Methods for Multiplying and Dividing : Maths : Year 5 : Autumn Term



	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To be able to use short multiplication to multiply two- and three-digits by a single digit.	Children will start by playing a game to encourage recall of known multiplication facts. They will then go on to consider which methods they are already familiar with for solving multiplication problems, before looking in more detail at formal short multiplication, starting with two-digit by one-digit and progressing to three-digit by one-digit calculations as they become more confident.	 Can children recall multiplication facts for tables up to 12x12? Can children use formal short multiplication to solve two-digit by one-digit calculations? Can children use formal short multiplication to solve three-digit by one-digit calculations? 	 Slides Worksheet 1A/1B/1C Dice Spinners Secret Code Sheet 1A/1B (FSD? activity only)
Lesson 2	To be able to use short multiplication to solve problems involving up to four-digit by one-digit calculations.	This lesson starts by showing children a completed short multiplication calculation and asking them to check whether it is correct. They will then talk through each step in the process of solving short multiplication calculations, first with three-digit and then with four-digit calculations. There is also the opportunity to solve missing number calculations and tackle some multiplication challenges.	 Can children recall times tables facts accurately for multiplication tables up to 9x9? Can children use short multiplication accurately to solve calculations with up to four digits? Can children use their understanding of the short multiplication method to solve problems? 	 Slides Challenge Cards 2A/2B/2C Number Word Search 2A/2B (FSD? activity only)
Lesson 3	To be able to use the chunking method to solve division problems.	Children will recap the relationship between multiplication and division before looking in detail at the chunking method of division. After solving some division problems using chunking, children will use short multiplication (the inverse) to check that their calculations are correct, and vice versa.	 Can children use known number facts to divide numbers mentally? Can children use the chunking method correctly to solve division calculations involving numbers up to four digits? Can children use short multiplication to check chunking calculations, and vice versa? 	 Slides Worksheet 3A True or False Cards 3A/3B/3C Challenge Sheet 3A/3B (FSD? activity only)
Lesson 4	To be able to solve multiplication and division problems in context.	Children will consolidate their understanding of the short multiplication and chunking division methods to solve a variety of real-life problems. The slides go through several examples of questions to solve as a class, including key prompt questions to help children identify what they need to do in order to successfully solve word problems. They can then tackle a variety of word problems and challenges independently.	 Can children identify what a word problem is asking them to find out? Can children take appropriate steps to solve a word problem, including choosing the correct operation? Can children check that their answer is accurate? 	 Slides Word Problem Sheet 4A/4B/4C Challenge Cards (FSD? activity only)
Lesson 5	To explore the lattice method of multiplication and compare it to other known methods.	This lesson introduces children to the lattice method of multiplication. Firstly, they are shown a calculation that has been completed using this method and challenges them to use what they notice to explain how the method works. They can then go through some calculations as a class to familiarise themselves with this method. They are encouraged to describe why the method works and not just describe the steps needed to solve each problem, as well as to compare this to other known multiplication methods to assess ease, efficiency and accuracy.	 Can children recall multiplication facts for all times tables up to 9x9? Do children understand how and why the lattice method of multiplication works? Can children use the lattice method correctly? 	 Slides Lattice Calculations 5A/5B/5C Points Cards 5A/5B/5C Calculation Cards 5A/5B/5C (FSD? activity only) Challenge Card (FSD? activity only)

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NB: 'FSD? Activity only' refers to the alternative 'Fancy Something Different...?' activity within the lesson plan www.planbee.com