Can I recall all addition and subtraction facts for each number to 10?

Teaching guidance

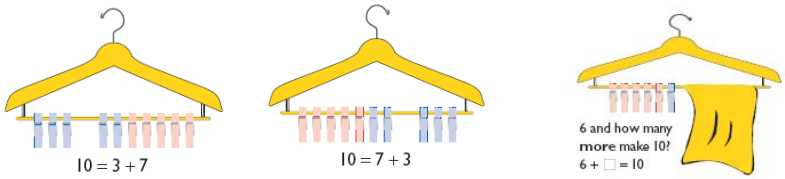
Key vocabulary

add, total, sum, plus, subtract, take away, difference, minus, equals, number fact, pair, number sentence, pattern

Models and images, resources and equipment

Coat hanger and pegs

Place coloured pegs in groups of five to help children visualise number facts.

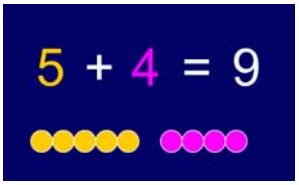


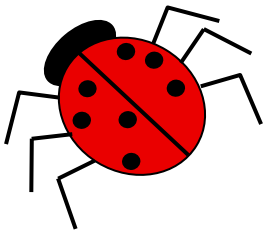
Jigsaw to make pairs to ten

7 + 3 = 10

8 + ? = 10

Use counters and then the Number facts ITP to build an image of each number up to ten



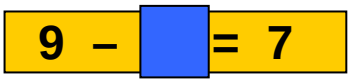


Sets and dividers

Children can explore the number pattern created by splitting a set in different ways.

1 + 6 = 7
2 + 5 = 7
3 + 4 = 7
4 + 3 = 7

Slidey box cards



Ask children to suggest the number that is hidden. The 'slider' can be moved to cover different numbers in the calculation.

Teaching tips

- Plan regular activities for children to learn, rehearse and apply number facts rather than simply testing their recall. Children will forget facts unless they are given frequent and varied opportunities to recall and use them. Encourage children to say the answer as a number sentence, e.g. '2 add 5 equals 7', as this helps to link the question to the answer and can help them to use the full range of vocabulary associated with addition and subtraction.
- Use a variety of strategies and activities to help children to learn facts, including:
    - kinaesthetic – for example use fingers, manipulate objects, use actions;
    - visual – use images and models such as flashcards, bead strings;
    - oral – make up a rhyme for a difficult fact; all say the 'fact of the day' at the start and end of every teaching session;
    - written – children can make their own flashcards;
    - patterns – these can help children to learn a set of facts (e.g. 1 + 8 = 9, 2 + 7 = 9, 3 + 6 = 9).
- Games provide a good vehicle for learning facts. For example:
    - Pelmanism – Children match number fact cards that have the same answer.
    - Totalled – Share out a pack of playing cards (with picture cards removed). Agree a total (e.g. 10). Children take turns to place a card on the table. The first player to spot a combination that makes the chosen total wins all of the cards on the table.
- Remind children of BOGOF (Buy One, Get Others Free), for example the fact 2 + 6 = 8 gives you three 'free' facts: 6 + 2 = 8, 8 - 6 = 2 and 8 - 2 = 6. Rehearse addition and subtraction facts together to reinforce the link.
- Use a resource such as a coat hanger and ten pegs to partition 10 in lots of different ways. Repeat with other numbers of pegs, e.g. 8. Demonstrate commutivity, for example show 3 + 5 = 8 and then turn the coat hanger round to show 5 + 3 = 8. Cover up the three pegs with a cloth and ask what number sentence this could represent, for example:

  5 + □ = 8 and 8 - □ = 5.
- Encourage children to keep track of the facts they have learned, for example through colouring known facts on an addition square. This can help them to identify which facts they need to learn next.
- Ensure that children meet number facts written in different ways.

  ■ + 6 = 7 8 = 9 - ★ 10 = ◆ + ●