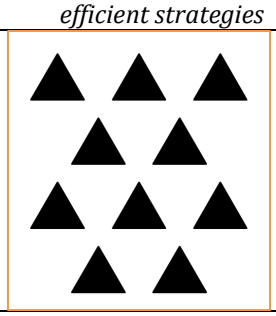
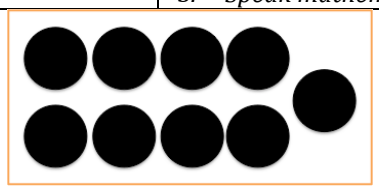
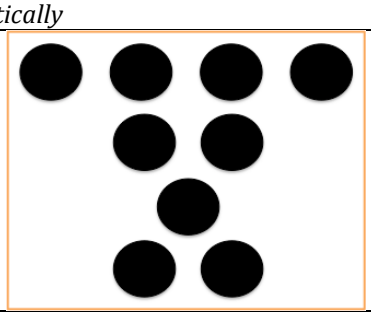
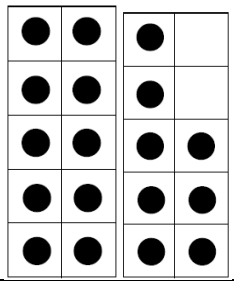
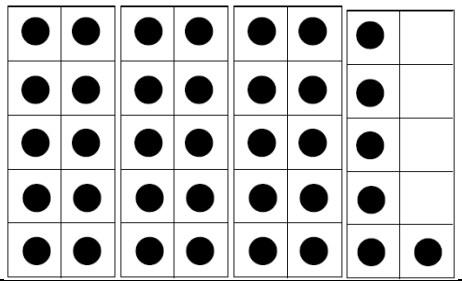
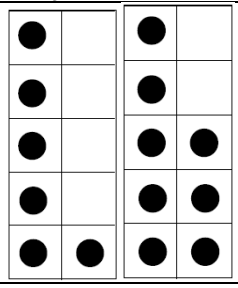
TYPE OF TALK	**Dot Cards** *(Visual patterns)* ▪ *Do not suggest procedures* ▪ *All learners should participate* ▪ *Promote confidence in talking about maths* ▪ *Develop maths vocabulary* ▪ *Allow multiple solution strategies*
OBJECT OF LEARNING	1. *Learners explain their thinking: HOW they SEE it and WHY it makes SENSE* 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	***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?*** *Subsequent questions must clarify what they see, not how they should see it:* • *Does that make sense?* • *Do you see a pattern? Can you explain the pattern?* *Which is the quickest for you? Why?* *Which allows you to be more accurate? Why?*
ANTICIPATED RESPONSES	

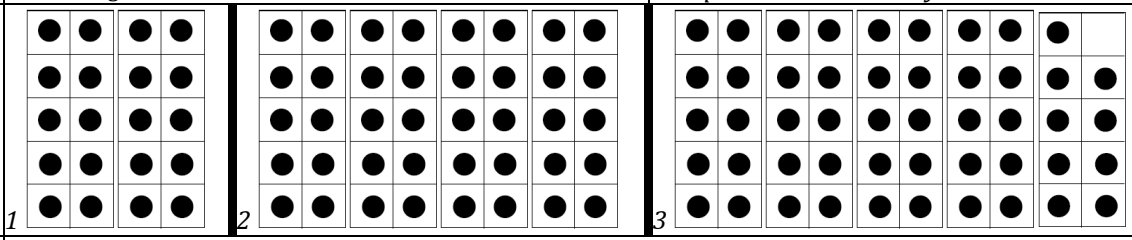
TYPE OF TALK	**10 frames** *A strong sense of "ten" is key for place-value understanding and mental calculations. 10-frames are useful tools for developing number sense. The ten-frame prompts students to form mental images of the numbers represented.* • *Do not suggest procedures* • *All learners should participate* • *Promote confidence in talking about maths* • *Develop maths vocabulary* • *Allow multiple solution strategies*
OBJECT OF LEARNING	• *Learners explain their thinking: HOW they SEE it and WHY it makes SENSE* • *Learners develop increasingly flexible and efficient strategies* *Learners begin to:* • *See and use numbers flexibly* • *Reason abstractly* 3. *Speak mathematically*
PROMPT	  
QUESTIONS	***How many do you see?*** ***Can you convince me?*** ***Can you give at least 2 different ways of checking how many there are?*** *Which is the quickest for you? Why?* *Which allows you to be more accurate? Why?*
ANTICIPATED RESPONSES	

TYPE OF TALK	***Addition and subtraction strategies*** *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****.*	• *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: HOW they SEE it and WHY it makes SENSE* • *Learners develop increasingly flexible and efficient strategies*	*Learners begin to:* • *See and use numbers flexibly* • *Reason abstractly* • *Speak mathematically*

PROMPT ADDITION	**MAKING TENS**	**DOUBLES/NEAR DOUBLES**	**BREAKING INTO PLACE VALUE**	**LANDMARK NUMBERS**	**COMPENSATION**
	7 + 5	15 + 16	36 + 22	48 + 6	19 + 6
	7 + 13	17 + 15	12 + 37	48 + 17	9 + 16
	7 + 25	49 + 49	13 + 14	23 + 48	9 + 26
	9 + 1 + 4	48 + 49	24 + 32	48 + 47	29 + 6
	2+6+8+3+4	99 + 97		28 + 5 + 27	28 + 29
	5+3+5+4+7	398 + 398		24 + 3 + 48	23 + 19

PROMPT SUBTRACTION	**ADDING UP**	**EASIER PROBLEM**	**REMOVAL**	**CONSTANT DIFFERENCE**	
	90 - 79	49 - 28	35 - 10	20 - 15	
	90 - 74	59 - 28	35 - 13	19 - 14	
	90 - 49	99 - 69	35 - 20	21 - 16	
	90 - 44	101 - 68	35 - 22	41 - 16	
	125 - 75		23 - 14	151 - 126	
	125 - 83		23 - 18	171 - 136	
			23 - 15		

QUESTIONS	***What is your answer and HOW did you work it out?***
ANTICIPATED RESPONSES	

TYPE OF TALK	***10 frames for multiplication by 10*** *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)*	• *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: HOW they SEE it and WHY it makes SENSE* • *Learners develop increasingly flexible and efficient strategies*	*Learners begin to:* • *See and use numbers flexibly* • *Reason abstractly* • *Speak mathematically*
PROMPT	 *1* *2* *3*	
QUESTIONS	***How many do you see?*** ***Can you convince me?*** ***Can you give at least 2 different ways of checking how many there are?*** *Which is the quickest for you? Why?* *Which allows you to be more accurate? Why?*	
ANTICIPATED RESPONSES		