FRAMEWORK FOR LEARNING

CHS South

CREATIVE	An education where imagination, curiosity and resilience enable us to ignite our learning.
HAPPY	A shared belief that optimism, empathy and responsibility are the foundations for a respectful, safe and inclusive community.
SUCCESSFUL	Individuals who are ready to learn, practise being reflective, and are motivated to become champions.

SUBJECT	## Maths
INTENT	"Without mathematics, there's nothing you can do. Everything around you is mathematics. Everything around you is numbers." - **Shakuntala Devi** Maths is a universal language that explains the world around us. The study of Mathematics enables you to make sense of everyday situations, forge links between topics and establish connections to real life context. Maths fosters curiosity, equipping students with various strategies to tackle problems; it empowers students with resilience to take risks, get it wrong, form a new strategy and start again, with determination and drive to reach the final answer. Maths is logical thinking, reasoning, intuition, analysis, construction, generalisation and beauty.

YEAR GROUP	YEAR 11 – HIGHER TIER
RATIONAL / NARRATIVE	Year 11 seeks to harness students' skills and knowledge, creating mathematicians who are forging links between topics and linking problems to everyday life scenarios. Students seek to understand why processes work, understand their limitations, evaluate and generalise methods in preparation for their GCSE and future careers. Given that the vast majority of the curriculum has now been covered in Years 7 to 10, students will be directed to the areas outlined below following a robust assessment schedule and careful analysis of, and reaction to Question Level Analysis data.

TERM KNOWLEDGE	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1
	Number • Fractional and negative indices • Product Rule • Upper & Lower Bounds • Surds including rationalizing • Harder compound interest problems **Ratio & Proportion** • Problem-solving with ratio (e.g. combined ratios) **Geometry & Measure** • Angles in polygons • Compound measures • Co-ordinate geometry • Surface area and volume of cylinders, cones, spheres and cylinder • Transformations **Algebra** • Expanding and factorizing • Recurring decimals to fractions **Statistics & Probability**	**Ratio & Proportion** • Direct & Inverse Proportion **Geometry & Measure** • Similarity in 2D and 3D • Further trigonometry **Algebra** • Quadratics including the formula • Iteration • Simultaneous Equations • Using graphs of circles, cubes and quadratics • Graphs of trigonometric functions • Transformations of graphs **Statistics & Probability** • Sampling • Cumulative frequency & boxplots • Histograms • Conditional Probability	**Algebra** • Gradient & Area under a curve • Algebraic Proof • Functions **Geometry & Measure** • Circle geometry (gradients/tangents) • Circle Theorems • Loci • Congruence & Geometric Proof • Vectors	Revision based topics tailored to students' specific learning needs as identified through use of PLCs and practice examinations.	Revision based topics tailored to students' specific learning needs as identified through use of PLCs and practice examinations.

SKILLS					
	• Averages from frequency tables incl. grouped)				
	• Recalling key formulae across the specification • 4 Operations • Manipulating algebraic expression • Solving an equation and checking whether it works through substitution • Identifying parallel and perpendicular lines • Drawing and labelling axes • Comparing and interpreting averages and range • Solving multistep worded problems • Use of mathematical equipment • Reading scales • Rounding • Recognising parts of a whole • Confidence at using a calculator • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving, such as drawing a diagram or using bar modelling • finding an error in a process and being able to correct it • interpreting solutions in the context of the	• Recalling key formulae across the specification • Interpreting data • Manipulating algebraic expressions • Pattern recognition • Understanding how ratio/proportion link together • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving, such as drawing a diagram or using bar modelling • finding an error in a process and being able to correct it • interpreting solutions in the context of the given problem, ensuring an answer is sensible • making and using connections, which may not be immediately obvious, between different parts of mathematics	• Recalling key formulae across the specification • Accurate use of mathematical equipment such as a ruler, protractor and compass • Confidence at using a calculator • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving, such as drawing a diagram or using bar modelling • finding an error in a process and being able to correct it • interpreting solutions in the context of the given problem, ensuring an answer is sensible • making and using connections, which may not be immediately obvious, between different parts of mathematics	• Recalling key formulae across the specification • Interpreting data • Manipulating algebraic expressions • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving, such as drawing a diagram or using bar modelling • finding an error in a process and being able to correct it • interpreting solutions in the context of the given problem, ensuring an answer is sensible • making and using connections, which may not be immediately obvious, between different parts of mathematics	

	given problem, ensuring an answer is sensible • making and using connections, which may not be immediately obvious, between different parts of mathematics				
ASSESSMENT	Marking Point 1 Students will complete a mock GCSE examination paper for the new specification 9-1 GCSE during Week 3 of the term. Students will be provided with feedback on their examination in the form of a Personal Learning Checklist. Marking Point 2 1 x in-class practice examination paper will be teacher assessed, with identified areas of strength and areas for development as part of a Feedback Workshop.	Marking points 3/4/5: College Mock examinations Students will sit a full set of three paper, as part of their College Entry examinations. Feedback will be in the form of detailed Question Level Analysis which provides students with a Red/Amber/Green breakdown of performance and provides them with Next Steps to progress. .	Marking Point 1 Students will complete a full mock GCSE examination paper for the new specification 9-1 GCSE during Week 1 of Spring term. Students will be provided with feedback on their examination in the form of a Personal Learning Checklist. Marking Point 2 1 x in-class practice examination paper will be teacher assessed, with identified areas of strength and areas for development as part of a Feedback Workshop.	Marking points 3/4/5: Spring Term Mock examinations Students will sit a full set of three papers, as part of their Spring term examinations. Feedback will be in the form of detailed Question Level Analysis which provides students with a Red/Amber/Green breakdown of performance and provides them with Next Steps to progress.	
HOME LEARNING	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series.	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series.	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series.	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series.	

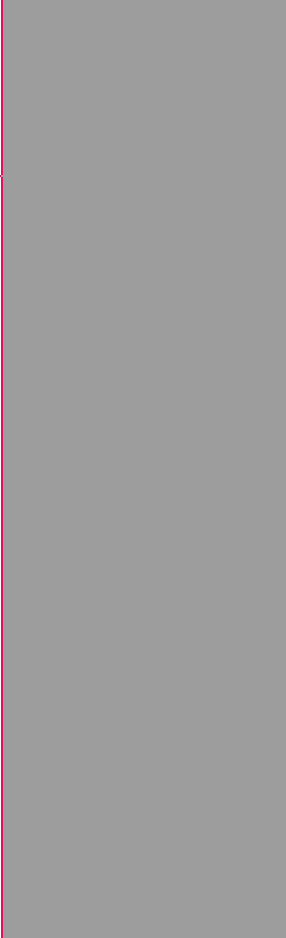|					
	Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	- Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning	
READING, WRITING, TALK, NUMERACY	Peer assess each other's seen paper performance identify missing marks and checking questions. Links to etymology where appropriate through our whole school SEEC model. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	Peer assess each other's seen paper performance identify missing marks and checking questions. Links to etymology where appropriate through our whole school SEEC model. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	Peer assess each other's seen paper performance identify missing marks and checking questions. Links to etymology where appropriate through our whole school SEEC model. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	A02/A03 problem solving exam questions to solve in groups. Mark scheme to support. Students to predict what they might have to calculate in a question. Links to etymology where appropriate through our whole school SEEC model. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	A02/A03 problem solving exam questions to solve in groups. Mark scheme to support. Links to etymology where appropriate through our whole school SEEC model. Students to predict what they might have to calculate in a question.
TIER 2 VOCABULARY	Expand, express, simplify, substitute, derive, sector, rearrange.	Simultaneous, area, process , determine, outline.	Justify, prove, evaluate	Command words in exams: Evaluate, complete, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.	Command words in exams: Evaluate, complete, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.
TIER 3 VOCABULARY	Integer, surd, irrational standard form, simplify, rationalise, recurring, expression, identity, equation, formula, expand, simplify, completing the square, factorise. Cone, cylinder, surface area, translation,	Mutually exclusive, conditional, outcomes, theoretical, relative frequency, rearrange, similar, length, area, volume, scale factor, stratified sample, random, cumulative frequency, box plot, histogram, frequency	Gradient, cyclic, chord, reciprocal, perpendicular quadrilateral, alternate, segment, subject, proof, function notation, inverse, vector, congruence, direction, magnitude, scalar, ratio, parallel, proof, column vector.		

PSPSMC, BRITISH VALUES AND DIVERSITY	rotation, reflection, enlargement, vector. Speed, density, pressure, force. Mean, median, mode, range.	density, interquartile range, spread, outlier, arc, segment, sector, circumference, radius, diameter, pi.			
	Economic Wellbeing – Debt… How are prime factors keeping online transactions secure? Prevention of fraud. Citizenship/ Cultural – Why do we have different units for measurement? Where did they come from? British Values – During lessons students are encouraged to reflect on learning and take responsibility for their behaviour. Students are encouraged to respect their peers. Through teacher/self and peer feedback, students develop their self-confidence and self-esteem.	Economic well-being – students are able to identify and analyse data in a variety of forms. Social – interpretation of real-life graphs. Personal – students are given a 'personal learning checklist following each practice paper and asked to reflect on their progress, identifying their areas of development to focus independent revision.	Cultural – Constructions are useful for a range of jobs including engineering, architecture and town planning. Discussion of why engineers use circles in constructions such as bridges. Economic Wellbeing – using graphs to work out when certain companies are better value.	Personal - promotion of independence and self confidence with clear focus on exam technique and exam questions.	Personal - promotion of independence and self confidence with clear focus on exam technique and exam questions.

YEAR GROUP	YEAR 11 – CROSSOVER
RATIONAL / NARRATIVE	Year 11 seeks to harness students' skills and knowledge, creating mathematicians who are forging links between topics and linking problems to everyday life scenarios. Students seek to understand why processes work, understand their limitations, evaluate and generalise methods in preparation for their GCSE and future careers.

TERM KNOWLEDGE

AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1
Number • Error Intervals • Compound Interest • Depreciation & Decay • Standard Form • Fractional and negative indices **Ratio & Proportion** • Problem-solving with ratio (e.g. combined ratios) **Geometry & Measure** • Speed/distance/ time • Compound Measures • Angles in parallel lines • Angles in polygons **Algebra** • Solving equations and inequalities • Changing the subject • Inequalities • Linear graphs • Y=mx+c • Parallel and perpendicular lines • Quadratic and cubic graphs • Quadratics – expanding and factorising	**Ratio & Proportion** • Standard Form • Proportional reasoning • Direct & Inverse Proportion **Geometry & Measure** • Trigonometry • Pythagoras & Trig • Finding exact values • Bearings • Arcs and sectors • Surface area • Volume • Transformations • Vectors **Algebra** • Quadratic sequences • Forming and solving (inc. geometrical problems) **Statistics & Probability** • Histograms • Sampling	**Number** • Surds • Bounds **Algebra** • Expanding triple brackets • Algebraic Fractions • Quadratic formula **Geometry & Measure** • Similarity • Similarity in area and volume • Circle Theorems • Constructions	Revision based topics tailored to students' specific learning needs as identified through use of PLCs and practice examinations.	Revision based topics tailored to students' specific learning needs as identified through use of PLCs and practice examinations.

SKILLS

Statistics & Probability • Reverse Mean • Averages from a frequency table (inc. grouped) • Boxplots • Cumulative Frequency • Frequency Polygons • Tree diagrams				
• Recalling key formulae across the specification • 4 Operations • Manipulating algebraic expression • Solving an equation and checking whether it works through substitution • Identifying parallel and perpendicular lines • Drawing and labelling axes • Comparing and interpreting averages and range • Solving multistep worded problems • Use of mathematical equipment • Reading scales • Rounding • Recognising parts of a whole • Confidence at using a calculator • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving,	• Recalling key formulae across the specification • Interpreting data • Manipulating algebraic expressions • Pattern recognition • Understanding how ratio/proportion link together • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving, such as drawing a diagram or using bar modelling • finding an error in a process and being able to correct it • interpreting solutions in the context of the given problem, ensuring an answer is sensible • making and using connections, which may not be immediately obvious, between different parts of mathematics	• Recalling key formulae across the specification • Accurate use of mathematical equipment such as a ruler, protractor and compass • Confidence at using a calculator • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving, such as drawing a diagram or using bar modelling • finding an error in a process and being able to correct it • interpreting solutions in the context of the given problem, ensuring an answer is sensible • making and using connections, which may not be immediately obvious, between different parts of mathematics	• Recalling key formulae across the specification • Interpreting data • Manipulating algebraic expressions • Interpreting an unfamiliar context and applying a method to solve it • developing strategies for problem-solving, such as drawing a diagram or using bar modelling • finding an error in a process and being able to correct it • interpreting solutions in the context of the given problem, ensuring an answer is sensible • making and using connections, which may not be immediately obvious, between different parts of mathematics	

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HOME LEARNING	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer	

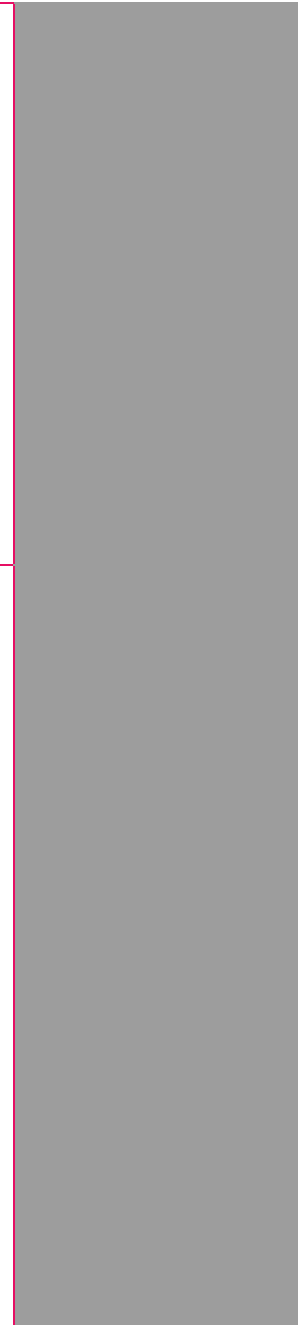| READING, WRITING, TALK, NUMERACY	assessed in class. Pupil friendly mark schemes have been created for most exam series. Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	assessed in class. Pupil friendly mark schemes have been created for most exam series. Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	assessed in class. Pupil friendly mark schemes have been created for most exam series. Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	assessed in class. Pupil friendly mark schemes have been created for most exam series. - Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning	
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TIER 2 VOCABULARY	Expand, express, simplify, substitute, derive, rearrange, evaluate, simultaneous	Area, process , determine, outline, sector	Justify, prove, evaluate, similar.	Command words in exams: Evaluate, complete, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.	Command words in exams: Evaluate, complete, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.
TIER 3 VOCABULARY	Integer, prime, lowest common multiple (LCM), highest common factor (HCF), union, intersection, value, estimate, currency, convert, round, truncate,	Ratio, proportion, direct, inverse, reciprocal, constant. standard form.	Surd, irrational, square root, error intervals, polynomials. Quadratic, co-efficient. Numerator, denominator.		

bounds, original, percentage, proportion, multiplier, compound/simple interest, depreciation, decay. Expression, identity, equation, simplify, formula, substitute, subject, factorise, Cumulative, frequency, outliers, mean, median, mode, range Speed, density, pressure. Parallel, perpendicular, polygon, gradient.	Hypotenuse, bearing, arc, segment, circumference, radius, diameter, pi. Cone, cylinder, surface area, translation, rotation, reflection, enlargement, vector, column vectors. Quadratic, nth term	Congruent, scale factor, ratio Gradient, cyclic, chord, perpendicular quadrilateral, alternate, segment, prove, proof. Parallel, bisector, construct.		

PSPSMC, BRITISH VALUES AND DIVERSITY

Economic Wellbeing – Debt… How are prime factors keeping online transactions secure? Prevention of fraud. Citizenship/ Cultural – Why do we have different units for measurement? Where did they come from? British Values – During lessons students are encouraged to reflect on learning and take responsibility for their behaviour. Students are encouraged to respect their peers. Through teacher/self and peer feedback, students develop their self-confidence and self-esteem.	Economic well-being – students are able to identify and analyse data in a variety of forms. Social – interpretation of real-life graphs. Personal – students are given a 'personal learning checklist following each practice paper and asked to reflect on their progress, identifying their areas of development to focus independent revision.	Cultural – Constructions are useful for a range of jobs including engineering, architecture and town planning. Discussion of why engineers use circles in constructions such as bridges. Economic Wellbeing – using graphs to work out when certain companies are better value.	Personal - promotion of independence and self confidence with clear focus on exam technique and exam questions.	Personal - promotion of independence and self confidence with clear focus on exam technique and exam questions.

YEAR GROUP	YEAR 11 – FOUNDATION TIER
RATIONAL / NARRATIVE	Year 11 seeks to harness students' skills and knowledge, creating mathematicians who are forging links between topics and linking problems to everyday life scenarios. Students seek to understand why processes work, understand their limitations, evaluate and generalise methods in preparation for their GCSE and future careers.

TERM	AUTUMN 1	AUTUMN 2	SPRING 1	SPRING 2	SUMMER 1
KNOWLEDGE	**Number** • Product of prime numbers • Worded HCF and LCM • Best Value • Exchange Rates • Rounding and estimation • Error intervals • Interest and growth • Depreciation and decay • Use of a calculator • Reverse Percentages • Fractions • Standard Form **Ratio & Proportion** • Problem-solving with ratio (e.g. combined ratios) • Proportion – recipes **Algebra** • Expanding and simplifying • Factorising • Solving equations • Changing the subject • Inequalities **Statistics & Probability** • Averages from a table and grouped data	**Geometry & Measure** • Speed/distance/time • Compound measures • Pythagoras • Trigonometry • Pythagoras and trigonometry combined • Bearings • Alternate and corresponding angles • Interior and exterior angles **Algebra** • Linear graphs • Quadratic and cubic graphs • Co-ordinate geometry • Real life graphs **Statistics & Probability** • Frequency diagrams • Scatter graphs • Time Series • Sampling • Pie Charts • Probability • Tree diagrams	**Algebra** • Sequences • Forming and solving equations • Simultaneous equations • Direct and inverse proportion **Geometry & Measure** • Plans and elevations • Constructions • Circles • Arcs and sectors • Surface area and volume • Congruence • Similar Shapes • Transformations • Vectors	Revision based topics tailored to students' specific learning needs as identified through use of PLCs and practice examinations.	Revision based topics tailored to students' specific learning needs as identified through use of PLCs and practice examinations.

SKILLS

• Recalling key formulae across the specification • 4 Operations • Manipulating algebraic expressions • Solving an equation and checking whether it works through substitution • interpreting averages and range • Solving multistep worded problems • Rounding • Understanding how ratio/proportion link together • Confidence at using a calculator • Interpreting an unfamiliar context and applying a method to solve it • Developing strategies for problem-solving, such as drawing a diagram or using bar modelling • Finding an error in a process and being able to correct it • Interpreting solutions in the context of the given problem, ensuring an answer is sensible • Making and using connections, which may not be immediately obvious, between different parts of mathematics	• Recalling key formulae across the specification • Interpreting data • Manipulating algebraic expressions • Drawing and labelling axes • Reading scales • Accurate use of mathematical equipment such as a ruler, protractor and compass • Comparing and • Pattern recognition • Interpreting an unfamiliar context and applying a method to solve it • Developing strategies for problem-solving, such as drawing a diagram or using bar modelling • Finding an error in a process and being able to correct it • Interpreting solutions in the context of the given problem, ensuring an answer is sensible • Making and using connections, which may not be immediately obvious, between different parts of mathematics	• Recalling key formulae across the specification • Confidence at using a calculator • Interpreting an unfamiliar context and applying a method to solve it • Developing strategies for problem-solving, such as drawing a diagram or using bar modelling • Finding an error in a process and being able to correct it • Interpreting solutions in the context of the given problem, ensuring an answer is sensible • Making and using connections, which may not be immediately obvious, between different parts of mathematics	• Recalling key formulae across the specification • Interpreting data • Manipulating algebraic expressions • Interpreting an unfamiliar context and applying a method to solve it • Developing strategies for problem-solving, such as drawing a diagram or using bar modelling • Finding an error in a process and being able to correct it • Interpreting solutions in the context of the given problem, ensuring an answer is sensible • Making and using connections, which may not be immediately obvious, between different parts of mathematics

ASSESSMENT	Marking Point 1 Students will complete a mock GCSE examination paper for the new specification 9-1 GCSE during Week 3 of the term. Students will be provided with feedback on their examination in the form of a Personal Learning Checklist. Marking Point 2 1 x in-class practice examination paper will be teacher assessed, with identified areas of strength and areas for development as part of a Feedback Workshop.	Marking points 3/4/5: College Mock examinations Students will sit a full set of three paper, as part of their College Entry examinations. Feedback will be in the form of detailed Question Level Analysis which provides students with a Red/Amber/Green breakdown of performance and provides them with Next Steps to progress. .	Marking Point 1 Students will complete a full mock GCSE examination paper for the new specification 9-1 GCSE during Week 1 of Spring term. Students will be provided with feedback on their examination in the form of a Personal Learning Checklist. Marking Point 2 1 x in-class practice examination paper will be teacher assessed, with identified areas of strength and areas for development as part of a Feedback Workshop.	Marking points 3/4/5: Spring Term Mock examinations Students will sit a full set of three papers, as part of their Spring term examinations. Feedback will be in the form of detailed Question Level Analysis which provides students with a Red/Amber/Green breakdown of performance and provides them with Next Steps to progress.	
HOME LEARNING	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series. Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series. Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series. Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning.	Students alternate the style of home learning each week with two different formats: - By completing Practice Papers at home which will either be self/peer assessed in class. Pupil friendly mark schemes have been created for most exam series. - Students will also be set weekly revision tasks on Sparx to complement their paper-based home learning	

READING, WRITING, TALK, NUMERACY	Peer assess each other's seen paper performance identify missing marks and checking questions. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	Peer assess each other's seen paper performance identify missing marks and checking questions. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	Peer assess each other's seen paper performance identify missing marks and checking questions. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	A02/A03 problem solving exam questions to solve in groups. Mark scheme to support. Students to predict what they might have to calculate in a question. Numeracy is embedded across the Mathematics curriculum. Numeracy interventions will be put into place for students identified as underperforming for specific topics.	A02/A03 problem solving exam questions to solve in groups. Mark scheme to support. Students to predict what they might have to calculate in a question.
TIER 2 VOCABULARY	Expand, express, simplify, substitute, derive, rearrange, evaluate, simultaneous	Area, process, parallel determine, outline, sector	Plan, similar, simultaneous, area	Command words in exams: Evaluate, complete, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.	Command words in exams: Evaluate, complete, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.
TIER 3 VOCABULARY	Integer, prime, lowest common multiple (LCM), highest common factor (HCF), union, intersection, value, estimate, currency, convert, round, truncate, bounds, original. Compound interest, simple interest, depreciate, multiplier, ratio, proportion, multiplier. Expression, identity, equation, simplify, formula, substitute, subject, expand, factorise, rearrange, evaluate, standard form. Mean, median, mode, range, frequency,	Alternate, corresponding, polygon, interior, exterior, bearing, hypotenuse. Linear, quadratic, cubic, axes, gradient, intercept, linear, speed, density, pressure. Sample, theoretical, expected, outcomes, independent. Correlation, line of best fit, trend.	Plan, elevation, bisector, perpendicular, arc, segment, sector, circumference, radius, diameter, pi, translation, reflection, rotation, enlargement, volume, vector, eliminate. Co-efficient, eliminate.	Command words: Evaluate, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.	Command words: Evaluate, solve, calculate, investigate, prove, show, describe, estimate, sketch, construct, expand, factorise, simplify.

PSPSMC, BRITISH VALUES AND DIVERSITY

Economic Wellbeing – Debt: How are prime factors keeping online transactions secure? Prevention of fraud.

Economic well-being – Debt and savings: Students are able to understand how banks and lenders work and the impact of interest rates. Also, impact of depreciation on cars and machinery.

Cultural – Students appreciate that very large and small numbers can be written in a universal form.

Citizenship/Cultural – Currency conversions: functional maths related to holidays abroad. Implication of inflation rates and economic stability.

British Values – Students are encouraged to reflect on learning and take responsibility for their behaviour. Students are encouraged to respect their peers. Through teacher/self and peer feedback, students develop their self-confidence and self-esteem.

Economic Wellbeing – using graphs to work out when certain companies are better value.

Social – interpretation of real-life graphs: trends and comparisons.

Personal – students are given a 'personal learning checklist following each practice paper and asked to reflect on their progress, identifying their areas of development to focus independent revision.

Citizenship/ Cultural – Why do we have different units for measurement? Where did they come from? Constructions are useful for a range of jobs including engineering, architecture and town planning.

British Values – Students are encouraged to reflect on learning and take responsibility for their behaviour. Students are encouraged to respect their peers. Through teacher/self and peer feedback, students develop their self-confidence and self-esteem.

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