

**Subject: Maths      Year 7      Ability Mixed**

Half Term 1 / weeks	Half-term 1 (1 week)	Half-term 1 (2 weeks)	Half-term 1 (1 weeks)	Half-term 1 (2 weeks)
<b>Topic</b>	Introduction lessons: History maths	Unit 1: Place value and base ten	Unit 2: Addition and subtraction	Unit 3: Arithmetic with decimals
<b>Topic overview</b>	To adapt knowledge of the place value number system and link to number systems in other cultures	To understand the value of numbers and apply this to skills such as rounding	To use different strategies to add and subtract integers linking to work with 2D shapes	To perform basic arithmetic with calculations that include decimals
<b>Half Term 2 / weeks</b>	<b>Half-term 2 (2-3 weeks)</b>	<b>Half-term 2 (2 weeks)</b>	<b>Half-term 2 (1 week)</b>	
<b>Topic</b>	Unit 4: Multiplication and division methods	Unit 5: Multiplication and division with decimals	Reteach and Retention	
<b>Topic overview</b>	To recall multiplication and division strategies and apply these to a variety of mathematical problems	To recall multiplication and division strategies and adapt these to decimal calculations	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed	
<b>Half Term 3 / weeks</b>	<b>Half-term 2 (1-2 weeks)</b>	<b>Half-term 2 (2 weeks)</b>	<b>Half-term 2 (2 weeks)</b>	
<b>Topic</b>	Unit 6: Units of measurement	Unit 7: Angle and angle properties on straight lines	Unit 8: Triangle and quadrilaterals angles	
<b>Topic overview</b>	An introduction to units of measurement and recognise different units of measurement and convert between them	Students will understand angle properties on straight lines (and parallel lines) and calculate missing angles	Students will understand angle properties within triangles and quadrilaterals	
<b>Half Term 4 / weeks</b>	<b>Half-term 4 (2 weeks)</b>	<b>Half-term 4 (2 weeks)</b>	<b>Half-term 4 (2 weeks)</b>	<b>(1 week)</b>
<b>Topic</b>	Unit 9: Understand and use fraction notation	Unit 10: Fraction of an amount	Unit 11: Calculations with fractions	Reteach and Retention
<b>Topic overview</b>	An introduction to fraction notation and converting between fractions, decimals and percentages.	To use fraction notation to help calculate quantities of amounts	To understand and use the four operations with fractions	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 5 / weeks</b>	<b>Half-term 5 (2 weeks)</b>	<b>Half-term 5 (3 weeks)</b>	<b>(1 week)</b>	
<b>Topic</b>	Unit 12: Order of operations	Unit 13: Introduction to algebra	Reteach and Retention	
<b>Topic overview</b>	Students knowledge of Order of operations is tested and re-enforced for the first time at TCA	To introduce the key skills of algebra in context with particular focus on gathering like terms and expanding	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed	
<b>Half Term 6 / weeks</b>	Half-term 6 (2 weeks)	Half-term 6 (2 weeks)	<b>(1 week)</b>	
<b>Topic</b>	Unit 14: Percentages	Unit 15: Handling data	Reteach and Retention	

<b>Topic overview</b>	Students will link prior knowledge of fractions to be able to calculate with percentages	Students will explore different types of data and will be able to use and understand a range data handling skills	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
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**Subject:** Maths      **Year** 8      **Ability** Mixed

Half Term 1 / weeks	Week 1-3		Week 4-6				
<b>Topic</b>	Unit 1- Factors, Multiples and Primes		Unit 2- Fractions		Reteach and Retention		
Topic overview	To recall knowledge on multiples, factors and primes and to apply number skills to real world contexts such as HCF and LCM		To be able to perform all operations with calculations that include fractions.		Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed		
<b>Half Term 2 / weeks</b>	Week 1-2		Week 3-6				
<b>Topic</b>	Unit 3 – Negative Numbers		Unit 4 – Algebra and Sequences		Reteach and Retention		
Topic overview	To compare and complete operations and solve problems with negative numbers		Introduction (or recap) of key algebra skills and sequences using these skills to solve problems.		Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed		
<b>Half Term 3 / weeks</b>	Week 1-2		Week 3-6				
<b>Topic</b>	Unit 5 – 2D Geometry		Unit 6 – Length and Area		Reteach and Retention		
Topic overview	To develop knowledge of 2D shapes and angles and area.		To recall and develop perimeter and area of 2D shapes.		Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed		
<b>Half Term 4 / weeks</b>	Week 1-2		Week 3-4		Week 4-5		
<b>Topic</b>	Unit 7 – Percentages		Unit 8 – Ratio		Unit 8b – Compound Measure	Reteach and Retention	
Topic overview	Consolidation of percentage skills from year 7 with the addition of using a calculator method, comparing quantities using percentages, reverse percentages and problem solving.		Students are introduced and are able to use ratio notation.		Students investigate the relationship between distance, time and speed.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed	
<b>Half Term 5 / weeks</b>	Week 1		Week 2-3		Week 4-5	Week 5-6	
<b>Topic</b>	Unit 9 – Rounding		Unit 10 – Circumference and the area of a circle		Unit 11: 3D shapes and nets	Unit 12: Surface area and volume	Reteach and Retention
Topic overview	To understand the meaning of an answer in “context” and to be able to see if this answer is of suitable magnitude and accuracy.		Understand the main components of a circle, introduction of pi and be able to find the area and circumference of a circle.		To understand 2D and 3D shapes, their properties and draw nets.	To find surface area and volume of 3D shapes and understand what these represent.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 6 / weeks</b>	Week 1		Week 2-3				

<b>Topic</b>	Unit 13 - Statistics	Unit 14 – Pythagoras.	Reteach and Retention
Topic overview	Learn to investigate and calculate different averages and apply this to different types of data.	To recall and use Pythagoras’ theorem in a range of contexts for different styles of questions before extending these questions to include trig.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

**Subject: Maths**                      **Year 9**                      **Ability Foundation**

**Half Term 1 / weeks**                      **Week 1-3**                      **Week 4-6**

<b>Topic</b>	Unit 1- Number, indices, HCF and LCM	Unit 2- Areas of 2D shapes, circles, surface area and volume	Reteach and Retention
Topic overview	To recall and apply number skills including negatives, powers and roots applying them to real world contexts such as HCF and LCM	To recall and apply a range of formulae with respect to shapes correctly substituting values leading to appropriate answers.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

**Half Term 2 / weeks**                      **Week 1-2**                      **Week 3-4**                      **Week 5-6**

<b>Topic</b>	Index Laws, Expanding and Factorising Unit 3	Rounding and Estimation Unit 4	Substitution and solving equations Unit 5	Reteach and Retention
Topic overview	To introduce the key skills of algebra in context with particular focus on expanding and factorising.	To understand the meaning of an answer in “context” and to be able to see if this answer is of suitable magnitude and accuracy	To be able to substitute values into a formula or expression to find unknown values and to be able to solve simple equations that use the basic operations.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

**Half Term 3 / weeks**                      **Week 1-3**                      **Week 4-6**

<b>Topic</b>	Unit 6 - Sampling and Averages	Unit 7 - Fractions	Reteach and Retention
Topic overview	To use and understand the different averages available in maths understanding their strengths and understanding spread of data	To understand and use the four operations with fractions and then use these in context.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

**Half Term 4 and 5 / weeks**                      **Week 1-2**                      **Week 3**                      **Week 4-5**                      **Week 6-8**

<b>Topic</b>	Unit 8 - Angle Properties	Unit 9 - Sequences	Unit 10 – Handling Data	Extra – Problem Solving and Finance Module	Reteach and Retention
Topic overview	To be able to find missing angles in a series of scenarios through calculation understanding the importance of communicating reasons used	Students should be able identify sequences and the rules they work to.	Students should be able to use and understand a range data handling skill.	To understand maths in context within finance and how these impact in real life.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

**Half Term 6 / weeks**                      **Week 1-3**                      **Week 4-6**

<b>Topic</b>	Unit 11 – Straight Line	Unit 12 - Probability	Reteach and Retention
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Topic overview	To draw and understand straight line graphs understanding and using $y=mx+c$	To use the idea of simple probability in context of multiple step problems that would require representation through tree diagrams	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
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**Subject: Maths**      **Year 9**      **Ability Higher**

<b>Half Term 1 / weeks</b>	<b>Week 1-2</b>	<b>Week 3-6</b>	
<b>Topic</b>	Unit 1- Integers, Powers and Roots	Unit 2- Area of 2D shapes, circles, surface area and volume	Reteach and Retention
Topic overview	To recall and apply number skills including negatives, powers and roots applying them to real world contexts such as HCF and LCM	To recall and apply a range of formulae with respect to shapes correctly substituting values leading to appropriate answers.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

<b>Half Term 2 / weeks</b>	<b>Week 1-2</b>	<b>Week 3-4</b>	<b>Week 5</b>	
<b>Topic</b>	Index Laws, Expanding and Factorising Unit 3	Rounding and Estimation Unit 4	Substitution and solving equations Unit 5	Reteach and Retention
Topic overview	To start to see and use the key skills of algebra in context with particular focus on expanding and factorising.	To understand the meaning of an answer in "context" and to be able to see if this answer is of suitable magnitude and accuracy	To be able to substitute values into a formula or expression to find unknown values and to be able to solve simple equations that use the basic operations.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

<b>Half Term 3 / weeks</b>	<b>Week 1-3</b>	<b>Week 4-5</b>	<b>Week 6</b>	
<b>Topic</b>	Unit 6 – Sampling and Averages	Unit 7 - Fractions	Extra Unit – Standard Form	Reteach and Retention
Topic overview	To use and understand the different averages available in maths understanding their strengths and understanding spread of data	To understand and use the four operations with fractions and then use these in context.	The first introduction to standard form, using the notation to write big or small numbers understanding the notation this creates.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

<b>Half Term 4 and 5 / weeks</b>	<b>Week 1-2</b>	<b>Week 3</b>	<b>Week 4-5</b>	<b>Week 6-8</b>	
<b>Topic</b>	Unit 8 – Angle Properties	Unit 9 - Sequences	Unit 10 – Handling Data	Extra Unit – Problem Solving and Finance	Reteach and Retention
Topic overview	To be able to find missing angles in a series of scenarios through calculation understanding the importance of communicating reasons used	Students should be able identify sequences and the rules they work to.	Students should be able to use and understand a range data handling skill.	To understand maths in context within finance and how these impact in real life.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

**Half Term 6 / weeks**      **Week 1-3**      **Week 4-6**

Topic	Unit 11 - Straight line graphs	Unit 12 - Probability	Reteach and Retention
Topic overview	To draw and understand straight line graphs understanding and using $y=mx+c$	To use the idea of simple probability in context of multiple step problems that would require representation through tree diagrams	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

**Subject: Maths**      **Year 10**      **Ability Foundation**

Half Term 1 / weeks	Week 1-2	Week 3-5	Week 6	
<b>Topic</b>	Unit 13 - Ratio And proportion	Unit 14 - Congruence and transformations	Unit 15 - Indices and surds	Reteach and Retention
Topic overview	To understand and use ratio in a range of context. To find and use percentages including percentage change.	To use and identify transformations and extend this knowledge into similar shapes.	To use the laws of indices in a range of problems and difficulty. To use and understand surds in maths and how this can be helpful for accuracy.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 2 / weeks</b>	Week 1-2	Week 3-4	Week 5-6	
<b>Topic</b>	Unit 16 - Formula, Equations and Identity	Unit 17 - Pythagoras	Unit 18 - Calculations	Reteach and Retention
Topic overview	To recall algebra skills building into changing the subject and substituting a range of values.	To recall and use Pythagoras' theorem in a range of contexts for different styles of questions	To understand the use and limitations of calculators and the impact of rounding on answers including estimation	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 3 / weeks</b>	Week 1-2	Week 3-4	Week 5-6	
<b>Topic</b>	Unit 19 - Expanding and factorising	Unit 20 - Bearings and constructions	Unit 21 - Quadratics	Reteach and Retention
Topic overview	To recall and use basic algebra skills including expanding and factorising with a focus on problem solving.	To understand how mathematical constructions are used to improve accuracy and how these skills can be used in modelling of the real world.	To recall linear equation work and apply this to a quadratic setting understanding the link between equations and graphs.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 4 / weeks</b>	Week 1-2	Week 3-4	Week 5	
<b>Topic</b>	Unit 22 Data handling	Unit 23 Inequalities	Unit 24 – Standard Form	Reteach and Retention
Topic overview	To recall and recap more basic charts and diagrams before adapting this knowledge to include more complicated diagrams	To recall the knowledge gained when handling and solving equations and extend this into inequalities including diagrammatically.	The first introduction to standard form, using the notation to write big or small numbers understanding the notation this creates.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 5 / weeks</b>	Week 1-2	Week 3-4	Week 5-6	
<b>Topic</b>	Unit 25 – Quadratic and cubic graphs	Unit 26 – Unit conversions and harder 3D problems	Unit 27 – Percentage problems and interest	Reteach and Retention
Topic overview	Students should be able to create coordinate points and plot both quadratic and cubic graphs	To find the volume and surface area of 3D shapes before using this to complete density questions. Finally using the skills of scale factors and the use of LAV to convert units.	To recall and use percentage multipliers in the context of interest questions both simple and compound.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed

Half Term 6 / weeks	Week 1-2	Week 3-4	Week 5	Week 6	
<b>Topic</b>	Unit 28 – Circles	Unit 29 – Direct Proportion and Ratio	Unit 30 – Vectors	Unit 31 – Tree Diagrams	Reteach and Retention
Topic overview	To handle all aspects of circle based areas and volume questions	To apply earlier ratio and proportion skills in context allowing amounts to be changed given ratios including currencies.	To use and understand vectors including basic proof	To draw and use tree diagrams to find and identify probabilities of events	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Subject:</b>	<b>Maths</b>	<b>Year 10</b>	<b>Ability</b>	<b>Higher</b>	

Half Term 1 / weeks	Week 1-2	Week 3-5	Week 6	
<b>Topic</b>	Unit 13 - Ratio and Proportion	Unit 14 - Transformations	Unit 15 - Indices and surds	Reteach and Retention
Topic overview	To understand and use ratio in a range of context. To find and use percentages including percentage change.	To use and identify transformations and extend this knowledge into similar shapes.	To use the laws of indices in a range of problems and difficulty. To use and understand surds in maths and how this can be helpful for accuracy.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 2 / weeks</b>	Week 1-2	Week 3-4	Week 5-6	
<b>Topic</b>	Unit 16 – Formula, Equations and Identity	Unit 17 – Pythagoras	Unit 18 – Solving Equations	Reteach and Retention
Topic overview	To recall algebra skills building into changing the subject including factorisations. To understand and use mathematical proof including recurring decimals	To recall and use Pythagoras’ theorem in a range of contexts for different styles of questions before extending these questions to include trig.	To recall algebraic manipulation but now to use it in the context of fractions. Use these and simpler skills to solve linear simultaneous equation before using them again within the iterative method.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 3 / weeks</b>	Week 1-2	Week 3-4	Week 5-6	
<b>Topic</b>	Unit 19 - Circle theorems	Unit 20 - Bearings and constructions	Unit 21 - Quadratics	Reteach and Retention
Topic overview	To recall and apply angle skills including in proof, applying them to circle theorems and then applying these theorems further.	To understand how mathematical constructions are used to improve accuracy and how these skills can be used in modelling of the real world.	To recall linear equation work and apply this to a quadratic setting understanding the link between equations and graphs.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 4 / weeks</b>	Week 1-2	Week 3-4	Week 5-6	
<b>Topic</b>	Unit 22 Data handling	Unit 23 Inequalities	Unit 24 sine and cosine rules, 3D trig	Reteach and Retention
Topic overview	To recall and recap more basic charts and diagrams before adapting this knowledge to include more complicated diagrams including interpretations	To recall the knowledge gained when handling and solving equations and extend this into inequalities including diagrammatically.	To recall and use the trig ratios in 3D and introduce the sine and cosine rules including area of triangles using sine.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 5 / weeks</b>	Week 1-2	Week 3-4	Week 5-6	
<b>Topic</b>	Unit 25 – Simultaneous quadratics and graphs of functions	Unit 26 – converting units and harder areas	Unit 27 – Percentage problems and interest	Reteach and Retention

Topic overview	Students should be able to create coordinate points and plot both quadratic and cubic graphs and solve quadratics simultaneous equations both algebraically and graphically.	To find the area/volume and surface area of harder 2D and 3D shapes before using this to complete density questions. Finally using the skills of scale factors and the use of LAV to convert units.	To recall and use percentage multipliers in the context of interest questions both simple and compound.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
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**Half Term 6 / weeks**                      **Week 1-2**                      **Week 3-4**                      **Week 5**                      **Week 6**

<b>Topic</b>	Unit 28 – Complex Volume and Surface Area	Unit 29 – Direct Proportion and Ratio	Unit 30 – Vectors	Unit 31 – Tree Diagrams	Reteach and Retention
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Topic overview	To understand and know how to find the volume and surface area of complex and compound shapes.	To apply earlier ratio and proportion skills in context allowing amounts to be changed given ratios including currencies.	To use and understand vectors including proof for linear and parallel vectors including ratios and midpoints	To draw and use tree diagrams to find and identify probabilities of events	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
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**Subject: Maths**                      **Year 11**                      **Ability Foundation**

**Half Term 1 / weeks**                      **Week 1-2**                      **Week 3-4**                      **Week 5-6**

<b>Topic</b>	Unit 32 - Straight line graphs	Unit 33 - Surds	Unit 34 - Sequences	Reteach and Retention
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Topic overview	To draw and understand straight line graphs understanding and using $y=mx+c$	To use and understand surds in maths and how this can be helpful for accuracy.	Students should be able identify sequences and the rules they work to.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
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**Half Term 2 / weeks**                      **Week 1-2**                      **Week 3-4**                      **Week 5-6**

<b>Topic</b>	Unit 35 - Trigonometry	Unit 36 – Sets and Venn Diagrams	Unit 37 – Simultaneous Equations	Reteach and Retention
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Topic overview	To recall and use Pythagoras’ theorem in a range of contexts for different styles of questions before extending these questions to include trig.	To recall probability skills in the context of Venn diagrams both requiring population and provided.	Use skills to solve linear simultaneous including worded situations.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
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**Half Term 3-5 / weeks**                      **Remaining weeks**

<b>Topic</b>	Reteach and Retention
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Topic overview	Focus on the process of reteach and retention, knitting together the learning in preparation for examination
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**Subject: Maths**                      **Year 11**                      **Ability Higher**

**Half Term 1 / weeks**                      **Week 1-2**                      **Week 3-4**                      **Week 5-6**

<b>Topic</b>	Unit 32 - Function notation	Unit 33 - Time series graphs	Unit 34 - Sequences	Reteach and Retention
Topic overview	To use and understanding function notation, both numerically and algebraically	Students should be able to use and understand a time series graphs and calculations associated with them.	Students should be able identify sequences and the rules they work to.	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 2 / weeks</b>	Week 1	Week 2-3	Week 4-6	
<b>Topic</b>	Unit 35 - Trig Graphs	Unit 36 - Sets and Venn Diagrams	Unit 37 – Equations of Circles	Reteach and Retention
Topic overview	To recall and apply trig skills graphically. Using these to find and ratify unknown values.	To recall probability skills in the context of Venn diagrams both requiring population and provided.	To recall and apply straight line skills including gradients, applying them to circle contexts including intersections	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
<b>Half Term 3-5 / weeks</b>	<b>Remaining weeks</b>			
<b>Topic</b>	Reteach and Retention			
Topic overview				Focus on the process of reteach and retention, knitting together the learning in preparation for examination