

TO ADD AND SUBTRACT

| | Milestone 1 | Milestone 2 | Milestone 3 |
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| Addition & Subtraction problem solving | <ul style="list-style-type: none"> • Solve one-step problems with addition and subtraction using concrete objects and pictorial representations, and missing number problems such as $7 = _ - 9$ (Y1) • Read and write mathematical symbols add (+), subtract (-) and equals (=) (Y1) • Solve one-step problems with addition and subtraction (Y2) <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 • Recognise the subtraction structure of 'difference' and answer questions of the form, "How many more...?" (Y2) | <ul style="list-style-type: none"> • Solve two-step addition and subtraction problems in contexts, deciding which operations and methods to use and why. | <ul style="list-style-type: none"> • Solve multi-step addition and subtraction problems in contexts, deciding which operations and methods to use and why. |

In bold - National curriculum objectives for the year group.

In blue - Ready-to-progress criteria identified as the most important conceptual knowledge and understanding that pupils need as they progress to the next year's curriculum.

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| Addition & Subtraction methods | <ul style="list-style-type: none"> • Add and subtract numbers using concrete objects, pictorial representations, and mentally, including: <ul style="list-style-type: none"> • Add and subtract one digit and two-digit numbers to 20, including zero (Y1) • Add and subtract a two-digit number and ones e.g. $34-8=$ $52+5=$ (Y2) • Add and subtract two-digit numbers and tens $26+30=$ (Y2) • Add and subtract two two-digit numbers $42-22=$ $56+29=$ (Y2) • Add three one-digit numbers $9+6+7=$ (Y2) • Add and subtract across 10. (Y2) | <ul style="list-style-type: none"> • Secure fluency in addition and subtraction facts that bridge 10, through continued practice. (Y3) • Add numbers mentally, including a 3-digit number and ones. (Y3) • Add numbers mentally, including a 3-digit number and tens. (Y3) • Add numbers mentally, including a 3-digit number and hundreds. (Y3) • Subtract numbers mentally, including a 3-digit number and ones. (Y3) • Subtract numbers mentally, including a 3-digit number and tens. (Y3) • Subtract numbers mentally, including a 3-digit number and hundreds. (Y3) • Add numbers with up to 3-digits using columnar method. (Y3) • Subtract numbers with up to 3-digits using columnar method. (Y3) • Add and subtract numbers with up to 4 digits using the formal written methods of columnar addition and subtraction where appropriate. (Y4) | <ul style="list-style-type: none"> • Add and subtract whole numbers with more than 4 digits, including using formal written methods. (columnar addition and subtraction) • Add and subtract numbers mentally with increasingly large numbers. |
| Checking | <ul style="list-style-type: none"> • Use the inverse relationship between addition and subtraction to check calculations and solve missing number problems. | <ul style="list-style-type: none"> • Estimate and use inverse operations to check answers to a calculation. • Understand the inverse relationship between addition and subtraction, and how both relate to the part-part-whole structure. (Y3) • Understand and use the commutative property of addition, and understand the related property for subtraction. (Y3) | <ul style="list-style-type: none"> • Use rounding to check answers to calculations |

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| <p style="writing-mode: vertical-rl; transform: rotate(180deg);">Using addition & subtraction facts</p> | <ul style="list-style-type: none"> • Develop and secure fluency in addition and subtraction facts within 10, through continued practice. • Compose numbers to 10 from 2 parts, and partition numbers to 10 into parts, including recognising odd and even numbers. (Y1) • Use number bonds and subtraction facts within 20 E.g. $14+6=20$ $20-6=14$ (Y1) • Recall and use addition and subtraction facts to 20 fluently. (Y2) • Derive and use related facts up to 100 $2+3=5$ so $20+30=50$ • Show that addition of two numbers can be done in any order (commutative) and subtraction of one number from another cannot. (Y2) | <ul style="list-style-type: none"> • Calculate complements to 100. • Solve problems, including missing number problems, using number facts, place value and more complex addition and subtraction. | <ul style="list-style-type: none"> • Add and subtract negative integers |
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