PUZZLE TALK

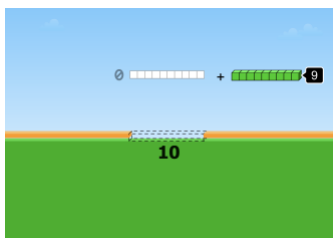| Grade 1	Number Pairs and Making 10	Building Blocks

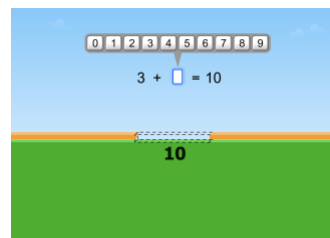|	
Standards	1.OA.6: Add and subtract within 20, demonstrating fluency with various strategies for addition and subtraction within 10. 1.OA.8: Determine the unknown whole number in an addition or subtraction equation relating 3 whole numbers.
Game Description	Practice composing and decomposing numbers less than or equal to 10 using fact families and visual models. Fill in the missing addend to make a sum of 10.
Suggested Puzzles	Level 1 Level 3
Materials	For each student: One Empty Ten Frame Game Mat, ten two-color counters
Directions	• Display the first puzzle for Level 1. • Ask students, "What do you see?" • Ask students, "What can we click/move?" • Ask students, "What does JiJi need us to do?" • Tell students, "Now look at the game mat in front of you. How many squares are on your Game Mat? Yes! 10! Just like the path we need to make for JiJi!" • Tell students, "We are going to put one red counter in each square to represent the blocks that JiJi already has. Now we need to see how many more blocks JiJi needs to complete the path. Use the yellow side of your counters to fill the rest of the squares. What did we find?" • Explicitly state the fact that we represented. For example, "7 and 3 makes 10" or "6 and 4 make 10". • Repeat this process for the remaining puzzles in Level 1.
Sample Questions	• How many spaces are on our game mat in all? • How do we know when we've used 10 counters? • What is one way to make 10? Another? • How do we know when we have found all of the ways to add to make 10?

What to look for	How does the student:
	    • fill the ten frame? (Do they know when it is full? Do they put one counter in each square?)
	    • see 10? (Do they see 10 as part-part-whole?)
	    • started to commit any ways to make 10 facts to memory?

PUZZLE TALK

- Look at the puzzles for Level 2. Now students are given a number of blocks but have to choose the number that represents the missing part.
- Look at the puzzles for Level 3. Now students see only an equation and have to choose the number that represents the missing part.
- Give students a story problem starring JiJi! For example: JiJi reached in the closet and pulled out 10 Bouncing Shoes. Some are red and some are yellow. What could JiJi's 10 bouncing shoes look like? How many could be red? How many could be yellow? Explain.
- Revisit these puzzles but make the connection to subtraction and number bonds ("fact families").