ERNULF ACADEMY
Astrea Academy Trust
INSPIRING BEYOND MEASURE

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Year 7 Corrective Mathematics 2022_2023	Subject Intent	Our aim is to deliver an appropriately ambitious curriculum that secures subject knowledge through depth, breadth and ambition for all pupils. Our carefully chosen curriculum provides atomisation, careful sequencing, alignment of content, instruction, and assessment. Pupils learn to become fluent in the fundamentals of mathematics to access complex problems and develop conceptual understanding. Pupils apply their understanding to routine and non-routine problems with increasing sophistication. We fundamentally believe in mastering and building a foundation of Mathematics to allow more complex mathematics to be taught and learnt with fidelity, accuracy and pace.
	KS3 Subject Narrative	Pupils in the Corrective Mathematics programme learn addition, subtraction, and multiplication in the first academic year. If pupils complete the three modules, then they move onto the division module. Pupils relearn how to apply the four operations after being identified for the programme. Pupils then move onto the Direct Instruction programme, Essentials for Algebra. Remaining topics not identified in Essentials for Algebra are taught as resources created by the Astrea Textbook designed by the National Lead team.
	KS4 Subject Narrative	The Year 10 and 11 curriculum includes topics which are mixed concepts e.g., Linear graphs is the application of algebraic notation and linear equations in the context of coordinate geometry.
	Routine Assessment Strategies	In the KS3 curriculum, pupils experience individual turns, delayed tests, mastery quizzes and remediation tests to ensure knowledge is committed to their long-term memory. Year 10's use knowledge retrieval and procedural starters and have a fortnightly low stakes cumulative quiz which the later is marked by teachers and stored on a central spreadsheet to measure progress. Each fortnightly quiz is a SAR (Strength Action Response) task where pupils are given feedback before and after their low stake cumulative quiz.

Year 7 Corrective Mathematics 2022_2023	WHY THIS, WHY NOW?	Autumn Term – Addition	Spring Term – Subtraction	Summer Term – Multiplication
	Key Subject Knowledge	• 100 basic addition facts • Operation of addition • Reading and writing numbers into the thousands • Column addition with 3- and 4- digit numbers • Addition with carrying • Story problems with distracters	• 100 basic subtraction facts • Operation of subtraction • Renaming (borrowing) • Reading and writing numbers into the thousands • Subtraction story problems • Story problems that require discrimination between addition and subtraction	• 100 basic multiplication facts • Operation of multiplication • Reading and writing thousands numbers • Multiplication story problems • Story problems that require discrimination among multiplication, addition and subtraction
	Subject Competencies	• Pupils learn single digit and multi digit addition through the structure of place value columns. Pupils then apply their understanding to story problems where they create the addition problems from a problem.	• Pupils learn single digit and multi digit subtraction with and without renaming. Pupils then apply their understanding to story problems. • Pupils learn how to discriminate between addition and subtraction, and then apply their knowledge to extract the addition or subtraction problem from a story problem.	• Pupils learn single digit and multi digit multiplication through the structure of place value columns. • Pupils learn how to apply their addition skills in the column multiplication. • Pupils discriminate between addition, subtraction and multiplication and create a calculation from a story problem.
	Summative Assessments (high stakes assessments which test cumulative knowledge)	• Pupils have 14 in-program mastery tests.	• Pupils have 18 in-program mastery tests • Pupils have a numeracy age baseline assessment to measure progress	• Pupils have 15 in-program mastery tests • Pupils have 32 cumulative review baseline masters • Pupils have a numeracy age baseline assessment to measure progress
	How does this pave the way for future study?	• Pupils learn addition to access the relationship with subtraction, and the addition practice in column multiplication.	• Pupils learn subtraction to access the relationship with addition, and the subtraction practice in short division	• Pupils learn multiplication to access the relationship with division, and the discrimination between the four operations