

# Mental Multiplication and Division: Maths : Year 6 : Spring Term

	Learning Objective	Overview	Assessment Questions	Resources
<b>Lesson 1</b>	To be able to recognise multiples and common multiples of numbers to 10.	Children will find multiples of one-digit numbers, then identify common multiples of numbers to ten. They may then find common multiples on a grid and/or find prime numbers.	<ul style="list-style-type: none"> <li>• Can the children recognise multiples to the 10th one?</li> <li>• Can they find common multiples?</li> <li>• Can they find prime numbers to 100?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Mini whiteboards</li> <li>• Worksheet 1A/1B/1C</li> <li>• Number Cards (FSD? activity only)</li> </ul>
<b>Lesson 2</b>	To find, use and compare factors, including prime factors.	Children will find all of the factors of some two-digit numbers. They will go on to identify which of these numbers have special properties, e.g. only one pair of prime factors. Some children may draw factor trees to find all of the prime factors of some two-digit numbers.	<ul style="list-style-type: none"> <li>• Can children work systematically to find all of the factors of a number?</li> <li>• Can children find the prime factors of a number?</li> <li>• Can children identify prime numbers by factorising numbers?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 2A/2B/2C</li> <li>• Worksheet 2D (FSD? activity only)</li> </ul>
<b>Lesson 3</b>	To be able to use place value and known multiplication facts to solve calculations involving decimals.	Children will develop strategies for mentally multiplying decimal numbers that are less than one and more than one. They may also begin to use brackets in number sentences to show how they have performed calculations mentally.	<ul style="list-style-type: none"> <li>• Can the children use multiplication facts to solve simple multiplication decimal questions?</li> <li>• Can they solve 2-digit by 1-digit decimal questions?</li> <li>• Can they use brackets?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Mini whiteboards</li> <li>• Worksheet 3A/3B/3C/3D</li> <li>• Number Cards (FSD? activity only)</li> </ul>
<b>Lesson 4</b>	To multiply near multiples of tens by adjusting, e.g. $21 \times 13: (20 \times 13) + (1 \times 13)$ .	Children will identify near multiples of ten of two-digit numbers, then adjust TO x TO calculations to these near multiples when mentally calculating. They will also use brackets in number sentences to express this method.	<ul style="list-style-type: none"> <li>• Can the children multiply by 9 and 11 mentally?</li> <li>• Can they multiply by 21 and 19 mentally?</li> <li>• Can they multiply by 49 and 51?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 4A/4B/4C</li> <li>• Multiplication Cards (FSD? activity only)</li> </ul>
<b>Lesson 5</b>	To use times tables facts to help with mental division calculations.	Children will identify near multiples of the divisor when mentally performing division calculations (e.g. $48 \div 5 = 9$ r3). They may also use a distribution method for solving division calculations and write number sentences using brackets to show this method.	<ul style="list-style-type: none"> <li>• Can children identify near multiples when working out division calculations mentally?</li> <li>• Can children distribute division calculations to make them easier to work out mentally?</li> <li>• Can children use brackets in a number sentence to show distribution?</li> </ul>	<ul style="list-style-type: none"> <li>• Slides</li> <li>• Worksheet 5A/5B/5C</li> <li>• Share It! Instructions and Cards (FSD? activity only)</li> </ul>