

Mental and Written Subtraction: Maths : Year 5 : Summer Term

	Learning Objective	Overview	Assessment Questions	Resources
Lesson 1	To recap the formal written method for subtraction.	Children revisit the formal written method for subtraction by using it to find the difference in heights between mountains. They have the opportunity to discuss the suitability of the method for different problems and begin to use their knowledge of the method to investigate differences within given criteria.	<ul style="list-style-type: none"> Can children use the formal written method from subtraction efficiently and effectively? Are children able to describe the process of exchanging and why/when it needs to be done? Are children able to make decisions on when the formal written method is appropriate for a calculation and when a mental method would be more suitable? 	<ul style="list-style-type: none"> Slides Worksheet 1A/1B/1C Mountains Map 1A/1B Worksheet 1D (FSD? activity only) Laptops (FSD? activity only) Maps and atlases (FSD? activity only)
Lesson 2	To subtract numbers with up to three decimal places.	Through the use of the formal written method for subtraction the children will find the differences between distances in the context of world records. They will be faced with problems involving an inconsistent number of decimal places and given the chance to explain how to solve these kind of questions. Alternatively they are given the chance to attempt a world record, giving them the opportunity to develop their accurate measuring skills as well as subtracting decimal numbers.	<ul style="list-style-type: none"> Are children able to lay out a column subtraction including numbers with up to three decimal places? Can children subtract numbers containing a consistent number of decimal places? Are children able to solve subtraction problems involving numbers with a different number of decimal places? 	<ul style="list-style-type: none"> Slides Conversion Card World Record Cards Worksheet 2A/2B/2C Results Sheet Plain Paper Large measuring tape/rulers
Lesson 3	To find the difference between positive and negative numbers.	Children explore negative numbers in the context of a timeline where negative numbers are represented as dates before 0 AD. They are challenged to find the difference between a date before 0 AD and one after using a number line with two jumps to cover the difference.	<ul style="list-style-type: none"> Can children can define a negative number? Are children able to describe what happens when you subtract a negative number from a positive number? Can children calculate a negative number subtracted from a positive number? 	<ul style="list-style-type: none"> Slides Positive and Negative Signs Teacher Cards 3A Worksheet 3A/3B/3C Challenge Card 3A Historical Timeline 3A Event Cards (FSD? activity only) String, paperclips, paper strips (FSD? activity only)
Lesson 4	To use the informal partitioned subtraction method.	This lesson introduces a new method to the children using partitioning and negative numbers to subtract. The children must use their existing knowledge of negative numbers and the number line to help them find the difference between two numbers. The children are given time to practise and apply the new method before being asked of the advantages and disadvantages of the method.	<ul style="list-style-type: none"> Can children use partitioning to solve a subtraction problem? Are children able to describe what is happening when you add a negative number? Can children describe their preferred method, backing up their decision with reasoned explanations? 	<ul style="list-style-type: none"> Slides Numbers in Words Card Worksheet 4A/4B/4C Budget Card 4A Budget Card 4B (FSD? activity only)
Lesson 5	To use rounding to check our answers for accuracy.	Children are challenged to use their estimating and rounding knowledge to help them make sensible and practical estimations of numbers. They must estimate a subtrahend for a question with limited information before choosing the most suitable answer from a selection.	<ul style="list-style-type: none"> Can children round to the nearest 10, 100, 1,000, 10,000 and nearest whole number? Can children choose what to round the numbers in a question to, to produce an effective estimate? Are children able to decide whether their answer is feasible based on their estimate? 	<ul style="list-style-type: none"> Slides Rounding Loop Cards Worksheet 5A/5B Challenge Card 5A Check Yourself Sheet A/B (FSD? activity only)