

## National Curriculum References (taken from the Year 1 Programme of Study)

### Statutory requirements

Pupils should be taught to:

- solve one-step problems involving multiplication and division, by calculating the answer using concrete objects, pictorial representations and arrays with the support of the teacher.

### Notes and guidance (non-statutory)

Through grouping and sharing small quantities, pupils begin to understand: multiplication and division; doubling numbers and quantities; and finding simple fractions of objects, numbers and quantities.

They make connections between arrays, number patterns, and counting in twos, fives and tens.

### Statutory requirements

Pupils should be taught to:

- read, write and interpret mathematical statements involving addition (+), subtraction (−) and equals (=) signs
- represent and use number bonds and related subtraction facts within 20
- add and subtract one-digit and two-digit numbers to 20, including zero
- solve one-step problems that involve addition and subtraction, using concrete objects and pictorial representations, and missing number problems such as  $7 = \square - 9$ .

### Notes and guidance (non-statutory)

Pupils memorise and reason with number bonds to 10 and 20 in several forms (for example,  $9 + 7 = 16$ ;  $16 - 7 = 9$ ;  $7 = 16 - 9$ ). They should realise the effect of adding or subtracting zero. This establishes addition and subtraction as related operations.

Pupils combine and increase numbers, counting forwards and backwards.

They discuss and solve problems in familiar practical contexts, including using quantities. Problems should include the terms: put together, add, altogether, total, take away, distance between, difference between, more than and less than, so that pupils develop the concept of addition and subtraction and are enabled to use these operations flexibly.

## Double Trouble

Once upon a time there were twin sisters called Millie and Mollie. Millie and Mollie loved being twins and they loved doing everything together. They wore the same clothes, they ate the same food, they played the same games and they went to the same school, in the same class.

One day, Millie and Mollie went to the supermarket with their mum. They felt very grown up, because their mum had asked them to help her with the shopping. They puffed up their chests importantly and smiled proud, grown-up smiles at everyone they could see.

'Right, girls', said Mum, 'Here's what we're going to do. I've got some things that I need to get for me and Dad, so I'll get those. We also need some things for you two, so I've got a list of things for you and you can go off and find them. But don't forget, you need to get enough for both of you, so everything I tell you to get, you have to double it!'

Millie and Mollie looked at each other doubtfully. That sounded tricky! But there was no time to get worried, because Mum had handed the list to Millie and bustled off.

Millie looked at Mollie. Mollie looked at Millie. 'Right,' said Millie. 'Right,' said Mollie. They looked at the list together.

The first things they needed to get were bread rolls. Mum had written that they needed five; one for each day of school.

Millie scratched her head. 'OK,' she said, 'so that's five for me...'

'And five for me', finished Mollie. 'Five, doubled, makes...'

'Ten!' said Millie. So they picked out ten soft, fluffy rolls and put them in the basket.

'Next!' they said together. The next item on the list was eggs. Mum said Millie and Mollie needed seven eggs each; one for every breakfast this week.

Mollie rubbed her chin. 'OK, she said, 'so that's seven for me...'

'And seven for me', finished Millie. 'Seven, doubled, makes...'

'Fourteen!' said Mollie. So they picked out fourteen brown, speckled eggs and put them in the basket.

The next item on the list was tomatoes. Mum said Millie and Mollie needed nine cherry tomatoes each.

Millie chewed her fingernail. 'OK', she said, 'so that's nine for me...'

'And nine for me,' finished Mollie. 'Nine, doubled, makes...'

'Eighteen!' said Millie. So they put eighteen juicy, ripe tomatoes into the basket.

The last item on the list was sweets! Mum said that Millie and Mollie were allowed eight sweets each.

Mollie grinned at Millie. 'Yummy!' she said, 'So that's eight for me...'

'And eight for me,' finished Millie. 'Eight, doubled, makes...'

'Sixteen!' said Mollie. So they carefully chose sixteen chewy, scrummy sweets and put them into the basket. Then they went to find Mum.

Uh oh! Mum looked stressed out. 'Millie and Mollie,' she wailed, 'I'm trying to fill my shopping basket with the right number of things, but I'm getting all confused! I need enough for me and Dad, but I can't seem to work out the doubles. Oh, it's such a mess!'

Millie and Mollie looked at each other. Together they turned to Mum and smiled. 'We can help!' they said.

Mum needed ten yoghurts, two courgettes, one stick of celery, three slices of turkey and four apples. So Millie and Mollie thought hard. Quickly they raced around the supermarket. They doubled the ten yoghurts and put twenty in the basket. They doubled the two courgettes and put four in the basket. They doubled the stick of celery and put two in the basket. They doubled the three slices of turkey and put six in the basket. And finally, they doubled the four apples and put eight in the basket.

Mum was very impressed! 'My goodness', she said, 'You two really are expert doublers!'

Millie and Mollie smiled proudly. 'Double doublers!' they chuckled.

The end.

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