## Mathematics Year 2 expectations

## Working towards the expected standard

The pupil can:

- demonstrate an understanding of place value, though may still need to use apparatus to support them (e.g. by stating the difference in the tens and ones between 2 numbers i.e. 77 and 33 has a difference of 40 for the tens and a difference of 4 for the ones; by writing number statements such as $35<53$ and $42>36$ )
- count in twos, fives and tens from 0 and use counting strategies to solve problems (e.g. count the number of chairs in a diagram when the chairs are organised in 7 rows of 5 by counting in fives)
- read and write numbers correctly in numerals up to 100 (e.g. can write the numbers 14 and 41 correctly)
- use number bonds and related subtraction facts within 20 (e.g. $18=9+? ; 15=6+$ ?)
- add and subtract a two-digit number and ones and a two-digit number and tens where no regrouping is required (e.g. $23+5 ; 46+20$ ), they can demonstrate their method using concrete apparatus or pictorial representations
- recall doubles and halves to 20 (e.g. pupil knows that double 2 is 4 , double 5 is 10 and half of 18 is 9 )
- recognise and name triangles, rectangles, squares, circles, cuboids, cubes, pyramids and spheres from a group of shapes or from pictures of the shapes.


## Working at the expected standard

The pupil can:

- partition two-digit numbers into different combinations of tens and ones. This may include using apparatus (e.g. 23 is the same as 2 tens and 3 ones, which is the same as 1 ten and 13 ones)
- add 2 two-digit numbers within 100 (e.g. $48+35$ ) and can demonstrate their method using concrete apparatus or pictorial representations
- use estimation to check that their answers to a calculation are reasonable (e.g. knowing that $48+35$ will be less than 100)
- subtract mentally a two-digit number from another two-digit number when there is no regrouping required (e.g. 74-33)
$\square$ recognise the inverse relationships between addition and subtraction and use this to check calculations and work out missing number problems (e.g. $\Delta-14=28$ )
- recall and use multiplication and division facts for the 2,5 and 10 multiplication tables to solve simple problems, demonstrating an understanding of commutativity as necessary (e.g. knowing they can make 7 groups of 5 from 35 blocks and writing $35 \div 5=7$; sharing 40 cherries between 10 people and writing $40 \div 10=4$; stating the total value of six 5 p coins)
- identify $1 / 3,1 / 4,1 / 2,2 / 4,3 / 4$ and knows that all parts must be equal parts of the whole.
- use different coins to make the same amount (e.g. use coins to make 50 p in different ways; work out how many £2 coins are needed to exchange for a £20 note)
- read scales in divisions of ones, twos, fives and tens in a practical situation where all numbers on the scale are given (e.g. pupil reads the temperature on a thermometer or measures capacities using a measuring jug)
- read the time on the clock to the nearest 15 minutes
- describe properties of 2-D and 3-D shapes (e.g. the pupil describes a triangle: it has 3 sides, 3 vertices and 1 line of symmetry; the pupil describes a pyramid: it has 8 edges, 5 faces, 4 of which are triangles and one is a square).


## Working at greater depth

The pupil can:

- reason about addition (e.g. that the sum of 3 odd numbers will always be odd)
- use multiplication facts to make deductions outside known multiplication facts (e.g. a pupil knows that multiples of 5 have one digit of 0 or 5 and uses this to reason that $18 \times 5$ cannot be 92 , as it is not a multiple of 5 )
- work out mental calculations where regrouping is required (e.g. $52-27 ; 91-73$ )
- solve more complex missing number problems (e.g. $14+\square-3=17 ; 14+\Delta=15+27$ )
- determine remainders given known facts (e.g. given $15 \div 5=3$ and has a remainder of 0 , pupil recognises that $16 \div 5$ will have a remainder of 1 ; knowing that $2 \times 7=14$ and $2 \times 8=16$, pupil explains that making pairs of socks from 15 identical socks will give 7 pairs and one sock will be left)
- solve word problems that involve more than one step (e.g. "which has the most biscuits, 4 packets of biscuits with 5 in each packet or 3 packets of biscuits with 10 in each packet?")
- recognise the relationships between addition and subtraction and can rewrite addition statements as simplified multiplication statements (e.g. $10+10+10+5+5=3 \times 10+2 \times 5=$ $4 \times 10$ )
- find and compare fractions of amounts (e.g. $1 / 4$ of $£ 20=£ 5$ and $1 / 2$ of $£ 8=£ 4$, so $1 / 4$ of $£ 20$ is greater than $1 / 2$ of $£ 8$ )
- read the time on the clock to the nearest 5 minutes
- read scales in divisions of ones, twos, fives and tens in a practical situation where not all numbers on the scale are given.
- describe similarities and differences of shape properties (e.g. finds 2 different 2-D shapes that only have one line of symmetry; that a cube and a cuboid have the same number of edges, faces and vertices but can describe what is different about them).

