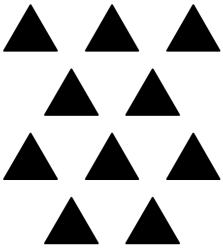
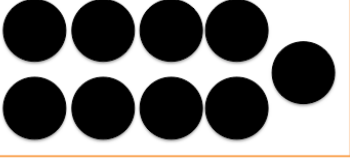
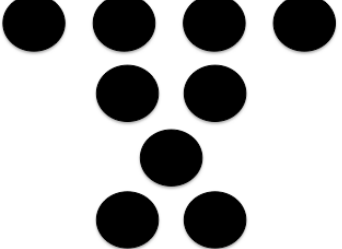
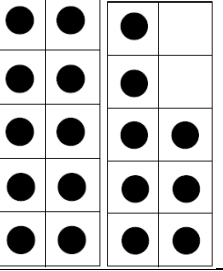
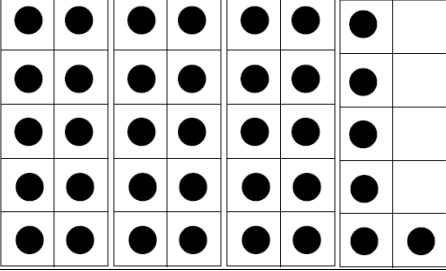
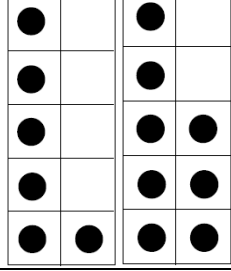
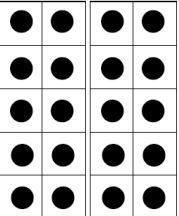
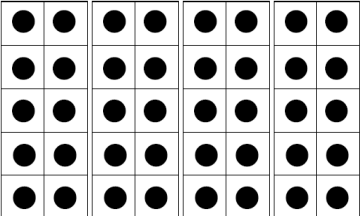
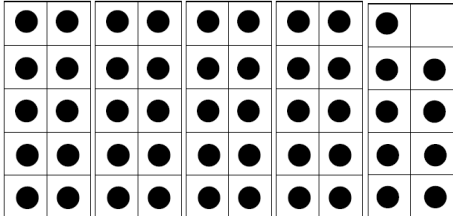


TYPE OF TALK	Dot Cards (Visual patterns) <ul style="list-style-type: none"> Do not suggest procedures All learners should participate Promote confidence in talking about maths Develop maths vocabulary Allow multiple solution strategies 		
OBJECT OF LEARNING	1. Learners explain their thinking: <i>HOW</i> they <i>SEE</i> it and <i>WHY</i> it makes <i>SENSE</i> 2. Learners develop increasingly flexible and efficient strategies	Learners begin to: 3. See and use numbers flexibly 4. Reason abstractly 5. Speak mathematically	
PROMPT			
QUESTIONS	<p>How many? How do you see it? Can you convince me? Can you give at least 2 different ways of checking how many there are?</p> <p>Subsequent questions must clarify what they see, not how they should see it:</p> <ul style="list-style-type: none"> Does that make sense? Do you see a pattern? Can you explain the pattern? <p>Which is the quickest for you? Why? Which allows you to be more accurate? Why?</p>		
ANTICIPATED RESPONSES			

TYPE OF TALK	10 frames A strong sense of "ten" is key for place-value understanding and mental calculations. 10-frames are useful tools for developing number sense. The ten-frame prompts students to form mental images of the numbers represented. <ul style="list-style-type: none"> Do not suggest procedures All learners should participate Promote confidence in talking about maths Develop maths vocabulary Allow multiple solution strategies 		
OBJECT OF LEARNING	• Learners explain their thinking: <i>HOW</i> they <i>SEE</i> it and <i>WHY</i> it makes <i>SENSE</i> • Learners develop increasingly flexible and efficient strategies	Learners begin to: • See and use numbers flexibly • Reason abstractly 3. Speak mathematically	
PROMPT			
QUESTIONS	<p>How many do you see? Can you convince me? Can you give at least 2 different ways of checking how many there are?</p> <p>Which is the quickest for you? Why? Which allows you to be more accurate? Why?</p>		
ANTICIPATED RESPONSES			

TYPE OF TALK	Addition and subtraction strategies <i>In this talk, we focus on developing addition and subtraction strategies (see separate chart for description of these strategies). The prompts are carefully selected to elicit certain strategies.</i>					<ul style="list-style-type: none">Do not suggest proceduresAll learners should participatePromote confidence in talking about mathsDevelop maths vocabularyAllow multiple solution strategies
OBJECT OF LEARNING	<ul style="list-style-type: none">Learners explain their thinking: HOW they SEE it and WHY it makes SENSELearners develop increasingly flexible and efficient strategies			<i>Learners begin to:</i> <ul style="list-style-type: none">See and use numbers flexiblyReason abstractlySpeak mathematically		
PROMPT ADDITION	MAKING TENS 7 + 5 7 + 13 7 + 25 9 + 1 + 4 2+6+8+3+4 5+3+5+4+7	DOUBLES/NEAR DOUBLES 15 + 16 17 + 15 49 + 49 48 + 49 99 + 97 398 + 398	BREAKING INTO PLACE VALUE 36 + 22 12 + 37 13 + 14 24 + 32	LANDMARK NUMBERS 48 + 6 48 + 17 23 + 48 48 + 47 28 + 5 + 27 24 + 3 + 48	COMPENSATION 19 + 6 9 + 16 9 + 26 29 + 6 28 + 29 23 + 19	
PROMPT SUBTRACTION	ADDING UP 90 - 79 90 - 74 90 - 49 90 - 44 125 - 75 125 - 83	EASIER PROBLEM 49 - 28 59 - 28 99 - 69 101 - 68	REMOVAL 35 - 10 35 - 13 35 - 20 35 - 22 23 - 14 23 - 18 23 - 15	CONSTANT DIFFERENCE 20 - 15 19 - 14 21 - 16 41 - 16 151 - 126 171 - 136		
QUESTIONS	What is your answer and HOW did you work it out?					
ANTICIPATED RESPONSES						

TYPE OF TALK	10 frames for multiplication by 10 <i>In this talk, we use the 10-frame to focus on multiplication by 10 and then to multiplying by 10 and adding more (as in example 3 below)</i>		<ul style="list-style-type: none">Do not suggest proceduresAll learners should participatePromote confidence in talking about mathsDevelop maths vocabularyAllow multiple solution strategies
OBJECT OF LEARNING	<ul style="list-style-type: none">Learners explain their thinking: HOW they SEE it and WHY it makes SENSELearners develop increasingly flexible and efficient strategies	Learners begin to: <ul style="list-style-type: none">See and use numbers flexiblyReason abstractlySpeak mathematically	
PROMPT	<div>1</div>	<div>2</div>	<div>3</div>
QUESTIONS	<p><i>How many do you see?</i></p> <p><i>Can you convince me?</i></p> <p><i>Can you give at least 2 different ways of checking how many there are?</i></p> <p><i>Which is the quickest for you? Why?</i></p> <p><i>Which allows you to be more accurate? Why?</i></p>		
ANTICIPATED RESPONSES			