

Year 7 : Multiplication & Division Medium Term Plan

Multiplication and Division	Negative Numbers	Multiply and divide with negative integers and decimals.	Temperature
	Integer Multiplication	Promote fluency of basic multiplication facts and inverse operations. Multiply two digit numbers and above by various methods including column and grid.	Vedic Square investigation.
	Integer Division	Divide integers using multiplication facts, chunking and long division methods.	
	Multiplying and dividing by 10, 100, 1000	Multiply and divide any integer and decimal by 10, 100, 1000 and beyond.	
	Decimal Multiplication	Multiply any decimal number by an integer or decimal. Include electric bill type questions. EXAMPLE: James pays 23p per unit of electric etc...	Decimal multiplication investigation.
	Decimal Division	Divide any decimal numbers. Manipulate a calculation fact to satisfy a similar calculation. E.g. $2 \times 4 = 8$ 'What is 0.02×0.4 ?	
	ISBN Numbers (1 lesson)	Multiplication, addition and division. Logical thinking.	

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	Upper and Lower Bounds	Complete the upper and lower bounds for multiplication and division calculations.	Real life perimeter problems involving
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Key Knowledge/Prior Learning KS2 & Suggested Starters
• Multiply multi-digit numbers up to 4 digits by a two-digit whole number using the formal written method of long multiplication • Divide numbers up to 4 digits by a two-digit whole number using the formal written method of long division, and interpret remainders as whole number remainders, fractions, or by rounding, as appropriate for the context • Divide numbers up to 4 digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context • Perform mental calculations, including with mixed operations and large numbers • Times tables • Rounding to powers of 10 • Place Value Figures • Estimation

KS3 National Curriculum – what students will be practicing
• Use the four operations, including formal written methods, applied to integers, decimals, proper and improper fractions, and mixed numbers, all both positive and negative • Use estimation to check answers to calculations and determine, in the context of a problem, an appropriate degree of accuracy. • Calculate with upper and lower bounds involving multiplication and division.

Key Vocabulary/Literacy Opportunities
• Multiplication • Division • Place value • Integer • Decimal • Estimation • Approximation

Key Formulae/Knowledge
• Methods for multiplication: -long multiplication, -partial products (column), -grid, -chinese/lattice, -distributive method, -ancient Egyptian multiplication, -Russian peasant multiplication, -stick/Japanese multiplication, • Methods for division: -bus stop, -long division,

-partial quotients, -by factors (prime factors)
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Cross Curricular Links

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| <ul style="list-style-type: none">• These core skills link to all subjects, topic areas and subsequent learning within the maths curriculum. |
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Projects/Enrichment/Investigations

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| <ul style="list-style-type: none">• Countdown: https://nrich.maths.org/6499• Dickey Operations: https://nrich.maths.org/6606 |
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<u>Projects:</u>

Core:

ISBN Numbers

Upper:

ISBN Numbers

Set 1:

ISBN Numbers
