

**LEARNING and TEACHING POINTS**  
for  
**Chapter 8**  
**Mental Strategies for Addition and Subtraction**

Make it clear to children and parents (and grandparents) that there is no 'proper' way of doing a calculation and that an effective mental or informal method is as valid as a formal written method.

Making numbers up to the next multiple of 10 and to the next multiple of 100 are really important skills in mental additions and subtractions. They should therefore be very specific teaching focuses with primary school children.

When formal written methods have been taught, encourage children still to look for an easier way to do additions and subtractions by mental and informal methods first, before resorting to formal written algorithms.

Prerequisite skills for being good at mental strategies for addition and subtraction include: doubling single-digit and two-digit numbers; adding and subtracting multiples of 5. Focus on these in oral and mental sessions with children.

Confidence in counting backwards and forwards in ones, tens and hundreds is an essential prerequisite for effective mental calculation, so these skills should be taught specifically and reinforced frequently.

Teach children specifically the strategies outlined in this chapter and give them opportunities to discuss different ways of tackling additions and subtractions by mental methods supported by jottings and empty number line diagrams.

Take every opportunity to explain mental strategies with reference to hundred squares and empty number lines, in order to provide children with mental images that will underpin their manipulation of numbers.