

Subject: Maths **Year** 7 **Ability** Mixed

Half Term 2 / weeks	Half-term 2 (2-3 weeks)	Half-term 2 (2 weeks)	Half-term 2 (1 week)
Topic	Unit 4: Multiplication and division methods	Unit 5: Multiplication and division with decimals	Reteach and Retention
Topic overview Pupils will learn...	To recall multiplication and division strategies and apply these to a variety of mathematical problems	To recall multiplication and division strategies and adapt these to decimal calculations	Focus on the process of reteach and retention, knitting together the learning in reaction to the assessments completed
Components	<ul style="list-style-type: none"> To be able to multiply integers using column multiplication To be able to work out the area of squares and rectangles and calculate missing sides given the area To be able to list the factors of any integer To be able to list multiples of any integer To be able to articulately explain and give examples of a prime number To be able to find the highest common factor and lowest common multiple with lists To be able to express as number as a product of its prime factors To be able to work out the mean of a dataset To be able to multiply and divide indices with the same base To be able to multiply and divide in standard form To be able to multiply and divide algebraic terms 	<ul style="list-style-type: none"> To be able to multiply a decimal by a whole number To be able to multiply a decimal by a decimal To be able to calculate areas of 2D shapes, including squares, rectangles and triangles To be able to divide numbers that will not terminate, to add zeros until it will terminate - avoid any use of remainders. To be able to divide a decimal by a whole number. To be able to divide by a decimal To be able to estimate calculations that require the division of a decimal To be able to calculate the mean of a dataset To be able to use equivalence to divide decimal by decimal To be able to convert a recurring decimal to a fraction 	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)	Students should be able to recall multiplication and division facts of times tables up to 12 x 12 Students should also be familiar with the formal written method of long multiplication. Higher attaining students will need to recall the notations of standard index form	Students should be able to round values to the nearest 10, 100, 100 and a given number of decimal places.	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)	This unit embeds students to practice their mental dexterity with multiplication and division ability to multiply and divide in a set of contexts. These skills underpin almost all of subsequent mathematics.	This units develops students' fluency with working with decimal calculations. These skills underpin almost all of subsequent mathematics. This is particularly the case with confidence with multiplying and dividing decimals which will be used repeatedly in any unit that uses substitution, formulae and money calculations	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	product, integer, area, length, factor, multiple, prime, square, index form, prime decomposition, standard index form	Multiply, divide, decimal, estimate, round, decimal place, remainders, area, equivalent, recurring	

Assessment activities	Homework 5 on multiplication and division methods Year 7 Half term Test 2	Homework Year 7 Half term Test 2	AFL and adaptive teaching will continue to support staff to assess the address areas.
Resources available	Maths watch clips: 19, 20, 28, 66, 67, 68, 79, 80, 81, 82, 83, 131	Maths watch clips: 19, 20, 31, 32, 66, 67, 90, 91, 92	Before any assessments are completed, revision and guidance materials are provided for students to assist in independent study.
Notes	The entry to this unit begins with embedding students recall of basic multiplication and division task. The unit extends to explore different types of number including factors, multiples and primes. The unit finishes with students using these skills to determine the highest common factor and lowest common multiple with lists. This skill will be developed in KS4 to venn diagrams, which is often present in problem solving questions as well as factorising that will be used in harder quadratic problems in KS4. Higher ability students will be extend to multiply and divide numbers given in standard index form.	This unit develops the skills of calculations with decimals. An advancement through these skills will lead to increasingly challenging values being used to work with and then into problems that use these skills in contexts including money, some of which will be evident in this unit.	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 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.