Birkdale High School	Mathematics Department Foundation Stage	Curriculum Map
Unit 3: Introduction to Algebra		**Year Group: 7**
INTENT: Aims of the Unit	**IMPLEMENTATION:** Knowledge and delivery	**IMPACT:** Assessment

INTENT	IMPLEMENTATION	IMPACT
In Mathematics Year 7 we are looking at students completing the Mastery approach to learning. In this unit we are looking at introducing algebra. Having studied positive and negative numbers students start to learn about abstract mathematics and to understand that the rules for integers hold true in an algebraic context.	Knowledge ● Letters to represent numbers ● Substituting numbers for letters ● Writing algebraic expressions and formulae ● Understand term, variable, coefficient and constant of an expression ● Like terms and unlike terms ● Addition and subtraction of Linear Expressions Delivery ● Teacher led instruction using activstudio ● Class discussion ● WAGOLLs ● Bar Modelling ● Random/Targeted Questioning ● Textbook questions ● Tutorial lessons Possibly to include ● Variation theory ● Treasure hunts ● Puzzles ● Mathsbox settlers ● Manipulatives	**What knowledge are you assessing?** ● use letters to represent numbers ● interpret simple algebraic notations ● substitute integers into simple expressions and formulae ● identifying parts of an expression (variable, coefficient, constant, term) ● write simple expressions and formulae ● simplify expressions by collecting like terms ● add and subtract linear expressions **Which elements of fluency of knowledge are you assessing?** ● Express written problems in algebraic notation ● Set up formulae to connect variables ● Evaluate expressions and formulae by substitution
Enabling Learning ● four operations in number for positive and negative integers ● squares and cubes of numbers ● GEMS		

Key Vocabulary		Wider Learning
Tier 2: High frequency / Multiple meaning represent, letters, substitute, expression, simplify, term, formula, express, linear, constant. variable	*Tier 3: Subject related.* Algebra, coefficient	**SMSC / RWCM / CEIAG**

Birkdale High School	Mathematics Department Foundation Stage	Curriculum Map
Unit 4: Simple equations		**Year Group: 7**
INTENT: Aims of the Unit	**IMPLEMENTATION:** Knowledge and delivery	**IMPACT:** Assessment
In Mathematics Year 7 we are looking at students completing the Mastery approach to learning. In this unit we are looking to introducing and solve equations. Having studied positive and negative numbers students start to learn about abstract mathematics and to understand that the rules for integers hold true in an algebraic context and including writing expressions and formulae and start to solving equations using manipulatives. **Enabling Learning** - four operations in number for positive and negative integers - squares and cubes of numbers - GEMS - algebraic notation	Knowledge - Equations in one variable - Writing equations to solve problems Delivery - Teacher led instruction using activstudio - Class discussion - WAGOLLs - Bar Modelling - Random/Targeted Questioning - Textbook questions - Tutorial lessons Possibly to include - Variation theory - Treasure hunts - Puzzles - Mathsbox settlers - Manipulatives	**What knowledge are you assessing?** - understanding the concept of equations and balancing - solve one step simple equations in one variable using a T bar method - solve two step equations in one variable using a T bar method - solve equations with unknowns on both sides **Which elements of fluency of knowledge are you assessing?** - Express written problems in algebraic notation - Set up formulae to connect variables - Evaluate expressions and formulae by substitution - write simple equations in one variable to solve problems (involving unknown on one and two sides)
Key Vocabulary		**Wider Learning**
Tier 2: High frequency / Multiple meaning represent, letters, substitute, expression, simplify, term, formula, express, linear, solve, equation	*Tier 3: Subject related.* algebra	**SMSC / RWCM / CEIAG**