


















Addition, Subtraction, Multiplication and Division: Engines Ready

<p>Aim: Divide numbers up to four digits by a two-digit number using the formal written method of short division where appropriate, interpreting remainders according to the context.</p> <p>I can divide numbers by a two-digit number using short division.</p>	<p>Success Criteria: I can use known multiplication facts to complete calculations.</p> <p>I understand why place value is important whilst performing written calculations.</p> <p>I can use a written method to solve a calculation.</p>	<p>Resources: Lesson Pack Scissors Dice Calculators</p>
<p>Key/New Words: Division, divide, how many, short division, place value, calculation, number sentence, written method, dividend, divisor.</p>	<p>I can divide numbers by a two-digit number using short division.</p>	<p>Preparation: Make Me a Number Activity Sheet - one per child Engines Ready Game Board - one per pair Race Track Game - one per pair Race Car Division Top Cards - one per pair Short Division Record Sheet - one per child Extra Challenge Activity Sheet - as required</p>

Prior Learning: It will be helpful if children understand place value and know their multiplication facts up to 12×12 prior to the lesson.

Learning Sequence

	<p>Make Me a Number: In pairs, children take turns to roll a dice and place the digit onto the Make Me a Number Activity Sheet, creating four-digit numbers to show the highest even number, lowest odd number and the number closest to 5000. At the end of the game, the children compare their numbers to find out who has won overall. To extend the game, the children can choose their own categories, e.g. highest prime number, square number, etc.</p>		
	<p>Race Day: Revise the written strategy, short division, by talking through the information on the Lesson Presentation. Repeat with additional examples if necessary. Explain that children could use a multiplication consisting of the divisor and the answer to check the accuracy of the calculation (they should end up with the dividend).</p>		
	<p>Race Day Problems: Using the Lesson Presentation, the children solve word problems using the formal written method, short division. <i>Can the children explain how they completed the calculation? Did they choose to use short division? Did any known facts help them to complete the calculation? Did the children check their answer?</i></p>		
	<p> Children take turns to roll the dice and move the desired number of spaces on the Engines Ready Game board and complete the <i>two and three-digit division calculations with no remainders using the written method, short division</i>. Once the player has completed the calculation, they ask their partner to check the calculation using a calculator. If it is an incorrect answer, they will need to move their race car back to where they began their turn. The first race car to the end of the track wins.</p>	<p> Children take turns to roll the dice and move their race car the desired number of spaces on the Race Track Game board. After, they select a card to form a division calculation, e.g. $4534 \div 12$ and complete the <i>two and three-digit division calculations with remainders using the written method, short division</i>. Some of the calculations may have a remainder. Once they have finished the calculation, they get their partner to check their answer. If the answer is correct, the child scores one track point. Repeat the process. The player with the most track points at the end of the game wins.</p>	<p> Children take turns to select a category on the Race Car Division Top Card and complete the <i>two and three-digit division calculations with decimals using the written method, short division</i>. The player with the answer that best suits the category wins both cards. The player with the most cards by the end of game wins. An Extra Challenge Activity Sheet is provided as an extension activity if required.</p>

	<p>Diving into Mastery: Schools using a mastery approach may prefer to use the following as an alternative activity. These sheets might not necessarily be used in a linear way. Some children might begin at the 'Deeper' section and in fact, others may 'dive straight in' to the 'Deepest' section if they have already mastered the skill and are applying this to show their depth of understanding.</p> <hr/> <p> Children solve word problems using short division to divide a four-digit number by a two-digit number.</p> <p> Children reason about short division calculations, spotting and correcting errors.</p> <p> Children investigate short division to solve problems.</p>	
	<p>Three Stars and a Wish: Ask children to select two things from today's lesson that they are proud of and one thing that they could improve on in the next lesson.</p>	

Exploreit

Huntit: Children create their own division treasure hunt around the school grounds.

Findit: Children practise short division using this [Noughts and Crosses Division Game](#).