Year 7 – Unit 8: Expressions and Equations

MATHEMATICS

THE WHITBY HIGH SCHOOL

Why is this topic important?

Computer chips are used in all the machines we use in daily routine like consoles, televisions, phones, cars, etc. All chips, which we use in these machines are based on mathematical equations and algorithms. Mathematical equations are also used in traffic control, aircraft, space programs, medicine and so on. So we should always remember that any mathematical equation has the potential to change the world.

When would I have learnt about this topic previously?

You would have learnt about this topic while you were in primary school. You may remember some of the key vocabulary and some of the methods involved. You also learned about Algebra during units 3 and 4 this year. Check back in your book!

Year 7	A	B	C	D	E
Simplfying Expressions	Simplify expressions by collecting like terms.	Expand single brackets.	Simplify expressions involving brackets, use rules for indices.	Multiply out two single brackets and collect like terms.	Factorise an algebraic expression.
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Solving Equations	Solve simple equations and check the solution is correct.	Solve real life problems using equations.	Understand the difference between an expression and an equation, and identify the unknown in an equation.		
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Forming Expressions and Equations	Write formulae.	Write and solve simple equations.	Write and solve two-step equations.	Write and solve equations with letters on both sides.	Write and solve equations that have brackets.
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Substitution		Substitute into algebraic expressions.	Substitute into algebraic expressions involving powers.	Use brackets with numbers and letters.	Substitute values into formulas.
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When rating yourself do it using a number from 1 to 5. 1 means you need a lot more work on the topic, 5 means you have mastered the topic.

Key Vocabulary for this Topic Includes: Term, expression, simplify, expand, indices, factorise, formula, substitute, solve, equation	You will be assessed in this topic in the following ways: The topic will be included in your end of unit test and your end of term test.	This unit will help you to Achieve results that are simple to understand and you should take time to Care for the quality of your written work

Prepare students for the future; support all to **achieve** their best; **care** for themselves, others and their environment and **enjoy** education and all the joy it can bring.