

Addition and Subtraction



Objectives	Y1	Y2	Y3	Y4	Y5	Y6
National curriculum objectives	<p>-add and subtract one-digit and two-digit numbers to 20, including zero</p> <p>solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as $7 = c - 9$</p>	<p>-add and subtract numbers using concrete objects, pictorial representations, and mentally, including:</p> <ul style="list-style-type: none"> - a two-digit number and ones -a two-digit number and tens -two two-digit numbers -adding three one-digit numbers <p>-solve problems with addition and subtraction:</p> <ul style="list-style-type: none"> -using concrete objects and pictorial representations, including those involving numbers, quantities and measures -applying their increasing knowledge of mental and written methods 	<p>-add and subtract numbers mentally, including:</p> <ul style="list-style-type: none"> - a three-digit number and ones -a three-digit number and tens -a three-digit number and hundreds <p>-add and subtract numbers with up to three digits, using formal written methods of columnar addition and subtraction</p> <p>-solve problems, including missing number problems, using number facts, place value, and more complex addition and subtraction</p>	<p>-add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate</p> <p>-solve addition and subtraction two-step problems in contexts, deciding which operations and methods to use and why</p>	<p>-add and subtract whole numbers with more than 4 digits, including using formal written methods (columnar addition and subtraction)</p> <p>-add and subtract numbers mentally with increasingly large numbers</p> <p>-solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why</p> <p>-solve problems involving addition, subtraction, multiplication and division and a combination of these, including understanding the meaning of the equals sign</p>	<p>-perform mental calculations, including with mixed operations and large numbers</p> <p>-use their knowledge of the order of operations to carry out calculations involving the four operations</p> <p>-solve addition and subtraction multistep problems in contexts, deciding which operations and methods to use and why</p>
Dfe ready to progress criteria	1NF-1 Develop fluency in addition and subtraction facts within 10	2NF-1 Secure fluency in addition and subtraction facts within 10, through continued practice.	3NF-1 Secure fluency in addition and subtraction facts that bridge 10, through continued practice.			6AS/MD-1 Understand that 2 numbers can be related additively or multiplicatively, and quantify additive and

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	<p>1NF-2 Count forwards and backwards in multiples of 2, 5 and 10, up to 10 multiples, beginning with any multiple, and count forwards and backwards through the odd numbers.</p> <p>1AS-1 Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers.</p> <p>1AS-2 Read, write and interpret equations containing addition (+), subtraction (−) and equals (=) symbols, and relate additive expressions and equations to real-life contexts</p>	<p>2AS-1 Add and subtract across 10</p> <p>2AS-2 Recognise the subtraction structure of ‘difference’ and answer questions of the form, “How many more...?”</p> <p>2AS-3 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract only ones or only tens to/from a two-digit number.</p> <p>2AS-4 Add and subtract within 100 by applying related one-digit addition and subtraction facts: add and subtract any 2 two-digit numbers.</p>	<p>3NF-2 Recall multiplication facts, and corresponding division facts, in the 10, 5, 2, 4 and 8 multiplication tables, and recognise products in these multiplication tables as multiples of the corresponding number</p> <p>3NF-3 Apply place-value knowledge to known additive and multiplicative number facts (scaling facts by 10).</p> <p>3AS-1 Calculate complements to 100</p> <p>3AS-2 Add and subtract up to three-digit numbers using columnar methods</p> <p>3AS-3 Manipulate the additive relationship: Understand the inverse relationship between addition and subtraction, and how both relate to the part–part–whole structure. Understand and use the commutative property of addition, and understand the related property for subtraction.</p>			<p>multiplicative relationships (multiplicative relationships restricted to multiplication by a whole number).</p> <p>6AS/MD-2 Use a given additive or multiplicative calculation to derive or complete a related calculation, using arithmetic properties, inverse relationships, and place-value understanding.</p> <p>6AS/MD-3 Solve problems involving ratio relationships.</p> <p>6AS/MD-4 Solve problems with 2 unknowns</p>
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<p>Power Maths unit/s and when taught in school</p>	<p>Textbook 1A Taught in Autumn Unit 2: Part Whole to 10 – lessons 2-4 (1AS-1) lesson 6 (1AS-2) Unit 3: Addition within 10 – lesson 3 (1AS-2) Unit 4: Subtraction within 10 – lessons 1,2,8 (1AS-2)</p> <p>Textbook 1B Taught in Spring Unit 7: Addition & subtraction within 20 – lessons 1,2,3,6,8,9,11 (1AS-2)</p>	<p>Textbook 2A Taught in Autumn Unit 2: Addition & Subtraction (1) – lessons 6,7, 10,11,13 (2AS-1) Lesson 3 and 5 (2AS-3) Unit 3: Addition & Subtraction (2) – lesson 7 and 8 (2AS-2) Lesson 2 – (2AS-3) Lessons 3,5 and 6 (2AS-4)</p> <p>Textbook 2C Taught in Summer Unit 12: Problem solving and efficient methods – lesson 9 (2AS-4)</p>	<p>Textbook 3A Taught in Autumn Unit 3: Addition & Subtraction (2) – lesson 9 (3AS-1) Lessons 1,2,4,6,7,8 (3AS-2) Lesson 11 (3AS-3) Unit 4: Multiplication & Division (1)</p> <p>Textbook 3B Taught in Spring Unit 5: Multiplication & Division (2)</p>			<p>Textbook 6A Taught in Autumn Unit 1: Place value within 10,000,000 Unit 2: Four operations (1) – lesson 4 and 5 (6AS-1) Unit 3: Four Operations (2) lesson 10 and 11 (6AS-1) Lesson 12 (6AS-2)</p> <p>Textbook 6B Taught in Spring Unit 8: Algebra – lessons 7,10,11 (6AS-4) Unit 7: Ratio & proportion – lessons 1-3 and 7-9 (6AS-3)</p>
<p>Other resources to aid teaching</p>	<p>-Daily Fluent in 5 tasks -White Rose – Autumn 2, Spring 2 -NCETM pages 13-16 https://www.ncetm.org.uk/media/qjpctp24/mastery_assessment_y1.pdf</p>	<p>-Daily Fluent in 5 tasks -White Rose – Autumn 2, - NCETM pages 12-15 https://www.ncetm.org.uk/media/dnobtk14/mastery_assessment_yr2.pdf</p>	<p>-Daily Fluent in 5 tasks -White Rose – Autumn 2, -NCETM pages 12 -15 https://www.ncetm.org.uk/media/oaqfcvjq/mastery_assessment_y3.pdf</p>	<p>-Daily Fluent in 5 tasks -White Rose – Autumn 2, -NCETM pages 12 -14 https://www.ncetm.org.uk/media/x45na0cs/mastery_assessment_y4.pdf</p>	<p>-Daily Fluent in 5 tasks -White Rose – Autumn 2, -NCETM pages 11-13 https://www.ncetm.org.uk/media/lp0o2lgv/mastery_assessment_y5.pdf</p>	<p>-Daily Fluent in 5 tasks -White Rose – Autumn 2, -NCETM pages 12-14 https://www.ncetm.org.uk/media/uitj1x5g/mastery_assessment_y6.pdf</p>

Links to further activities to aid teaching:

White Rose materials link: <https://whiterosemaths.com/resources?year=year-1-new>
 NCETM materials link: <https://www.ncetm.org.uk/classroom-resources/exemplification-of-ready-to-progress-criteria/>
 NCETM activities link: <https://www.ncetm.org.uk/classroom-resources/assessment-materials-primary/>
 NRICH - **PRIMARY CURRICULUM MAP FOR ALL TOPICS**
https://docs.google.com/spreadsheets/d/1blrdv1M9pKzoKrHeyxT5rkHbJUJJWjYug2k4Xe9_es/edit#gid=598691163

Key: Highlighted objectives above link to the topic of place value taught

Red = calculations
 Blue = Problems