Reasoning and Problem Solving Step 8: Add and Subtract 10s

National Curriculum Objectives:

Mathematics Year 2: (2C2a) <u>Add and subtract numbers mentally, including: a two-digit</u> <u>number and tens</u> Mathematics Year 2: (2C2b) <u>Add and subtract numbers using concrete objects and</u> <u>pictorial representations, including: a two-digit number and tens</u>

Differentiation:

Questions 1, 4 and 7 (Problem Solving)

Developing Cross out counters on a place value chart to show the multiple of 10 that has been subtracted. Calculation represented horizontally using numerals.

Expected Cross out counters on a place value chart to show the multiple of 10 that has been subtracted. Calculation in column format using numerals.

Greater Depth Identify the missing multiple of 10 to complete the calculation. Calculation in column format using numerals.

Questions 2, 5 and 8 (Reasoning)

Developing Explain whether a calculation to solve a problem involving adding or subtracting a multiple of 10 is correct. Calculations presented in a place value chart. Expected Explain whether a calculation to solve a problem involving adding or subtracting a multiple of 10 is correct. Calculations presented in column format with some pictorial support.

Greater Depth Explain whether a calculation to solve a two-step problem involving adding and subtracting a multiple of 10 is correct. Calculations presented in column format using numerals with no pictorial support.

Questions 3, 6 and 9 (Problem Solving)

Developing Insert the correct symbols to complete a calculation. Calculations presented horizontally using pictorial representation and in a place value chart.

Expected Insert the correct symbols to complete a calculation. Calculations presented in column format with some pictorial support.

Greater Depth Insert the correct symbols to complete a two-step calculation involving addition and subtraction. Calculations presented using numerals and words.

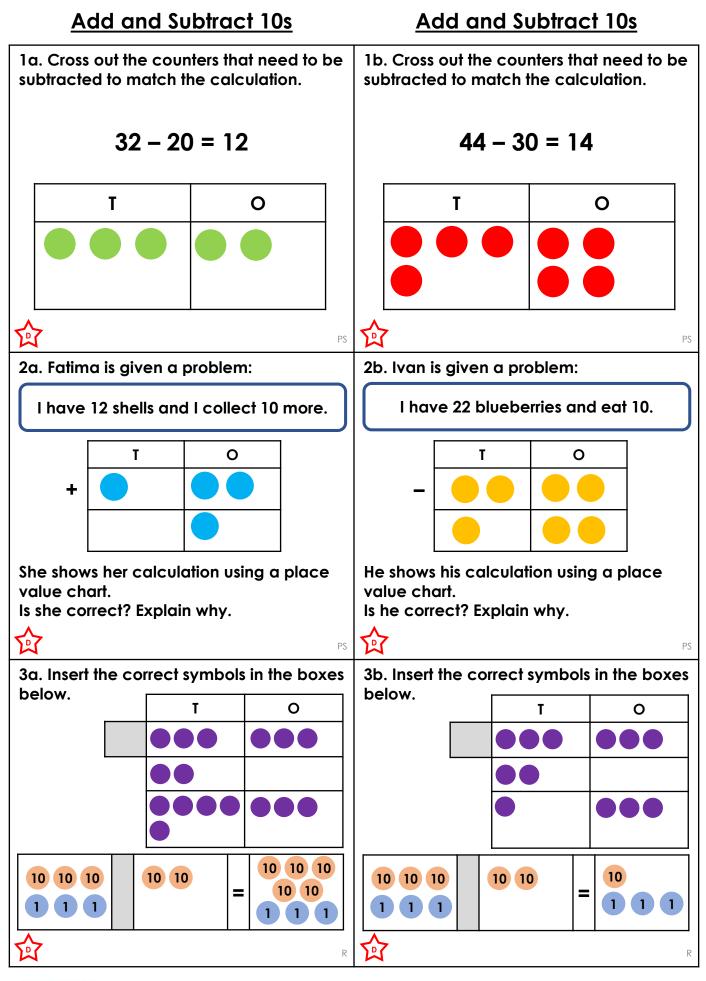
More Year 2 Addition and Subtraction resources.

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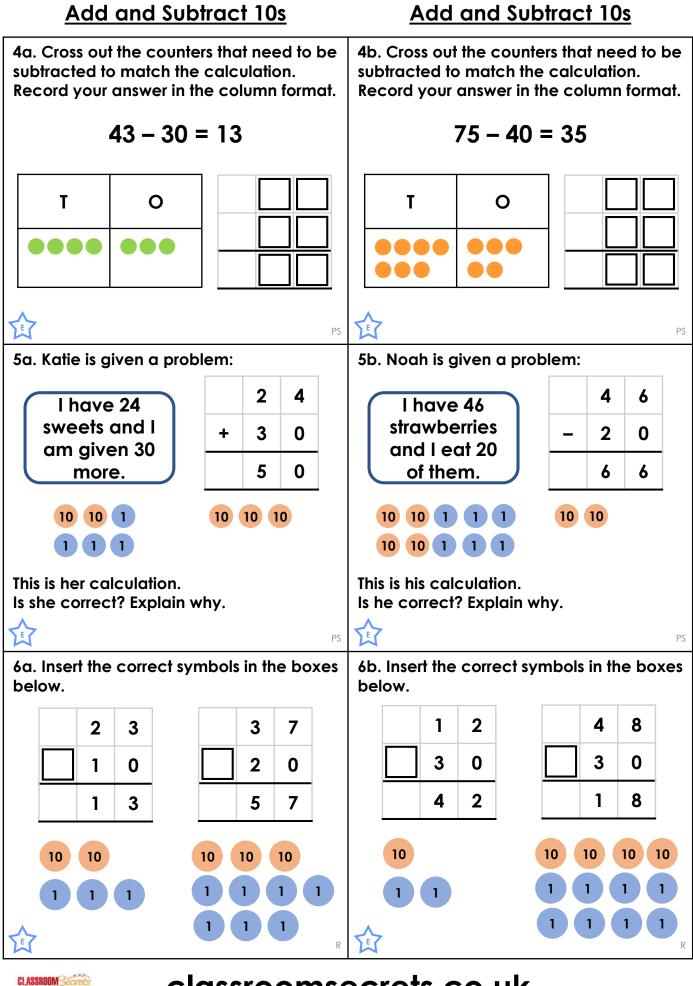
Reasoning and Problem Solving – Add and Subtract 10s – Teaching Information



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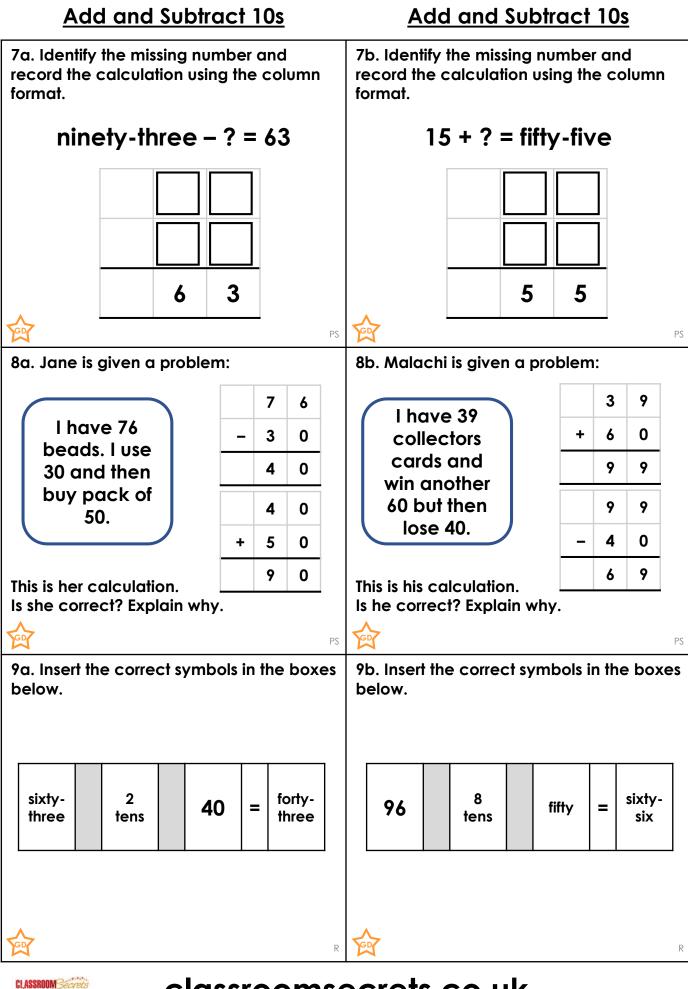
Reasoning and Problem Solving – Add and Subtract 10s – Year 2 Developing



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Reasoning and Problem Solving – Add and Subtract 10s – Year 2 Expected



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Reasoning and Problem Solving – Add and Subtract 10s – Year 2 Greater Depth

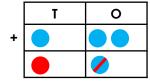
Reasoning and Problem Solving Add and Subtract 10s

Developing

1a. Cross out 2 counters in the tens column

2a. Fatima is incorrect. She has put the counter in the ones rather than tens. Correct representation:

12 + 10 = 22



3a. + and +

Expected

4a. Cross out 3 counters in the tens column; 43 – 30 = 13 5a. Katie is incorrect. 24 + 30 = 54 She has only added the tens. 6a. – and +

<u>Greater Depth</u>

7a. Subtract 30; 93 – 30 = 63 8a. Jane is incorrect. 76 – 30 = 46 then 46 + 50 = 96

She has only calculated the tens in the first part which means her second part is also incorrect. 9a. 63 + 20 - 40 = 43 Reasoning and Problem Solving Add and Subtract 10s

Developing

1b. Cross out 3 counters in the tens column.

2b. Ivan is incorrect. He has subtracted 12 rather than 10.

Correct representation:

22 – 10 = 12



3b. – and –

Expected

4b. Cross out 4 counters in the tens column; 75 – 40 = 35 5b. Noah is incorrect. 46 – 20 = 26 He has added the tens rather than subtracting them. 6b. + and –

Greater Depth 7b. Add 40; 15 + 40 = 55 8b. Malachi is incorrect. 39 + 60 = 99 then 99 - 40 = 59 He has made an error subtracting 4 from 9 in the second part. 9b. 96 - 80 + 50 = 66



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Reasoning and Problem Solving – Add and Subtract 10s ANSWERS