West Moors Middle School – Curriculum Component Profile

Subject: Maths	Year: 8
Description of learning: The curriculum in Key Stage 3 is more diverse and varied than Key Stage 2. The focus moves from number and calculation and broadens to include; algebra, ratio & proportion and probability. Whilst all the elements of calculation, place value and fractions are still covered within Key Stage 3, it is instead under the heading, number. By the end of year 8 a child should be increasingly fluent in making meaningful connections between different mathematical concepts and apply them readily. A child should understand and solve a variety of algebraic equations; understanding how to manipulate expressions and equations fluently. A child is applying formulas and known rules to geometry and measures problems to find information.	
Important questions: What happens when directed numbers travel through zero? Can we prove that order of operation is essential for generating the correct answer? How can worded questions be presented in a formula using letters?	Bigger picture and linking: By the end of year 8 a child should be increasingly fluent in making meaningful connections between different mathematical concepts and apply them readily. A child should understand and solve a variety of algebraic equations; understanding how to manipulate expressions and equations fluently. A child is applying formulas and known rules to geometry and measures problems to find information.
Overlearning required: Pupils will overlearn the concepts of multiplication and division when using numbers less than zero and with decimals. Pupils will also be required to overlearn how letters can be applied to mathematics to identify unknowns and the conversion of worded questions into algebraic formulae.	WoW factor: Pupils will be provided with opportunities to apply their learning through a range of substantial activities and mini research projects. Micro-Tyco will be used periodically throughout the academic year to apply pupils to apply maths to finance projects and allow for basic accounting skills. All pupils are provided access to Times Table Rock Stars – this pupil centred application encourages regular practice of multiplication and division. The software package includes supporting worksheets and pupil tracking.
How will our learning values be developed? Pupils will be encouraged to develop their independence through mathematical toolkits provided on desks. Toolkits will enable pupils to select the equipment best suited to helping interpret question types	How will our community values be developed? Pupils will demonstrate respect when working in groups and understand the various dynamics that enable group work to be successful. Pupils will engage in real-life scenarios using sensitivity where needed such as when discussing personal finance.
How will pupils' numeracy be developed? N/A	How will pupils' literacy be developed? Appropriate use of mathematical language that is used consistently across the department. Key vocabulary is incorporated within our SPAG focus for books.