

GCSE Linear SOW

4th Year – Set 1

Notes

- This scheme of work relates to the [AQA GCSE Specification 8300](#).
- It is aimed at classes that will fast-track their GCSE, completing the course contact by the November of Year 11. The GCSE examination will be sat in the summer of Year 11.
- The changes required to incorporate the new GCSE are shown in blue.
- This scheme of work includes the topics covered in 4th Year.

GCSE Grade Conversion

The table below shows how the new GCSE grades will relate to the current GCSE grades:

Current GCSE Grade	New GCSE Grade	Notes
A*	9	Grade 9 is the top 20% of students getting grades 7, 8, 9.
	8	
A	7	The bottom of grade 7 is equivalent to the bottom of grade A.
B	6	Grade 5 is equivalent to the bottom third of grade B and the top third of grade C.
	5	
C	4	The bottom of grade 4 is equivalent to the bottom of grade C.
D	3	The new benchmark for an acceptable GCSE in mathematics is likely to be grade 5.
E	2	
F		
G	1	The new Foundation paper will go from grades 5 down to 1.

4th Year – Set 1 SOW

		Topic
**		**START OF YEAR 10**
1Y10	<p>G2.1</p> <p>G1.8</p> <p>G2.2</p>	<p>Similarity & trigonometry (B/C) <i>Understanding properties of similar shapes.</i> <i>Using similar triangles to calculate lengths of unknown sides (6).</i> <i>Calculating unknown sides and angles of right-angled triangles using sine, cosine and tangent (6/7).</i></p> <p><i>Know the exact values of $\sin\theta$ and $\cos\theta$ and $\tan\theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90°.</i></p>
2Y10	<p>G2.2</p>	<p>Pythagoras & trigonometry in 3 dimensions (A*/A) Use Pythagoras and Trigonometry to solve problems in three dimensions (7/8).</p>
3Y10	<p>N3.1</p> <p>N3.2</p> <p>N3.3</p>	<p>Ratio and the unitary method (C/D) Simplifying ratios and converting between ratios, fractions and percentages (3). Sharing quantities in a given ratio (4). Solving problems using the unitary method, including value for money comparisons (4).</p>
4Y10	<p>N3.3</p>	<p>Direct and inverse proportion (A/B) Identify direct and indirect proportion. Perform calculations involving direct and inverse proportionality (7). <i>Recognise and interpret proportionality graphs (7).</i></p>
5Y10	<p>N2.3</p> <p>N1.5</p> <p>N2.4</p>	<p>Fractions, decimals, percentages Review (A/C/D) <i>Converting fractions, decimals, percentages (3).</i> <i>Ordering fractions, decimals, percentages (4).</i> <i>Converting recurring decimals to fractions (7).</i></p>

		Topic
6Y10	N1.3	Accuracy (A/B) Finding the lower and upper bound of rounded numbers (5). Calculating using the lower and upper bound (7). Calculate absolute and percentage error.
**		**HALF TERM**
7Y10	G1.7	Transformations (A/C/D) Perform and fully describe translations, reflections and rotations (3). Enlarge shapes using centre of enlargement and both positive (4) and negative scale factors (6). <i>Describe the changes and invariance achieved by combinations of rotations, reflections and translations.</i>
8Y10		Time Series <i>Calculate moving averages (6).</i>
9Y10	S3.2 S4.4	Cumulative Frequency (B) Constructing a cumulative frequency table for continuous data and drawing cumulative frequency graphs (6). Finding the median and quartiles for both discrete and continuous data (6). Constructing and comparing box & whisker plots (6).
10Y10	S3.2 S4.2 S4.3	Scatter Diagrams (C/D) Constructing scatter graphs for paired data (3). Identifying types of correlation and possible pieces of 'rogue' data (3). Draw a line of best fit and using it for predicting data values (4).
11Y10	N6.12	<i>Speed, distance, time Review (C/D)</i> <i>Calculating using speed, distance and time (3).</i> <i>Constructing and interpreting (gradient gives velocity) distance, time graphs for constant velocity (3).</i>
12Y10	N6.12	Velocity Time, real graphs, rates Review Graphs (A) Constructing and interpreting velocity, time graphs for both constant & non-constant acceleration - gradient gives acceleration (6), area under curve gives displacement (9). <i>Solving problems involving rate of change.</i> <i>Interpret the gradient of a straight-line graph as a rate of change. Interpret the gradient at a point on a curve as the instantaneous rate of change (8) and apply the concepts of average rate of change to the gradient of the chord to a curve (7).</i>

		Topic
13Y10	G2.4	3D-Vision (C/D) Representing 3D shapes using isometric drawings, nets and 2D front, side and plan views (3). Identifying planes of symmetry in 3D solids (3).
**		**CHRISTMAS YEAR 10**
14Y10	G4.3 G4.4 G3.7 G3.4	Area, perimeter and volume Review (A/B/C/D) <i>Calculating the length of an arc and the area of a sector (6). Volume (4) and surface area (5) of prisms. Converting between different metric units of length, area and volume (4).</i>
15Y10		Compound Measures Review <i>Calculate compound measures, including density and pressure (4).</i>
16Y10	G4.5	Length, area volume and enlargement (A/B) Calculating the volume and surface area of pyramids (including frustums-6), cones (5) and spheres (5). <i>Calculate rates of flow in/out of containers (8). Using scale factors for surface area and volume for enlargement of similar solids.</i>
17Y10	N6.5 N6.6	Gradient and equations Review (A/B/C) <i>Determine equation of straight line graphs (4). Equation of parallel and perpendicular lines (7). Equation of line between two points (5).</i>
18Y10	N6.8 N6.13 N6.7	Graphs and further graphs (A*/A/B/C) Recognise quadratic (5), cubic (5), reciprocal (6) and exponential (7) graphs. Draw graphs of quadratic functions and use them to solve quadratic equations, <i>identify and interpret roots, intercepts and turning points (7).</i> <i>Calculate or estimate gradients of graphs and areas under graphs.</i>
19Y10	G1.8 G2.3	Congruent triangles (B/C) Identifying triangles are congruent (6). Using congruent triangles for geometric proofs (7).
**		**HALF TERM**

		Topic
20Y10	G1.5 G2.3	Angles in circles (A/B) Identifying the different parts of a circle. Understand and prove the special rules for angles in circles (8). Finding missing angles using angle in circle rules and using them as part of geometric proofs (8).
21Y10		Expand Triple Brackets Be able to expand triple brackets (7).
22Y10	N5.2 N5.5	Removing brackets and factorising Review (A/B) <i>Factorising quadratic expressions including the difference of two squares (5/7).</i> <i>Solving quadratic equations by factorising (5/7).</i>
23Y10	N6.7 N5.4	Simultaneous equations Review (B) <i>Solving simultaneous equations graphically (5).</i> <i>Solving simultaneous equations by elimination and substitution (5).</i>
24Y10	N5.5	Brackets and quadratic equations 2 (A*/A) Solving quadratic equations by completing the square (8/9) and using the quadratic formula (7). Deduce turning points and the symmetrical property of a quadratic by completing the square (9). Solve problems by first forming quadratic equations. Solve simultaneous equations consisting of one quadratic and one linear equation (8).
25Y10	S1 S2.1 S2.3 S2.4 S2.2 S2.5	Sampling & secondary data (A/C/D) Understanding the handling data cycle and carrying out effective data collection (4). Identifying different types of data including qualitative, quantitative, discrete, continuous, primary and secondary data (4). Understanding different sampling methods and identifying possible bias (4). Calculating stratified samples.
26Y10	S3.2	Histograms (A) Drawing and interpreting histograms (8). Calculating frequency density (7).
**		**EASTER YEAR 10**

		Topic
27Y10	N5.7	Linear and Quadratic Inequalities (B/C) Understanding and writing inequalities (4). Solving 'linear' inequalities (5). Representing and interpreting inequalities on graphs. Solve quadratic inequalities (8/9).
28Y10	N5.9	Algebraic Proof (A*/A/C) Use algebra to prove number statements (7/8) and disprove number statements using a counter example (4).
29Y10	N2.2 N2.6 N2.7	Fractions Review (C/D) <i>Adding, subtracting (4) & multiplying (3) fractions.</i> <i>Understanding reciprocals and dividing fractions (4).</i>
30Y10	N5.3	Algebraic fractions (A*/A/B) Add (8), subtract (8), multiply (6) and divide algebraic (8) fractions. Solve equations involving fractions with algebraic denominators (8/9).
31Y10	N1.8 N1.9	Indices Review (A*/A/B) <i>Understanding index notation.</i> <i>Multiplying, dividing and raising one power to another power (5).</i> <i>Understanding and using negative indices (7).</i> <i>Being able to evaluate fractional indices (7).</i>
32Y10	N6.1	Sequences (C/D) Recognise and use rules for number and pattern sequences, including triangular, square, cube & Fibonacci-type numbers, arithmetic sequences, quadratic sequences and geometric sequences (3/4) Finding the nth term for linear (4) and quadratic sequences (7).
**		**HALF TERM ** **YEAR 10 EXAMS**
33Y10	N5.6	Changing the subject Review (B/C) <i>Re-arranging equations where the new subject appears once (4/5).</i>
34Y10	N5.6	Changing the subject 2 (A*/A) Re-arranging equations where the new subject appears more than once (6).
35Y10		Equation of a Circle Recognise and use the equation of a circle with centre at the origin (7). Find the equation of a tangent to a circle at a given point (9).

		Topic
36Y10	N6.3	Coordinates in 3 dimensions (A) Use co-ordinates in three dimensions.
37Y10	G5.1	Vectors (A*/A) Use vector notation (6). Express positions and lines in terms of vectors (6). Solve geometric problems using vectors (8).
**		**END OF Y10**

Examinations will be held in school at the following times -

- Autumn Term Test 1 (just before October half-term)
- Autumn Term Test 2 (just before Xmas)
- Spring Term Test (just before Easter)

End of Year Exam TBC

Mathematics GCSE Linear SOW

4th Year – Set 2

Notes

- This scheme of work relates to the [AQA GCSE Specification 8300](#).
- Students will sit the examination in the Summer of Year 11.
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- This scheme of work includes the topics covered in 4th Year.

GCSE Grade Conversion

The table below shows how the new GCSE grades will relate to the current GCSE grades:

Current GCSE Grade	New GCSE Grade	Notes
A*	9	Grade 9 is the top 20% of students getting grades 7, 8, 9.
	8	
A	7	The bottom of grade 7 is equivalent to the bottom of grade A.
B	6	Grade 5 is equivalent to the bottom third of grade B and the top third of grade C.
	5	
C	4	The bottom of grade 4 is equivalent to the bottom of grade C.
D	3	The new benchmark for an acceptable GCSE in mathematics is likely to be grade 5.
E	2	
F		
G	1	The new Foundation paper will go from grades 5 down to 1.

4th Year – Set 1 SOW

		Topic
**		**START OF YEAR 10**
1Y10	N1.3 N1.14 N1.4	<p>Using a calculator and approximations (C/D) <i>Using BODMAS for order of operations (3).</i> <i>Using a calculator for complex calculations.</i> <i>Rounding to decimal places (3) and significant figures (3), and estimating calculations (4).</i> <i>Use inequality notation to specify simple error intervals due to truncation or rounding.</i> <i>Estimating square roots (5).</i></p>
2Y10	G2.1	<p>Pythagoras Theorem Review (C) <i>Use Pythagoras Theorem to find the lengths of unknown sides in right-angled triangles (4).</i></p>
3Y10	G1.8	<p>Similarity and enlargement Review(B) <i>Understanding properties of similar shapes.</i> <i>Using similar triangles to calculate lengths of unknown sides (5).</i></p>
4Y10	G2.2	<p>Trigonometry (B) Calculating unknown sides and angles of right-angled triangles using sine, cosine and tangent. <i>Know the exact values of $\sin\theta$ and $\cos\theta$ and $\tan\theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90° (6/7).</i> ** Note. Review for 3rd Year Set 1 Students. **</p>
5Y10	N4.1 N4.2 N5.1 N5.6	<p>Algebraic Expressions Review (B/C/D) <i>Being able to use algebraic notation.</i> <i>Distinguish the meaning of 'expression', 'identify', 'equation' and formula.</i> <i>Simplifying algebraic expressions (3), expanding single (3) & double brackets (4) and factorising into a single bracket (4).</i> <i>Algebraic substitution (3/4).</i></p>
6Y10		<p>Expand Triple Brackets <i>Be able to expand triple brackets (7).</i></p>

4th Year – Set 1 SOW

		Topic
7Y10	N5.4	<i>Solving linear equations Review (B/C/D)</i> <i>Solving equations with unknowns on one side, unknowns on both sides (3) and brackets (4). Forming, then solving linear equations (4).</i>
8Y10	N5.4	Solving linear equations With Fractions (C) Solving equations with fractions (5). ** Note. Review for 3 rd Year Set 1 Students. **
**		**HALF TERM**
9Y10	N2.3 N1.5	<i>Fractions, decimals, percentages Review (C/D)</i> <i>Converting fractions, decimals, percentages (3). Ordering fractions, decimals, percentages (4).</i>
10Y10	N2.4	Converting Recurring Decimals (A) Converting recurring decimals to fractions (7). ** Note. Review for 3 rd Year Set 1 Students. **
11Y10	N2.5 N2.6 N2.7	<i>Percentage Increase and decrease Review (C/D)</i> <i>Finding a percentage of a quantity and one quantity as a percentage of another (3). Calculate percentage increase and decrease (4).</i>
12Y10	N2.7	Further Percentages (B/C) Calculate profit & loss (5), compound interest (5) and reverse percentages (5). ** Note. Review for 3 rd Year Set 1 Students. **
13Y10	G1.7	Transformations (A/C/D) Perform and fully describe translations, reflections and rotations (3). Enlarge shapes using centre of enlargement and both positive (4) and negative scale factors (6). Describe the changes and invariance achieved by combinations of rotations, reflections and translations.

4th Year – Set 1 SOW

		Topic
14Y10	G2.4	3D-Vision (C/D) Representing 3D shapes using isometric drawings, nets and 2D front, side and plan views (3). Identifying planes of symmetry in 3D solids (3).
**		**CHRISTMAS YEAR 10**
15Y10	N3.1 N3.2 N3.3	Ratio and the unitary method (C/D) Simplifying ratios and converting between ratios, fractions and percentages (3). Sharing quantities in a given ratio (4). Solving problems using the unitary method (4).
16Y10	S3.3 S3.2 S4.1	Distributions Review (C/D) <i>Calculate averages and range of discrete data (3).</i> <i>Calculate averages from frequency table (4) and grouped frequency table (5).</i> <i>Construct frequency polygons for continuous data.</i> <i>Being able to interpret and construct pie charts.</i>
17Y10		Time Series <i>Calculate moving averages (6).</i>
18Y10	S3.2 S4.4	Cumulative Frequency (B) Constructing a cumulative frequency table for continuous data and drawing cumulative frequency graphs (6). Finding the median and quartiles for both discrete and continuous data (6). Constructing and comparing box & whisker plots (6).
19Y10	N6.12	Speed, distance, time, real graphs, rates Review (C/D) <i>Calculating using speed, distance and time (3).</i> <i>Constructing distance, time graphs and other real life graphs (3).</i>

		Topic
20Y10	N6.12	<p>Velocity Time, real graphs, rates Review Graphs (A)</p> <p>Constructing and interpreting velocity, time graphs for both constant & non-constant acceleration - gradient gives acceleration (6), area under curve gives displacement (9). <i>Solving problems involving rate of change.</i></p> <p>Interpret the gradient of a straight-line graph as a rate of change. Interpret the gradient at a point on a curve as the instantaneous rate of change (8) and apply the concepts of average rate of change to the gradient of the chord to a curve (7).</p>
21Y10	S3.2 S4.2 S4.3	<p>Scatter Diagrams (C/D)</p> <p>Constructing scatter graphs for paired data (3). Identifying types of correlation and possible pieces of ‘rogue’ data (3). Draw a line of best fit and using it for predicting data values (4).</p>
**		**HALF TERM**
22Y10	N1.10	<p>Standard Form Review (B)</p> <p><i>Writing very large and small numbers in standard form (4).</i> <i>Performing calculations with numbers in standard form (5).</i></p>
23Y10	N1.3	<p>Accuracy (A/B)</p> <p>Finding the lower and upper bound of rounded numbers (5). Calculating using the lower and upper bound (7). Calculate absolute and percentage error.</p>

4th Year – Set 1 SOW

		Topic
24Y10	G4.1 G4.4 G3.7 G3.4	Area, perimeter and volume Review (B/C/D) <i>Area & perimeter of parallelograms (3), triangles (3), trapeziums (4), circles (4) and compound shapes (4). Volume (4) and surface area (5) of prisms. Converting between different metric units of length, area and volume (4).</i>
25Y10	G4.3	Length of Arc & Area of Sector (A) Calculating the length of an arc and the area of a sector (6). ** Note. Review for 3 rd Year Set 1 Students. **
26Y10		Compound Measures Review <i>Calculate compound measures, including density and pressure (4).</i>
27Y10	G4.5	Length, area volume and enlargement (A/B) Calculating the volume and surface area of pyramids (including frustums-6), cones (5) and spheres (5). <i>Calculate rates of flow in/out of containers (8).</i> Using scale factors for surface area and volume for enlargement of similar solids.
28Y10	N3.3	Direct and inverse proportion (A/B) Identify direct and indirect proportion. Perform calculations involving direct and inverse proportionality (7). <i>Recognise and interpret proportionality graphs (7).</i>
**		**EASTER YEAR 10**
29Y10	N6.3 N6.4 N6.5	Gradient and equations Review (C/D) <i>Draw graphs of functions by plotting co-ordinates. Calculate and use gradient (3). Determine equation of straight line graphs (4). Equation of parallel lines (4).</i>

4th Year – Set 1 SOW

		Topic
30Y10	N6.5 N6.6	Perpendicular Lines (B) Equation of perpendicular lines (7). Equation of line between two points (5). ** Note. Review for 3 rd Year Set 1 Students. **
31Y10	N6.8 N6.13 N6.7	Graphs and further graphs (A*/A/B/C) Recognise quadratic (5), cubic (5), reciprocal (6) and exponential (7) graphs. Draw graphs of quadratic functions and use them to solve quadratic equations, identify and interpret roots, intercepts and turning points (7) . Calculate or estimate gradients of graphs and areas under graphs.
32Y10	G1.1 G1.2 G1.3 G3.8	Angle rules Review (C/D) <i>Use basic angle rules; angles on straight line, angles at a point, vertically opposite angles (3).</i> <i>Identify angles on parallel lines (3).</i> <i>Interior and exterior angles of polygons (3).</i>
33Y10	G1.5 G2.3	Angles in circles (A/B) Identifying the different parts of a circle. Understand and prove the special rules for angles in circles (8). Finding missing angles using angle in circle rules and using them as part of geometric proofs (8).
34Y10	G1.8 G2.3	Congruent triangles (B/C) Identifying triangles are congruent (6) Using congruent triangles for geometric proofs (7).
**		**HALF TERM ** **YEAR 10 EXAMS**

		Topic
35Y10	N5.7	Linear and Quadratic Inequalities (B/C) Understanding and writing inequalities (4). Solving 'linear' inequalities (5). Representing and interpreting inequalities on graphs. Solve quadratic inequalities (8/9).
36Y10	N6.1	Sequences (C/D) Recognise and use rules for number and pattern sequences, including triangular, square, cube & Fibonacci-type numbers, arithmetic sequences, quadratic sequences and geometric sequences (3/4) Finding the nth term for linear (4) and quadratic sequences (7).
**		**END OF Y10**

Examinations will be held in school at the following times -

- Autumn Term Test 1 (just before October half-term)
- Autumn Term Test 2 (just before Xmas)
- Spring Term Test (just before Easter)

End of Year Exam TBC

Mathematics GCSE Linear SOW

4th Year – Set 3

Notes

- This scheme of work relates to the [AQA GCSE Specification 8300](#).
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GCSE Grade Conversion

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D	3	The new benchmark for an acceptable GCSE in mathematics is likely to be grade 5.
E	2	
F		
G	1	The new Foundation paper will go from grades 5 down to 1.

4th Year – Set 1 SOW

		Topic
**		**START OF YEAR 10**
1Y10	N1.3 N1.14 N1.4	<p>Using a calculator and approximations (C/D) <i>Using BODMAS for order of operations (3).</i> <i>Using a calculator for complex calculations.</i> <i>Rounding to decimal places (3) and significant figures (3), and estimating calculations (4).</i></p> <p><i>Use inequality notation to specify simple error intervals due to truncation or rounding.</i> <i>Estimating square roots (5).</i></p>
2Y10	G2.1	<p>Pythagoras Theorem Review (C) <i>Use Pythagoras Theorem to find the lengths of unknown sides in right-angled triangles (4).</i></p>
3Y10	G1.8	<p>Similarity and enlargement Review (B) <i>Understanding properties of similar shapes.</i> <i>Using similar triangles to calculate lengths of unknown sides (5).</i></p>
4Y10	G2.2	<p>Trigonometry (B) Calculating unknown sides and angles of right-angled triangles using sine, cosine and tangent. <i>Know the exact values of $\sin\theta$ and $\cos\theta$ and $\tan\theta$ for $\theta = 0^\circ, 30^\circ, 45^\circ, 60^\circ$ and 90° (6/7).</i></p>
5Y10	N4.1 N4.2 N5.1 N5.6	<p>Algebraic Expressions Review (B/C/D) <i>Being able to use algebraic notation.</i> <i>Distinguish the meaning of 'expression', 'identify', 'equation' and formula.</i> <i>Simplifying algebraic expressions (3), expanding single (3) & double brackets (4) and factorising into a single bracket (4).</i> <i>Algebraic substitution (3/4).</i></p>
6Y10		<p>Expand Triple Brackets <i>Be able to expand triple brackets (7).</i></p>
**		**HALF TERM**

4th Year – Set 1 SOW

		Topic
6Y10	N5.4	<i>Solving linear equations Review (B/C/D)</i> <i>Solving equations with unknowns on one side, unknowns on both sides (3) and brackets (4). Forming, then solving linear equations (4).</i>
7Y10	N5.4	Solving linear equations With Fractions (B) Solving equations with fractions (5).
8Y10	N2.3 N1.5	<i>Fractions, decimals, percentages Review (C/D)</i> <i>Converting fractions, decimals, percentages (3). Ordering fractions, decimals, percentages (4).</i>
9Y10	N2.4	Converting Recurring Decimals (A) Converting recurring decimals to fractions (7).
10Y10	N2.5 N2.6 N2.7	<i>Percentage Increase and decrease Review (C/D)</i> <i>Finding a percentage of a quantity and one quantity as a percentage of another (3). Calculate percentage increase and decrease (4).</i>
11Y10	N2.7	Further Percentages (B) Calculate profit & loss (5), compound interest (5) and reverse percentages (5).
**		**CHRISTMAS YEAR 10**
12Y10	G1.7	Transformations (A/C/D) Perform and fully describe translations, reflections and rotations (3). Enlarge shapes using centre of enlargement and both positive (4) and negative scale factors (6). <i>Describe the changes and invariance achieved by combinations of rotations, reflections and translations.</i>
13Y10	N3.1 N3.2 N3.3	Ratio and the unitary method (C/D) Simplifying ratios and converting between ratios, fractions and percentages (3). Sharing quantities in a given ratio (4). Solving problems using the unitary method (4).

		Topic
14Y10	S3.3 S3.2 S4.1	<i>Distributions Review (C/D)</i> <i>Calculate averages and range of discrete data (3).</i> <i>Calculate averages from frequency table (4) and grouped frequency table (5).</i> <i>Construct frequency polygons for continuous data.</i> <i>Being able to interpret and construct pie charts.</i>
15Y10		Time Series Calculate moving averages (6).
**		**HALF TERM**
16Y10	S3.2 S4.4	Cumulative Frequency (B) Constructing a cumulative frequency table for continuous data and drawing cumulative frequency graphs (6). Finding the median and quartiles for both discrete and continuous data (6). Constructing and comparing box & whisker plots (6).
17Y10	G2.4	3D-Vision (C/D) Representing 3D shapes using isometric drawings, nets and 2D front, side and plan views. Identifying planes of symmetry in 3D solids.
18Y10	N6.12	<i>Speed, distance, time, real graphs, rates Review (C/D)</i> <i>Calculating using speed, distance and time (3).</i> <i>Constructing distance, time graphs and other real life graphs (3).</i> <i>Solving problems involving rate of change.</i>

		Topic
19Y10	N6.12	<p>Velocity Time, real graphs, rates Review Graphs (A)</p> <p>Constructing and interpreting velocity, time graphs for both constant & non-constant acceleration - gradient gives acceleration (6), area under curve gives displacement (9). <i>Solving problems involving rate of change.</i></p> <p>Interpret the gradient of a straight-line graph as a rate of change. Interpret the gradient at a point on a curve as the instantaneous rate of change (8) and apply the concepts of average rate of change to the gradient of the chord to a curve (7).</p>
20Y10	S3.2 S4.2 S4.3	<p>Scatter Diagrams (C/D)</p> <p>Constructing scatter graphs for paired data (3). Identifying types of correlation and possible pieces of 'rogue' data (3). Draw a line of best fit and using it for predicting data values (4).</p>
**		**EASTER YEAR 10**
21Y10	N1.10	<p>Standard Form Review (B)</p> <p><i>Writing very large and small numbers in standard form (4).</i> <i>Performing calculations with numbers in standard form (5).</i></p>
22Y10	N1.3	<p>Accuracy (A/B)</p> <p>Finding the lower and upper bound of rounded numbers (5). Calculating using the lower and upper bound (7). Calculate absolute and percentage error.</p>

4th Year – Set 1 SOW

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23Y10	G4.1 G4.4 G3.7 G3.4	Area, perimeter and volume Review (B/C/D) <i>Area & perimeter of parallelograms (3), triangles (3), trapeziums (4), circles (4) and compound shapes (4). Volume (4) and surface area (5) of prisms.</i> <i>Converting between different metric units of length, area and volume (4).</i>
24Y10	G4.3	Length of Arc & Area of Sector (A) Calculating the length of an arc and the area of a sector (6).
25Y10		Compound Measures Review <i>Calculate compound measures, including density and pressure (4).</i>
26Y10	G4.5 G3.2	Length, area volume and enlargement (A/B) Calculating the volume and surface area of pyramids (including frustums-6), cones (5) and spheres (5). <i>Calculate rates of flow in/out of containers (8).</i> Using scale factors for surface area and volume for enlargement of similar solids.
**		**HALF TERM** **YEAR 10 EXAMS**
27Y10	N6.3 N6.4 N6.5	Gradient and equations Review (C/D) <i>Draw graphs of functions by plotting co-ordinates.</i> <i>Calculate and use gradient (3).</i> <i>Determine equation of straight line graphs (4).</i> <i>Equation of parallel lines (4).</i>
28Y10	N6.5 N6.6	Perpendicular Lines (B) Equation of parallel and perpendicular lines (7). Equation of line between two points (5).
29Y10	N3.3	Direct and inverse proportion (A/B) Identify direct and indirect proportion. Perform calculations involving direct and inverse proportionality (7). <i>Recognise and interpret proportionality graphs (7).</i>
**		**END OF Y10**

Examinations will be held in school at the following times -

- Autumn Term Test 1 (just before October half-term)
- Autumn Term Test 2 (just before Xmas)
- Spring Term Test (just before Easter)

End of Year Exam TBC