

MATHS Curriculum and Assessment Map 2018-2019 Stage 7

Stage 7	Curriculum content/unit	Method of assessment	Content assessed	Source of assessment	Method for grade boundaries
Aut 1	<p>Numbers and the number system (12 HOURS) Calculating (16 HOURS)</p>	<p>7M1 BAM 7M2 BAM</p>	<p>Use positive integer powers and associated real roots</p> <ul style="list-style-type: none"> know the meaning of power notation know the meaning of notation for square roots and cube roots calculate with powers and roots without a calculator use a scientific calculator to work out powers and roots write the value of square (and cube) roots when the solution is not an integer <p>Apply the four operations with decimal numbers</p> <ul style="list-style-type: none"> add decimals subtract decimals multiply decimals divide a whole number by a decimal divide a decimal by a decimal 	<p style="text-align: center;">GCSE papers and pixl maths Kangaroo math BAM 'build a mathematician' indicators Kangaroo maths assessment package</p>	<p style="text-align: center;">Percentage to BAM tests scale <30 =0, 30-<60 = 1, 60 – 100 = 2 relate to individual stage grade key</p>
Aut 2	<p>Checking, approximating and estimating (3 HOURS) Counting and comparing (9HOURS)</p> <p>Visualising and constructing (4 HOURS)</p>	<p>7M6 BAM 7M13 BAM END OF TERM ASSESSMENT</p>	<p>Check calculations using approximation, estimation or inverse operations</p> <ul style="list-style-type: none"> approximate numbers by rounding to the nearest 10, 100, 1000 approximate by rounding to any number of decimal places approximate by rounding to the first significant figure in any number understand estimating as the process of finding a rough value of a calculation estimate calculations by rounding numbers to one significant figure use inverse operations to check solutions to calculations <p>Understand and use geometric notation for labelling angles, lengths, equal lengths and parallel lines</p> <ul style="list-style-type: none"> recognise and can use the notation for parallel lines recognise and can use the notation for labelling lengths recognise and can use the notation for equal lengths recognise and can use the notation for labelling angle 		
Spr 1	<p>Investigating properties of shapes (5 HOURS) Algebraic proficiency: tinkering (8 HOURS) Exploring fractions, decimals and percentages (4 HOURS) Proportional reasoning (4 HOURS)</p>	<p>7M7 BAM 7M8 BAM 7M9 BAM 7M3 BAM</p>	<p>Simplify and manipulate expressions by collecting like terms</p> <ul style="list-style-type: none"> know the meaning of the word 'variable' know the meaning of the word 'term' know the meaning of the word 'expression' identify like terms identify like terms in more complex cases simplify expressions by adding like terms simplify expressions by adding and subtracting like terms create expressions <p>Simplify and manipulate expressions by multiplying a single term over a bracket</p> <ul style="list-style-type: none"> multiply a single term over a bracket use powers to write the result of squaring a variable make connections between patterns and expressions construct simple expressions involving brackets <p>Substitute numbers into formulae</p> <ul style="list-style-type: none"> substitute numbers into a simple formula substitute numbers into a simple formula involving division 		

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			<ul style="list-style-type: none"> • substitute numbers into a simple formula involving squaring • create a simple formula from given information <p>Write a quantity as a fraction or percentage of another</p> <ul style="list-style-type: none"> • write one amount as a fraction of another • write a fraction in its lowest terms • find a fraction equivalent to another • write one amount as a percentage of another • convert between units when writing one amount as a fraction of another 		
Spr 2	<p>Pattern sniffing (7 HOURS)</p> <p>Measuring space (3HOURS)</p> <p>Investigating angles (3 HOURS)</p> <p>Calculating fractions, decimals and percentages (5 HOURS)</p>	7M4 BAM END OF TERM ASSESSMENT	<p>Use multiplicative reasoning to interpret percentage change</p> <ul style="list-style-type: none"> • use a multiplier to find a percentage of an amount • identify a multiplier to increase an amount by a percentage • use a multiplier to increase an amount by a percentage • identify a multiplier to decrease an amount by a percentage • use a multiplier to decrease an amount by a percentage • find a multiplier when the original and the new amount are known • state a percentage change when the multiplier is known 		
Sum 1	<p>Calculating fractions, decimals and percentages (10 HOURS)</p> <p>Solving equations and inequalities (5 HOURS)</p> <p>Calculating space (5 HOURS)</p>	7M5 BAM 7M10 BAM 7M12 BAM	<p>Add, subtract, multiply and divide with fractions and mixed numbers</p> <ul style="list-style-type: none"> • add mixed numbers • subtract mixed numbers • multiply a whole number by a fraction • multiply fractions • multiply mixed numbers • divide a whole number by a fraction • divide a fraction by a fraction <p>Solve linear equations in one unknown</p> <ul style="list-style-type: none"> • know how to solve an equation by balancing both sides • solve a one step equation • solve a two step equation • solve a three step equation • know how to deal with fractions as solutions • construct an equation from given information <p>Calculate surface area of cubes and cuboids</p> <ul style="list-style-type: none"> • visualise the surfaces of a cuboid • use the formula for the area of a rectangle • find the surface area of a cuboid when the three dimensions are known • use the surface area of a cuboid to find a missing dimension in a cuboid • state the correct units for a solution to a problem 		
Sum 2	<p>Mathematical movement (7 HOURS)</p> <p>Presentation of data (6 HOURS)</p> <p>Measuring data (7 HOURS)</p>	7M11 BAM END OF YEAR ASSESSMENT	<p>Understand and use lines parallel to the axes, $y = x$ and $y = -x$</p> <ul style="list-style-type: none"> • plot the graphs of lines parallel to the axes • plot the graph of $y = x$ • plot the graph of $y = -x$ • name graphs of lines parallel to the axes • recognise the graph of $y = x$ • I recognise the graph of $Y = -x$ 		

