Can I say what needs to be added to a two-digit number to make the next multiple of ten?
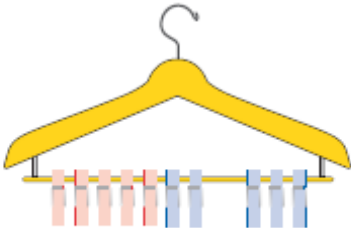
Teaching guidance

Key vocabulary

multiple of ten, two-digit number, add, total, altogether, how many more to make…?

Models and images, resources and equipment

Pairs of numbers that total ten

$10 = 7 + 3$

$6 + ? = 10$ $? + 6 = 10$
$10 - 6 = ?$ $10 - 4 = 6$

Show how number facts to ten can help recall pairs of numbers that total 20

$20 = 12 + 8$ $8 + 12 = 20$
$20 - 8 = 12$ $20 - 12 = 8$
$(10 + 2 + 8 = 10 + 10 = 20)$

100-bead strings

$37 + \square = 40$

$40 - \square = 37$

Use the colour of the beads to help children visually see how number facts to ten can help you say what needs to be added to any two-digit number to make the next multiple of ten.

Teaching tips

- While it is possible for children to count on in ones to work out what needs to be added to make the next multiple of ten, it is important that children are moved on as quickly as possible to using number facts. If they are not confident with recalling pairs that make 10, refer to the 'Can I recall all addition and subtraction facts for each number to 10?' section of this resource.

- Start by focusing on the 'teens' numbers and helping children say what needs to be added to make 20. Model how they can derive new facts from known ones. For example, use models and images and practical materials to show how knowing that $8 + 2 = 10$ can help you know that $18 + 2 = 20$.

- Start with a known number fact to 10, for example $8 + 2 = 10$, and build up a pattern of facts that can be derived using this number fact.

    $18 + 2 = 20$

    $28 + 2 = 30$

    $38 + 2 = 40$

    $48 + 2 = 50$, etc.

    Encourage children to describe what they notice about the sequence of numbers. Help them to refine their explanations via the use of appropriate mathematical vocabulary and use of complete sentences. This is good practice for all children and also very supportive of EAL learners as it allows them to hear an explanation expressed more than once and helps them to embed their own understanding of language structures.

- Model, and then encourage children to record, how these calculations can be represented using a number line.
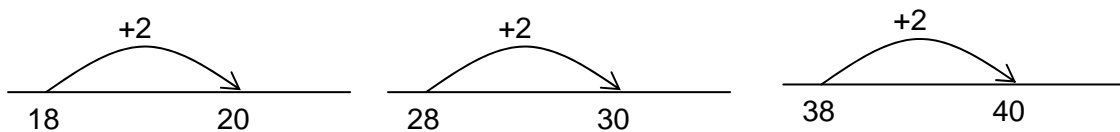
- Being able to say what needs to be added to a two-digit number to make the next multiple of ten will support children when:
    - adding and subtracting a one-digit number to/from a two-digit number and bridging through a multiple of ten (see the 'Can I add or subtract a one-digit number to or from a two-digit number [bridging through a multiple of ten]?' section of this resource);
    - finding the difference between two numbers (see the 'Can I find the difference between a pair of numbers?' section of this resource).