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Curriculum Planning Template

Subject: Maths Year 7 Ability Mixed

Half Term 4 / weeks	**Half-term 4 (2 weeks)**	**Half-term 4 (3 weeks)**	**(1 week)**
Topic	Unit 9: Order of operations	Unit 10: Introduction to algebra	Reteach and Retention
Topic overview **Pupils will learn…**	Students knowledge of Order of operations is tested and re-enforced for the first time at TCA	To introduce the key skills of algebra in context with particular focus on gathering like terms and expanding	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
Components	• To be able to use the order of operations using all four operations • To be able to use brackets in calculations • To be able to add brackets into a calculation to make the calculation accurate • To be able to use simple index notation	• To be able to represent an unknown as a letter • To be able to write simple algebraic expressions, linking to perimeter and area • To be able to substitute values into an algebraic expression • To be able to collect like terms, including terms with indices • To be able to expand out a single pair of brackets • To be able to add and subtract pairs of brackets • To be able to use HCF to factorise and expression into single brackets • To be able to recognise that different-looking expressions may be identical and prove simple algebraic identities	Staff complete a program of adaptive reteaching on specific topics based on the individual/class needs within their groups. Regular assessments are used to identify gaps in learning. Any gaps found are then addressed in lessons to help support learning and retention. Clear areas for improvement are monitored by individual staff and at a departmental level.
What pupils should already know (prior learning components)	Pupils base understanding of number work, in particular factors and multiples will be needed for this. Students ability to perform all basic operations will also be required here	Students will need to show knowledge of place value and good mental arithmetic as well as use of a calculator. Students will need to be to be able to identify factors of two numbers Students will need to link previous learning of perimeter and area of shapes	All the half term content will have been covered by this point. Staff will use departmental tracking documents to analyse the gaps in learning from the most recent assessments and all previous assessments. The ability to structure and breakdown a problem-solving question as exemplified in the TFI questions throughout the course.
Transferrable knowledge (skills)	The order of operations take precedent in every maths calculation completed by students. These skills can underpin almost all of subsequent mathematics where calculations including more than one basic operation is present. This will also link into student's fluency with algebra, when students are substituting values into expressions.	These algebraic skills are used to increasing levels of difficulty from this point onwards. These skills are key to all future work in algebra especially solving quadratics. Confidence here with indices will be revisited later in KS4 with negative and fractional problems as well as in KS5 for differentiation. The use of powers will also be needed when using standard form.	This activity should serve to highlight and address areas of weakness in teaching and learning or retention. This early intervention to understand specific key areas for improvement or development. This should help to build confidence and improve students' ability to answer these and directly sequential problems.
Key vocabulary pupil will know and learn	Operations, indices, powers, roots, multiply, divide	expressions, expand, brackets, single, double, like terms, simplify, factorise, area, perimeter	
Assessment activities	Homework 12 Year 7 Half term Test 5	Homework 13 Year 7 Half term Test 5	AFL and adaptive teaching will continue to support staff to assess the address areas.
Resources available	Maths watch clips: 2, 3, 19, 20, 21, 29, 68, 75, 81, 82, 154	Maths watch clips: 7, 33, 34, 35, 36, 93, 94, 95, 134, 135, 136, 137, 157, 178	Before any assessments are completed, revision and guidance materials are provided for students to assist in independent study.
Notes	This unit begins with the recall of order of operations from KS2. Students' may have learnt this as BIDMAS or BODMAS from primaries so the mathematical understanding of order of operations is prioritised (you	The start of this topic looks at the algebra in maths to represent unknowns. These then move into the ideas of algebra to represents perimeters and areas of 2D shapes.	This is an important point in the curriculum plan that enables individual teachers to review the gaps in learning for the classes they teach. The half-termly assessments are used to track students' progress and enable teachers to react quickly to any

	do not have to divide before you multiply) Students' will then use their skills of order of operations to be able to make calculations correct by adding in brackets. Students will then be extending this to work with calculations with indices. This is a fundamental skill students will need in order to be successful when algebraic substitution in introduced.	Perhaps the most important skill seen here though is the ability to expand and factorise. This is a corner stone of maths that is used all the way through to degree level. These skills used here will be used to solve and understand quadratics at KS4 and cubic and beyond at KS5.	gaps in knowledge and prepare students for the next assessment. The feedback and modelling of the exam answers enables students to pick up exam techniques and the ability to communicate effectively.