Addition and subtraction as inverses lesson plan

DAY	We Are Learning To (WALT):	MODEL / INTRODUCTION	INDEPENDENT WORK	PLENARY
	Mental: Main: Understand addition and subtraction as inverses	Mental: Main: Briefly revise how to add and subtract on number line. What do children notice about the direction that you move? Briefly revise how to add and subtract multiples of ten on a hundred square. What do children notice about the direction that you move? Explain how addition and subtraction are inverse (opposite) This means that we can use addition to check subtraction and vice versa. Model how to do this with some subtractions that are incorrect e.g. to check 6 - 4 = 3, we can do 4 + 2 = 6 and see that we made a mistake with the subtraction Explain how we can also write two different addition and two different subtraction number sentences using the same numbers, just by swapping the order of the numbers around e.g. 8 – 5 = 3, 8- 3 = 5, 5 + 3 = 8 and 3 + 5 = 8 Emphasise need to check number sentences are correct, not just swap around the numbers in any way Model swapping the numbers around incorrectly e.g. 8 – 5 = 3, 8- 3 = 5, 5 + 3 = 8 and 3 + 8 = 5 (To help you can tell children that addition sentences will always end in the largest number, whereas subtraction sentences always end in the smallest number, although this is not true once children work with negative numbers)	Lower ability – write **one** addition and **one** subtraction sentence as inverses e.g. 8 – 5 = 3 and 5 + 3 = 8 Middle ability – write **two** addition and **two** subtraction sentence as inverses e.g. 8 – 5 = 3, 8- 3 = 5, 5 + 3 = 8 and 3 + 5 = 8 Higher ability – as middle ability, but with multiples of 10 G+T – as middle ability, but with multiples of 100 Extension – make up their own number sentences	Each child to give a partner a number sentence to write an inverse sentence / s to go with. Partners discuss if agree about number sentences that each of them has written