Number of lessons (between 6&8)	**Content of the unit**	**Assumed prior learning** (tested at the beginning of the unit)
13	• Solve linear equations with the unknown on both sides of the equation • Find approximate solutions to linear equations using a graph	• Choose the required inverse operation when solving an equation • Solve linear equations by balancing when the solution is a whole number or a fraction
Assessment points and tasks	**Written feedback points**	**Learning Outcomes (tested at the end and related to subject competences)**
• Show me an (one-step, two-step) equation with a solution of -8 (negative, fractional solution). And another. And another ... • Show me a two-step equation that is 'easy' to solve. And another. And another ... • What's the same, what's different: $2x + 7 = 25$, $3x + 7 = x + 25$, $x + 7 = 7 - x$, $4x + 14 = 50$? Convince me how you could use graphs to find solutions, or estimates, for equations.	• Some pupils may think that you always have to manipulate the equation to have the unknowns on the LHS of the equal sign, for example $2x - 3 = 6x + 6$ • Some pupils think if $4x = 2$ then $x = 2$. • When solving equations of the form $2x - 8 = 4 - x$, some pupils may subtract 'x' from both sides.	•Solve linear equations with the unknown on one side •Solve linear equations with the unknown on both sides •Explore connections between graphs and equations

Stratford School Academy

Schemes of Work

Lesson	Clear learning intentions	Clear success criteria	Hook	Presentation of content	Guided practice	Independent practice (homework)	Closure
1. Understanding inverses	Can I fill in the missing gaps to find my required number?	* Choose the required inverse operation when solving an equation	**Function machine**	Key point 1 Key point 2 New GCSE Foundation textbook – Page 122	New GCSE Foundation textbook – Page 122 Question1-3		Match up the inverse signs.
2.		* Solve missing number problems expressed in words * Know the basic rules of algebraic notation	**Function machine2**	Example 1 New GCSE Foundation textbook – Page 123	New GCSE Foundation textbook – Page 123 Question 4-5		What's the wrong one:- X+x+x = 3x XxXxX= 3x Explain which one is correct and why.
3. One step equations	Can I solve one-step equations?	* Solve one-step equations when the solution is a whole number	2 function machine questions from previous lesson	https://www.mathswatchvle.com/video/mw-clip.php	New GCSE Foundation textbook – Page 123 Question 5-6		A linear question which involves a fractional answer. e.g. 3x+4=11
4. Two step equations	Can I solve to find x with the unknown on both sides?	* Solve two-step equations (including the use of brackets) when the solution is a whole number	**One step equations**	Example 2 New GCSE Foundation textbook – Page 128	New GCSE Foundation textbook – Page 128 Question 5-7		Write down 3 things you have learnt today WWW/EBI
5. Two step equations with brackets	Can I solve to find x with the unknown on both	* Solve two-step equations (including the use	**5 expanding bracket questions:-**	MathsWatch Clip 105a	New GCSE Foundation textbook –	My maths-solving equations	Traffic Light feedback

	sides with fractions?	of brackets) when the solution is a fraction	**5(x+3)** **6(x-4)** **x(x+3)** **10(x+7)** **7(6-x)**		Page 123 Question 8-10 Maths watch assisted worksheet		
6. Three step equations	Am I able to solve more difficult equations?	* Solve three-step equations (including the use of brackets) when the solution is a fraction	**Solving 2step with brackets**	MathsWatch Clip 105b	https://www.mathswatchvle.com/video/mw-clip.php		Three step linear with fractional answer.
7. Difficult equations	Am I able to solve more difficult equations?	* Solve difficult-three step equations (including the use of brackets) when the solution is a fraction	**e.g.** Solve $\frac{4x+3}{5} = \frac{2x-1}{2}$	New GCSE Higher textbook – Page 36 Question 9-15	New GCSE Foundation textbook – Page 126 Question 13-15 Maths watch assisted worksheet		Write down 3 things you have learnt today WWW/EBI
8. Introduction to Inequalities	Do I understand the different signs for inequalities?	*Use correct notation for inequalities.	Which ones are inequalities	https://www.activeteachonline.com/product/view/id/384/page/128/mode/dps	New GCSE Foundation textbook – Page 129 Question1-3		Write the new words you have learned this lesson
9. Solving liner inequalities	Am I able to solve liner inequalities?	*Solve simple linear inequalities	Possible values of x	https://www.activeteachonline.com/product/view/id/384/page/130/mode/dps	New GCSE Foundation textbook –		Show your work to your neighbour, work

					Page 130 Question 8-10 Page 131 Questions 1-5		in pairs to set targets
10. Listing inequalities	Can I list the numbers that are represented in an inequality?	*Listing numbers which satisfy inequalities	**Solving 5 linear inequality from previous lesson**	https://www.activeteachonline.com/product/view/id/384/page/130/mode/dps	New GCSE Foundation textbook – Page 129 Question6-7		Write down 3 things you have learnt today WWW/EBI
11. Inequalities on number lines	Do I understand how to represent inequalities on a number line?	Represent inequalities on a number line	**Connect the inequality**	https://www.activeteachonline.com/product/view/id/384/page/132/mode/dps	New GCSE Foundation textbook – Page 129 Question4-5 8 and 9		Exam question on 3different inequality questions.
12. Homework Lesson							
13. Check up/revision lesson	Revision of objectives learnt throughout the topic.	Formative assessment on the core objectives, grouped by topic.					
14. Test							