-Jan | B | 16 | **Congruence and Similarity (4)**<br><u>Unit Learning Outcomes</u><br>GW: Recognise congruent shapes, and use similarity to find missing lengths.<br>BI: Use similarity in 2D and 3D shapes; area/volume.<br>EW: Prove two triangles are congruent. |
| 13-Jan | A | 17<br>**RQ (PM lesson)** | **Sine and Cosine non right angled triangles (6)**<br><u>Unit Learning Outcomes</u><br>GW: Apply Sine/Cosine Rules<br>BI: Rearrange Sine/Cosine rule to solve problems.<br>EW: Solve multi-step problems involving sine and cosine. |
| 20-Jan | B | 18 | |
| 27-Jan | A | 19 | **Equations of circles (5)**<br><u>Unit Learning Outcomes</u><br>GW: Write the equation when given a circle, identifying the radius and centre.<br>BI: Find the equation of a tangent to a circle.<br>EW: Solve problems involving circles/tangents. |
| 3-Feb | B | 20<br>RQ (PM lesson | **Area and Volume of Similar Figures, Dimensional Analysis, Density, Mass, Pressure (4)**<br><u>Unit Learning Outcomes</u><br>GW Recognise and draw plans and elevations of 3d shapes.<br>BI: Solve problems involving dimensional analysis<br>EW: Solve problems involving dimensional analysis, involving similar shapes |
| 10-Feb | A | 21 | **Cumulative Frequency, Histograms, Frequency Diagrams Box plots (4)**<br><u>Unit Learning Outcomes</u><br>GW Draw and interpret data diagrams<br>BI: Draw and interpret Histograms<br>EW: Compare data from two forms |
| 25-Feb<br><br>(extend into following week) | B | 22 | **Completing the square, quadratic formula, factorising with a coefficient of $x^2$. (6)**<br><u>Unit Learning Outcomes</u><br>GW Factorise a quadratic equation<br>BI: Solve quadratic equations using different methods<br>EW: Solve problems involving quadratics<br><table><tr><td>Prior</td><td>Current</td><td>Next</td></tr></table> |
| 3-Mar | A | 23<br>**RQ (PM lesson)** | **Area and Circumference, Volume and Surface Area (6)**<br><u>Unit Learning Outcomes</u><br>GW Find area and perimeter of sectors<br>BI: Find Volume/ Surface area of 3d shapes<br>EW: Solve problems using circle geometry |
| 10-Mar | B | 24 | |

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| 17-Mar | A | 25 | **Loci, angles in polygons (4)**<br>Unit Learning Outcomes<br>GW Draw basic constructions<br>BI: Draw locus of points.<br>EW: Use multiple constructions to solve Loci problems |
| 24-Mar | B | 26<br>**RQ (PM lesson)** | **Algebraic Fractions (4)**<br>Unit Learning Outcomes<br>GW Simplify algebraic fractions<br>BI: Use four operations with algebraic fractions<br>EW: Solve algebraic fractions |
| 31-Mar | A | ST1 | **Revision, focus on topics using the department template**. |
| 22-Apr | B | ST1 | **Revision, focus on topics using the department template**. |
| 28-Apr | A | ST1 | **Revision, focus on topics using the department template**. |
| 5-May | B | 30 | **EBI TO EXAMS (3**) |
| 12-May | A | 31 | **Algebraic Fractions continued (4)**<br>Unit Learning Outcomes<br>GW Simplify algebraic fractions<br>BI: Use four operations with algebraic fractions<br>EW: Solve algebraic fractions |
| 19-May | B | 32 | **Recall & PinPoint Learning Feedback (3)** |
| 2-Jun | A | 33 | **Kinematics Formulae (3)**<br>Unit Learning Outcomes<br>GW Substitute into Kinematic Formulae<br>BI: Rearrange Formulae to find s/u/v/a/t<br>EW: Solve problems involving Kinematics |
| 9-Jun | B | 34 | **Error Bounds (4)**<br>Unit Learning Outcomes<br>GW Find upper/lower bounds.<br>BI: Write error bounds as an inequality.<br>EW: Solve problems involving error bounds. |
| 16-Jun | A | 35<br>RQ (PM lesson) | **Simultaneous equations, quadratic simultaneous equations(6)**<br>Unit Learning Outcomes<br>GW Solve Linear simultaneous equations<br>BI: Solve simultaneous equations, where one is non-linear.<br>EW: Solve problems involving simultaneous equations. |
| 23-Jun<br>30-Jun | B<br>A | 36<br>37 | **Circle Theorems (6)**<br>Unit Learning Outcomes<br>GW Identify basic circle theorems<br>BI: Combine circle theorems and other angle facts<br>EW: Use circle theorems for proofs |

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| 7-Jul | B | 38 RQ (PM in lesson) | **Translating graphs** <br> <u>Unit Learning Outcomes</u> <br> <span style="color:red">GW Find upper/lower bounds.</span> <br> <span style="color:orange">BI: Write error bounds as an inequality.</span> <br> <span style="color:green">EW: Solve problems involving error bounds.</span> |
| 14-Jul | A | 39 | **Y11 Preparation** |

\* Bank Holidays