5. Calculating	Use **pupil booklet** and **uncover one question** at a time.	

Knowledge and Skills	5.1 Addition	
Activity	**Task and Question**	**Responses and Observations Strengths/Difficulties/Strategies used**
Addition within 10 You need: Pencil, Pupil number booklet (p.2), Card to cover questions and reveal one by one as required. Note: C – familiar concrete materials e.g. P- pictorial could be : THl lll A -Abstract – written numbers/ mental methods	a. 7 + 3 Solve this using one of these resources. (Offer pupil small selection of concrete materials= C) b. 4 + 5 Show me how you would solve this using this number line. (P) c. 3 + 6 Solve this in the quickest way you can. (ask how the pupil solved it if not obvious) d/e/f. Solve these missing number questions using a method that works for you. g. Ask the pupil to read the question aloud (if they struggle/you know they have a low reading age) read it for them.) Solve this in a way that works well for you.	Preferred concrete material: Circle level pupil is working at within this number range: Concrete / Pictorial / Abstract (CPA) Missing numbers: Able to read the question? - Y/N C/P/A (circle)
Addition within 20 (**Only** move to this number range if successful within 10 and able to work within the abstract level at least some of the time.) Blue Pupil Booklet (p. 3)	a. 13 + 6 Solve this using one of these resources. (Offer pupil small selection of concrete materials= C) b. 3 + 14 Show me how you would solve this using this number line. (P) c. 15 + 4 Solve this in the quickest way you can. (ask how the pupil solved it if not obvious) d/e/f. Solve these missing number questions using a method that works for you. g Solve this in a way that works well for you. (Read for the pupil if required.)	Which number does the pupil start counting from? C/P/A (circle) C/P/A (circle)

Addition within 100 (**Only** move to this number range if successful within 20 and able to work at the abstract level at least some of the time.) Blue Pupil Booklet (p. 4)	a. 28 + 5 Solve this in a way that works well for you. b. 34 + 53 Solve this in a way that works well for you. c. 56 + 27 Solve this in a way that works well for you. d. Solve this in a way that works well for you.	C/P/A (circle) Bridging through 10 – Y/N Bar modelling? Formal methods/concrete/pictorial
Addition 0-999 (**Only** move to this number range if successful within 100 and able to work at the abstract level at least some of the time.) Blue Pupil Booklet (p. 4)	a. 413 + 26 Can you write this out this sum set out in columns – use the squared paper to help you. Can you answer it now? (If the pupil has written it out incorrectly note and write it out for them to solve.) b. 645 + 17 Write out this sum in columns and solve it. (Write out for pupil if they had difficulties in a.)	Able to set out sum correctly? Y/N
Knowledge and Skills	**5.2 Subtraction** Use **pupil booklet** and **uncover one question** at a time.	
Subtraction within 10 Complete as for addition above. Blue Pupil Booklet (p. 5)	a. 8 – 3 Solve this using (offer small selection of concrete materials= C) b. 7 – 4 Show me how you would solve this using this number line. (P) c. 6 – 2 Solve this in the quickest way you can. (ask how the pupil solved it if not obvious) d/e/f. Solve these missing number questions using a method that works for you. g. Solve this in a way that works well for you. (Read aloud for pupil if needed.)	Preferred concrete material: Circle level the pupil is working at within this number range: Concrete / Pictorial / Abstract (CPA) Missing numbers: Method used:

Subtraction within 20 (**Only** move to this number range if successful within 10 and able to work within the abstract level at least some of the time.) Blue Pupil Booklet (p. 6)	a. 14 - 7 Solve this using (offer small selection of concrete materials= C) b. 13 - 6 Show me how you would solve this using this number line. (P) c. 18 - 5 Solve this in the quickest way you can. (ask how the pupil solved it if not obvious) d/e/f. Solve these missing number questions using a method that works for you. g. Solve this in a way that works well for you. (Read for pupil if required.)	Count back/count on method?
Subtraction within 100 (**Only** move to this number range if successful within 20 and able to work at the abstract level at least some of the time.) Blue Pupil Booklet (p. 7)	a. 37 - 9 Solve this in a way that works well for you. b. 28 - 12 Solve this in a way that works well for you. c. 23 - 17 Solve this in the quickest way you can. (ask how the pupil solved it if not obvious) d. Solve this in a way that works well for you. (Read for pupil if required.)	Bar modelling? Formal methods/concrete/pictorial
Subtraction 0-999 (**Only** move to this number range if successful within 100 and able to work at the abstract level at least some of the time.) Blue Pupil Booklet (p. 7)	a. 678 - 26 Can you write this sum set out in columns – use the squared paper in the booklet to help you. Can you answer it now? (If the pupil has written it out incorrectly note and write it out for them to solve.) b. 678 - 39 Write out this sum in columns and solve it. (Write out for pupil if they had difficulties in a.)	Able to set out sum correctly? Yes/No

Knowledge and Skills	5.3 Addition and Subtraction Inverses Use pupil booklet and uncover one question at a time	
Commutative law with addition sums Addition and subtraction inverse of each other. Blue Pupil Booklet (p. 8)	Using just these numbers how many sums can you make? What do you notice about any of these sums you have written?	Able to write inverse? 4 + 3 = 7/ 3 + 4 =7/ 7 -3 = 4/ 7 - 4 = 3 (circle) Sums written like: 7= 3 + 4 are also correct

Knowledge and Skills	5.4 Multiplication Use pupil booklet and uncover one question at a time	
Using strategies to solve a multiplication sum. Applying multiplication skills in a word problem. Blue Pupil Booklet (p. 8)	a. 4 x 7 Can you answer this? If you don't just know it, can you think how you could work it out? b. Solve this in a way that works well for you.	Known fact? Strategies to work out answer?

Knowledge and Skills	5.5 Division Use pupil booklet and uncover one question at a time	
Using strategies to solve a division sum. Blue Pupil Booklet (p. 8)	a. 24 ÷ 4 Can you answer this? If you don't just know it, can you think how you could work it out?	Using multiplication tables? Sharing /grouping/ drawing /concrete material?
Sharing	b. Solve this in a way that works well for you.	
Grouping	c. Solve this in a way that works well for you	
Remainders	d. Solve this in a way that works well for you	