## **KEY STAGE 3 MATHEMATICS CURRICULUM**

## **OVERVIEW**



Year / Term		Autumn		Spring		Summer			
		1 <sup>st</sup> Half	2 <sup>nd</sup> Half	1 <sup>st</sup> Half	2 <sup>nd</sup> Half	1 <sup>st</sup> Half	2 <sup>nd</sup> Half		
7	A	1.Maths in context	3. Measures and Conversions	5. Fractions, Decimals, %	7.Understanding Graphs	9.Understanding 2D Shapes	11. Equations and Formulae		
	В	2. Maths in context	<u>4. Whole</u> <u>Numbers</u>	6. Manipulating Expressions	8. Area and Perimeter	10. Prop- ortionality	12. Symmetry		
8	A	13. Visualising Data	<u>15. Solving</u> <u>Equations</u>	17. Probability	19. Ratio	21. Graphing Equations	23. Transformations		
	В	14. Numerical Calculations	<u>16. Angle</u> <u>Reasoning</u>	18. Real Life Graphs	20.Understand- ing 3D Shapes	22. Percentage Change	24. Rearranging Equations		
9	А	25. Patterns & Sequences	27. Pythagoras & Trigonometry	29. Powers and Roots	31. Calculations with 3D Shapes	GCSE Curriculum	GCSE Curriculum		
	В	26. Constructions	28. Combined Events	30. Bearings and Scale	32. Interpreting Data	GCSE Curriculum	GCSE Curriculum		

Number Geometry
Algebra Data

**Structure** 



### THE CONCEPT

- A mastery curriculum whereby students study each topic in depth and don't move on until the skills have been properly learnt and applied.
- Embeds problem solving (PG), contextual maths (RME), real life maths, addressing misconceptions (EEDI/Diagnostic Questions) and mastery recall (NCETM) into the curriculum whilst providing textbook support to ensure a balanced sequence of learning.
- Includes skills / applications / extension for each topic, so that a student's progress is unrestricted.
- Ensures that topics are built on each year, both consolidating and extending skills as a student progresses through key stage 3.

### **FOR THE STUDENTS**

- Combines a mixture of topics throughout the year keeping the curriculum engaging and capturing interest
- Is the same curriculum for all students in all classes. They progress as far they can, ensuring that each skill is properly learnt
- The curriculum is available online and includes video skills and practice questions any student can catch up with missed work on their own.

### **FOR THE TEACHERS**

- Provides a sequence of 10 lessons each half term so that (depending on the set) all teachers follow the same learning objectives
- All students are expected to cover "Understanding" and "Skills". Move onto application and extension only if the earlier topics are mastered
- Links the lesson to the respective textbook or resource so that the learning objective is clear
- Ensures that each learning objective is assessed so that misconceptions can be addressed or followed up on later

# KEY STAGE 3 MATHEMATICS CURRICULUM – Starters, recall, sequencing and additional material





Year /		Autumn		Spring		Summer	
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7	А	1.Maths in context	3. Measures and Conversions	5. Fractions, Decimals, %	7.Understanding Graphs	9.Understanding 2D Shapes	11. Equations and Formulae
	Starter	Mixed questions	NCETM "Place Value"	Skills from last terms topic test	NCETM "Fractions"	Skills from last terms topic test	NCETM "Perimeter and Area"
	Follows From	Key Stage 2	Key Stage 2	RME 02 Fractions	Key Stage 2	8. Area and Perimeter	6. Manipulating Expressions
	Follows to	Key Stage 3	8: Perimeter and Area	10. Proportionality	14. Real Life Graphs	12. Symmetry 16. Angle Reasoning 26. Constructions	15. Solving Equations
	Addtnl Material	RME Resources 01 Area 06 Counting	-	PS3 Bar modelling	-	PS2 Using pictures	PS4 Using x for an unknown
	В	2. Maths in context	4. Whole Numbers	6. Manipulating Expressions	8. Area and Perimeter	10. Prop- ortionality	12. Symmetry
	Starter	Mixed questions	General Numeracy	NCETM "Properties of number"	Exam style questions	NCETM "Integers and Decimals"	Mixed questions
	Follows From	Key Stage 2	RME 06 Counting	Key Stage 2	3. Measures and Conversions	5. Fractions, Decimals, %	9. Understanding 2D Shapes
	Follows to	Key Stage 3	18. Numerical Calculations	11. Equations and Formulae	20. Understanding 3D Shapes	19. Ratio	23. Transformations
	Addtnl Material	RME Resources 02 Fractions 05 Statistics	-	-	-	PS1 Using lists and tables	-

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8	A	13. Visualising Data	15. Solving Equations	17. Probability	19. Ratio	21. Graphing Equations	23. Transformations
	Starter	NCETM "Expressions and Equations"	Mixed questions	Skills from last terms topic test	Exam style questions	Checking skills on Measures, Area, Perimeter (3, 8)	Checking skills on Angles (12, 16)
	Follows From	RME 05 Statistics	11. Equations and Formulae	5. Fractions, Decimals, %	10. Proportionality	15. Solving Equations	12. Symmetry
	Follows to	32. Interpreting Data	21. Graphing Eqns 24. Sequences	28. Combined Events	Key Stage 4	24. Rearranging Equations	Key Stage 4
	Addtnl Material	PS5 Using a strategy	-	-	Real Life Maths Fractions Ratio Percentages	-	
	В	14. Numerical Calculations	16. Angle Reasoning	18. Real Life Graphs	20.Understand- ing 3D Shapes	22. Percentage Change	24. Rearranging Equations
	Starter	NCETM "Plotting Co-ordinates	Exam style questions	Checking skills on expressions (6)	Mixed questions	Skills from last terms topic test	Checking skills on Data and Probability (13, 17)
	Follows From	4. Whole Numbers	9. Understanding 3D Shapes	7. Understanding Graphs	9. Understanding 2D Shapes		15. Solving Equations
	Follows to	29. Powers and Roots	30. Bearings and Scale	21. Graphing Equations	31. Calculations with 3D Shapes		Key Stage 4
	Addtnl Material	-	-	Real Life Maths Linear Graphs	-	Real Life Maths Multiplicative Reasoning	Real Life Maths Algebra

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	А	25. Patterns & Sequences	27. Pythagoras & Trigonometry	29. Powers and Roots	31. Calculations with 3D Shapes	GCSE Curriculum	GCSE Curriculum
	Starter	Exam style questions	Checking skills on ratio (19) / proportionality (10)	Skills from last terms topics test	Checking Skills on Numeracy (4/19)		
	Follows From	15. Solving Equations	9. Understanding 2D Shapes	14. Numerical Calculations	20. Understanding 3D Shapes		
	Follows to	Key Stage 4	30. Pythagoras and Trigonometry	Key Stage 4	Key Stage 4		
9	Addtnl Material				-		
	В	26. Constructions	28. Combined Events	30. Bearings and Scale	32. Interpreting Data	GCSE Curriculum	GCSE Curriculum
	Starter	Skills from last terms topic test	Checking skills on equations (14/24)	Exam style questions	Checking Skills on Fractions (5) and Percentages (22)		
	Follows From	16. Angle Reasoning	17. Probability	16. Angle Reasoning 26. Constructions	17. Probability		
	Follows to	Key Stage 4	Key Stage 4	Key Stage 4	Key Stage 4		
	Addtnl Material				Real Life Maths Data		