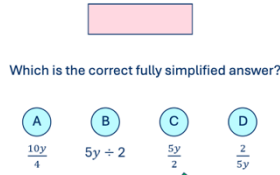
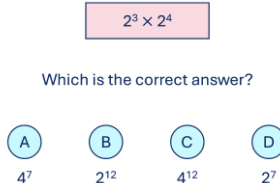
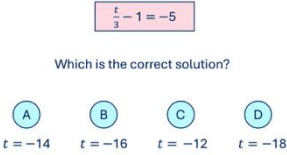
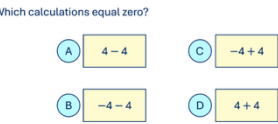
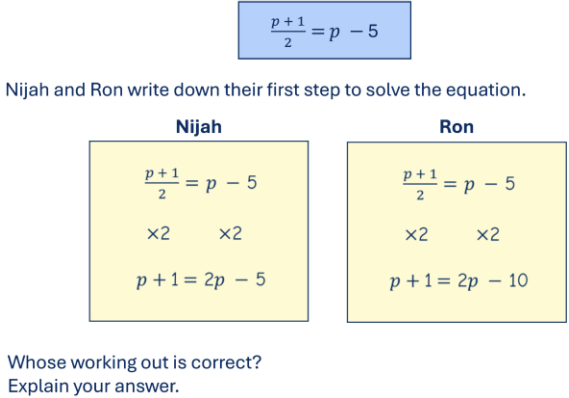


Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 1 (Thurs & Fri) - ORIENTATION & EXPECTATIONS						
Week 2 Lesson 1 To substitute into expressions Step 1	Expression Variable Formula Substitute	ALGEBRA	Direct proportion Probability Solving equations Factors	I will be able to: Substitute into expressions.	Slide 11 Here are some expression cards. A $\frac{j}{k} - m$ B $j - \frac{m}{k}$ C $\frac{j-m}{k}$ Which expressions require a division before a subtraction?	Slide 23 Here is a formula to work out velocity. $v = u + at$ A car is travelling with an initial velocity (u) of 10 m/s. The car then accelerates (a) at 5 m/s ² for 4 seconds (t). Use the formula to work out the velocity (v) of the car after 4 seconds.
Week 2 Lesson 2 To collect like terms. Step 2	Like terms Unlike terms Expression Coefficient	ALGEBRA	Substitute Probability Hypotenuse Product of prime factors	I will be able to: - Identify like terms - collect like terms.	Slide 10 $9c$ Which of the terms are like $9c$? A $-7c$ B c^2 C $8c$ D $12cd$	Slide 20 Simplify the expressions by collecting like terms. a) $7f + 3f^2 - f + 2f^2$ c) $-t + 2t^2 + t^2 - t$ b) $j - 5jk + j - 2kj$ d) $4 + 7s^2 - 6 + 2s^2$

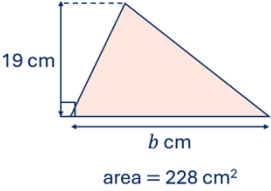
Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 2 Lesson 3 To simplify expressions Step 3	Like terms Unlike terms Simplify Coefficient	ALGEBRA	Collect like terms Relative frequency Pythagoras HCF	I will be able to: - Simplify expressions - Solve an equation by simplifying first	Slide 14 	Slide 23 Solve the equations. a) $3x + 5x = 24$ c) $\frac{45 \times z \times z}{5z} = 900$ b) $4y \times 5 = 240$ d) $\frac{4ab \times 3b}{6ab} = 14$
Week 2 Lesson 4 To use laws of indices. Step 4	Power Base Index Indices	NUMBER ALGEBRA	Simplify Expectation Pythagoras Venn interpretation	I will be able to: Use the addition and subtraction laws of indices	Slide 10 	Slide 20 Write each expression as a single power. a) $\frac{20y^4}{5y^9}$ c) $8h^3 \times 4h \div h^{-7}$ b) $\frac{6t^{-3} \times 4t^5}{8t^{-2}}$ d) $4d^6 \div 2d^{-1} \times d^{-10}$

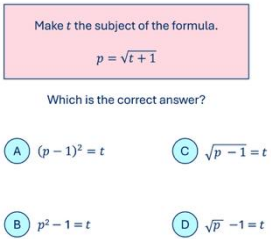
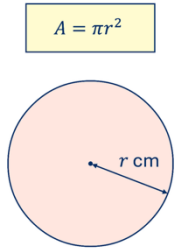
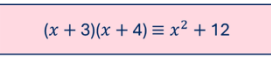
Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 3 Lesson 1 To use laws of indices Step 5	Power Base Index Indices	NUMBER ALGEBRA	Addition law Probability Pythagoras LCM	I will be able to: Simplify powers of powers for indices.	Slide 16 $(9^x)^{-6} = 9^{-54}$ Which is the correct value of x ? A 48 B 9 C -9 D -48	Slide 21 Work out $x + y + z$. $9 = 3^2$ $9^2 = 3^x$ $9^3 = 3^y$ $9^4 = 3^z$
Week 3 Lesson 2 To expand a single bracket Step 6	Expand Coefficient Expression Index	ALGEBRA	Power of power Substitute Pythagoras Integer	I will be able to: Expand a single bracket	Slide 22 Expand $x^2(x - 2)$ Which is the correct answer? A $x^3 + 2x^2$ B $x^3 - 2x^2$ C $x^3 - 2$ D $x^3 - 2x$	Slide 26 Expand the brackets. a) $\frac{1}{2}(4q + 12)$ c) $\frac{3}{4}(5t - 8)$ b) $\frac{1}{5}(4d + 5)$ d) $\frac{2}{3}h(2 - 5h)$

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 3 Lesson 3 To factorise. Into a single bracket Step 7	Factorise Coefficient HCF Index	ALGEBRA	Expand single bracket Simplify Substitute Increase by percentage.	I will be able to: factorise into a single bracket	Slide 10 $___(x + 2) \equiv 3x^2 + 6x$ Which is the correct missing value? A B C D $2x$ 3 $3x$ x^2	Slide 19 Factorise the expressions fully. a) $12x^2y + 15y$ c) $20ab^3 - 12a^2b$ b) $8m^2n - 6mn$ d) $15ef^2g + 9e^2f^2g^2$
Week 3 Lesson 4 Review and assessment task						
Week 4 Lesson 1 To solve equations Step 1	Equation Inverse Expression Unknown Solution	ALGEBRA	Factorise Simplify expression Table of values Percentage increase	I will be able to - use a bar model to solve an equation - solve equations using a balancing method	Slide 8 Which of the calculations are correct? a) $2 - 7 = 5$ c) $-1 + 2 = 1$ b) $-6 - 1 = -5$ d) $-20 \div 4 = -5$	Slide 25 Which of the calculations are correct? a) $2 - 7 = 5$ c) $-1 + 2 = 1$ b) $-6 - 1 = -5$ d) $-20 \div 4 = -5$

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 4 Lesson 2 To solve equations with fractions Step 2	Expression Unknown Solution	ALGEBRA	Solve equation Laws of indices Table of values Reverse percentage	I will be able to: solve equations with fractions	Slide 18 	Slide 22 Solve the equations. a) $\frac{2f}{3} - 3 = 1$ c) $\frac{2+4r}{5} = 6$ b) $\frac{2p+6}{3} = 12$ d) $32 = \frac{3t}{2} + 2$
Week 4 Lesson 3 To solve equations with unknowns on both sides Step 3	Expression Unknown Solution	ALGEBRA	Equation with fraction Power of power Substitute into quadratic Percentage score	I will be able to: solve equations with unknowns on both sides	Slide 8 	Slide 28 

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 4 Lesson 4 To understand inequalities Step 4	Integer Inequality Satisfy Compound inequality	ALGEBRA	Solve equation Expand single bracket Reciprocal graph Multiplier for percentage increase.	I will be able to understand inequalities	Slide 7 p is greater than or equal to 8 Which inequality represents the statement? A B C D $p < 8$ $p \leq 8$ $p > 8$ $p \geq 8$	Slide 26 Write the integer values which satisfy the inequalities. a) $-1 < x \leq 4$ c) $-1 < x < 4$ b) $-1 \leq x \leq 4$ d) $-1 \leq x < 4$
Week 5 Lesson 1 To solve inequalities Step 5	Integer Inequality Satisfy Solve	ALGEBRA	List integer set Factorise List elements of set Repeated percentage increase	I will be able to - solve inequalities using a balancing method - to understand the solution.	Slide 14 $\frac{y}{2} > 8$ Which values of y satisfy the inequality? A B C D $y > 4$ $y = 4$ $y > 16$ $y = 16$	Slide 24 Solve the inequalities. a) $2(f + 3) < 20$ c) $2(3k + 1) \leq 26$ b) $4(m - 5) > 24$ d) $74 \leq 2(5t - 3)$

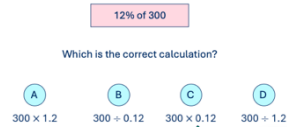
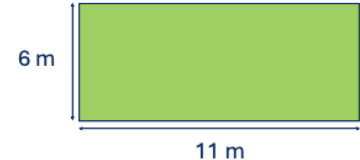
Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 5 Lesson 2 To change the subject of a formula Step 6	Formula Subject Rearrange	ALGEBRA	Solve inequality Solve equation with brackets. Interpret a venn diagram. Calculate interest.	I will be able to: - change the subject of a formula by using related facts in a bar model. - change the subject by using inverse operations.	Slide 11 $p + u = y$ What is the subject of the formula? A p B u C y	Slide 20 Make x the subject of the formulae. a) $2x - b = m$ c) $k = a + gx$ b) $tx + h = e$ d) $q = yx + 3n$
Week 5 Lesson 3 To change the subject of known formulae Step 7	Formula Subject Rearrange Variable	SHAPE, SPACE & MEASURES ALGEBRA	Change the subject. Solve equation with fraction. Interpret a venn diagram. Simple interest.	I will be able to - change the subject of formulae for area. - change the subject for area & circumference of circles.	Slide 19 Here is a formula to calculate the area of a trapezium. $A = \frac{1}{2}(a + b)h$ A $2A = (a + b)h$ C $2Ah = a + b$ B $\frac{2A}{h} + b = a$ D $2A - ah = bh$ Which of the rearrangements are correct?	Slide 18 Work out the value of b . $A = \frac{1}{2}bh$  19 cm b cm area = 228 cm²

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 5 Lesson 4 To change the subject of a complex formula Step 8 Extension	Formula Subject Rearrange Coefficient	ALGEBRA	Change the subject Solve equation Probability Compound interest	I will be able to change the subject of a complex formula.	Slide 20 	Slide 23 The circle has an area of 80 cm^2 . 
Week 6 Lesson 1 Review and assessment task						
Week 6 Lesson 2 To expand double brackets. Step 1	Quadratic Expand Term	ALGEBRA	Change the subject. Inequality on a number line. Sample space. Solve an equation.	I will be able to: - expand double brackets using a grid method. - simplify the quadratic expression	Slide 17 Is the statement true or false? 	Slide 26 Expand and simplify the expressions. a) $(2x + 3)(x + 1)$ a) $(p - 4)(5p + 2)$ a) $(3u + 5)(2u + 4)$

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 6 Lesson 3 To factorise quadratic expressions. Step 2	Sum Product Factorise	ALGEBRA	Expand double brackets. Solve inequality. Probability. Circumference of a circle.	I will be able to: factorise quadratic expressions with only positive terms.	Slide 9 Is the statement true or false? The product of 5 and 6 is 11	Slide 18 Factorise the expressions. a) $p^2 + 10p + 24$ b) $m^2 + 14m + 45$ c) $y^2 + 15y + 36$ d) $k^2 + 9k + 8$
Week 6 Lesson 4 To factorise quadratic expressions. Step 3	Variable Expression Quadratic Factorise	ALGEBRA	Factorise quadratic (positive terms) Change the subject. Expectation . Surface area of a cube.	I will be able to factorise any quadratic expression (positive and negative terms)	Slide 18 Nijah is factorising an expression. $x^2 - 3x - 28$ Nijah $(x - 4)(x + 7)$ -4 and 7 have a product of -28 Nijah Explain the mistake Nijah has made.	Slide 19 Match the equivalent expressions. $x^2 + 5x + 6$ $x^2 - 5x + 6$ $x^2 - 5x - 6$ $x^2 + 5x - 6$ $(x + 1)(x - 6)$ $(x + 2)(x + 3)$ $(x - 2)(x - 3)$ $(x - 1)(x + 6)$

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 7 Lesson 1 To find the difference of two squares Step 4 Extension	Variable Expression Quadratic Factorise	ALGEBRA	Factorise quadratic. Change the subject. Probability Surface area of prism.	I will be able to: find a difference of two squares.	Slide 17 Factorise $k^2 - 100$ Which is the correct answer? A $(k + 10)(k + 10)$ C $(k - 10)(k + 10)$ B $(k - 10)(k - 10)$ D $(k - 10)^2$	Slide 24 Which expressions are a difference of two squares? $49 - x^2$ $p^2 - 8$ $u^2 - 1$ $n^2 - 10n + 25$ $36y - 6$ $m^2 + 16$ $2x^2 - 32$ $81d^2 - 9$
Week 7 Lesson 2 To solve quadratic equations. Step 5	Solve Solution Product	ALGEBRA	Factorise quadratic. Change the subject. Interpret a venn diagram. Increase by a percentage.	I will be able to: solve quadratic equations equal to zero, when given in factorised form.	Slide 17 $(x + 3)(x - 4) = 0$ Which are the correct solutions? A $x = 3$ C $x = -4$ B $x = -3$ D $x = 4$	Slide 23 Solve the equations. a) $(2y - 4)(y + 1) = 0$ c) $(2t - 1)(3t + 4) = 0$ b) $(p - 6)(2p + 8) = 0$ d) $(5k + 5)(7k - 6) = 0$

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone																												
Week 7 Lesson 3 To solve quadratic equations by factorising first. Step 6	Factorise Solution Roots	ALGEBRA	Solve quadratic in factorised form. Expand double brackets Interpret a venn diagram. Volume of a cylinder.	I will be able to: To solve quadratic equations by factorising first.	Slide 16 Is the statement true or false? The solutions to the equation $x^2 - 7x + 10 = 0$ are both positive.	Slide 15 Solve the equations. a) $n^2 - 5n + 6 = 0$ b) $p^2 + 6p - 16 = 0$ c) $b^2 - 3b - 10 = 0$ d) $f^2 - 6f + 9 = 0$																												
Week 7 Lesson 4 To plot and draw quadratic graphs of the form $y = x^2 + a$	Quadratic Parabola Table of values.	ALGEBRA	Solve a quadratic. Factorise a quadratic. Interpret a venn diagram. Calculate the volume of a cone.	I will be able to: - Create a table of values for a given quadratic - Plot a quadratic of the form $y = x^2 + a$	Slide 14 $y = x^2 - 4$<table><tr><td></td><td>2</td><td>1</td><td>0</td><td>1</td><td>2</td></tr><tr><td></td><td>0</td><td></td><td>4</td><td>3</td><td>0</td></tr></table> Which is the missing value? A B C D -1 1 -5 -3		2	1	0	1	2		0		4	3	0	Slide 19 Plot the graph of $y = 2x^2 + 1$ for values of x from -3 to 3 <table><tr><td>x</td><td>-3</td><td>-2</td><td>-1</td><td>0</td><td>1</td><td>2</td><td>3</td></tr><tr><td>y</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr></table>	x	-3	-2	-1	0	1	2	3	y							
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Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone
Week 8 Lesson 1 Review and assessment task.						
Week 8 Lesson 2 To find a percentage of an amount. Step 1	Percentage Decimal number Whole Multiplier	NUMBER	Table of values. Factorise quadratic Substitution Solve inequality	I will be able to: - Find a percentage of an amount using a non-calculator method. - Use a multiplier to find a percentage of an amount.	Slide 25 	Slide 29 A garden is in the shape of a rectangle. Flowers grow in 36% of the garden. The rest of the garden is grass. Work out the area of the garden that is grass. 

Learning Intention	Vocab	Concept	Retrieval	Success Criteria	Hinge Questions	Red Zone						
Week 8 Lesson 3 To find percentage increase and decrease. Step 2	Percentage Multiplier Increase Decrease	NUMBER	Percentage of an amount. Difference of two squares. Collect like terms. Solve equation with brackets.	I will be able to: Use a multiplier to find a percentage increase or decrease.	Slide 16 Increase by 32% Which is the correct multiplier? A 0.32 B 0.68 C 1.32 D 1.032	Slide 23 The table shows information about ticket prices for an amusement park in winter. <table><tr><th>Type of ticket</th><th>Ticket price</th></tr><tr><td>Adult</td><td>£22</td></tr><tr><td>Child</td><td>£16</td></tr></table> In summer, the amusement park increases the prices by 20% Calculate the cost for 2 adults and 2 children to visit in summer.  Mo I need to increase the individual prices by 20% before finding the total.  Nijah I need to find the total first, then increase that by 20% Who do you agree with? Explain your answer.	Type of ticket	Ticket price	Adult	£22	Child	£16
Type of ticket	Ticket price											
Adult	£22											
Child	£16											
Week 8 Lesson 4 Review and recap.												